

**VOLUME VI
PERIODIC
REVIEW
DECISION
(October 31,
2005)**

VOLUME VI PERIODIC REVIEW DECISION (October 31, 2005)

18. Winterbrook Memorandum, re: Legislative Amendment 05-01 (Woodburn 2005 Comprehensive Plan Update, October 20, 2005)

19. Staff Report

Ordinance No. 2391

Appendix C to Public Facilities Plan

ADOPTED COMPREHENSIVE PLAN AND DEVELOPMENT ORDINANCE AMENDMENTS, FUNCTIONAL PLANS, AND MAPS

- Exhibit 1 Woodburn Comprehensive Plan Text, 2005
- Exhibit 1-A Woodburn Economic Development Strategy (ECONorthwest, June 2001)
- Exhibit 1-B City of Woodburn Public Facilities Plan (City of Woodburn, October 2005)
- Exhibit 1-C Woodburn Transportation System Plan, Volumes 1 and 2 (CH2M Hill, October 2005)
- Exhibit 1-D Woodburn Local Wetlands Inventory List (Shapiro 2000)
- Exhibit 2 Woodburn Comprehensive Plan Map and Urban Growth Boundary, 2005
- Exhibit 3 Woodburn Development Ordinance and Official Zoning Map, 2005

BACKGROUND DOCUMENTS TO WOODBURN COMPREHENSIVE PLAN

- Exhibit 4-A Woodburn Economic Opportunities Analysis (ECONorthwest, May 2001)
- Exhibit 4-B Woodburn Population and Employment Projections (ECONorthwest memorandum, April 29, 2002)
- Exhibit 4-C Woodburn Occupation/Wage Forecast (ECONorthwest memorandum, March 20, 2003)
- Exhibit 4-D City of Woodburn Local Wetlands Inventory and Riparian Assessment (Shapiro & Associates, 2000)

- Exhibit 4-E Technical Report 1, Buildable Lands Inventory, including Buildable Lands Map (Winterbrook Planning, July, 2005)
- Exhibit 4-F Technical Report 2, Woodburn Residential Land Needs Analysis (Winterbrook Planning, May 2005)
- Exhibit 4-G Technical Report 3, Potential UGB Expansion Area Analysis, Natural Resources Inventory, including agricultural soil capability maps (Winterbrook Planning, November 2003)
- Exhibit 4-H Site Requirements for Target Industries (ECONorthwest memorandum, 2003)
- Exhibit 4-I Citizen Involvement Report, City of Woodburn 2005 Comprehensive Plan Update, LCDC Periodic Review Order #0078, Work Task #10 (Woodburn Community Development Department, October 2005)

LEGISLATIVE FINDINGS IN SUPPORT OF PERIODIC REVIEW AMENDMENT PACKAGE

- Exhibit 5-A Findings of Fact (City Attorney, October 2005)
- Exhibit 5-B Woodburn UGB Justification Report (Winterbrook Planning, October 2005)
- Exhibit 5-C Woodburn 2005 Comprehensive Plan Update, Explanation of Proposed Plan and Zoning Map Changes (Community Development Department, October 2005)

Item 18



COMMUNITY
RESOURCE
PLANNING

MEMORANDUM

To: **Honorable Mayor and Council through City Administrator**
From: Greg Winterowd, Consultant Planer
Date: October 20, 2005
Re: **Legislative Amendment 05-01 (Woodburn 2005 Comprehensive Plan Update)**

MEMORANDUM CONTENTS

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Previous Council Decisions

On September 12, 2005, the Council ended its deliberations on the 2005 Periodic Review Amendment Package and directed staff to prepare an ordinance and findings to support adoption of this legislative package. That evening, the Council also adopted the *Urban Growth Boundary Coordination Agreement* (UGBCA) with Marion County, and directed staff to forward the UGBCA to the Board of Commissioners for its consideration and adoption.

Requested Council Action at Special October 31, 2005 Meeting

Staff requests that the Council adopt by ordinance the 2005 Periodic Review Amendment Package. The adopting ordinance immediately follows this memorandum.

Marion County Coordination and Adoption Process

The Marion County Board of Commissioners co-adopted the UGBCA two weeks ago. The UGBCA spells out how the City and County will coordinate the review and adoption of this and future legislative Comprehensive Plan amendments.

Upon adoption by the Woodburn City Council, the legislative package will be forwarded to Marion County for its consideration and adoption. We will meet with Marion County staff to review the legislative package prior to Board hearings. Adoption by the Marion County Board of Commissioners is expected early in 2006.

State Agency Coordination and Acknowledgment Process

The City of Woodburn and the Oregon Department of Transportation (ODOT) need to mutually adopt two intergovernmental agreements (IGAs). This will be done in the near future, and most likely prior to Marion County's consideration of the legislative package. The first IGA is related to monitoring of vehicle trips within the Interchange Management Area, and is relatively straightforward. It has been discussed conceptually with your Council on previous occasions. The second, related to proportional funding of improvements to the I-5 interchange, has not been discussed with you yet, has significant policy and financial implications for the City, and will require careful Council consideration. Drafts of both these IGAs are included in your packet for your information and inclusion into the record; neither requires any formal Council action at the present time.

Following adoption by the Board, the legislative package will be submitted to the Department of Land Conservation and Development (DLCD) for review and acknowledgment. We will meet with DLCD staff well in advance of this submission. Upon acknowledgment by the Land Conservation and Development Commission (LCDC), Woodburn's ordinance will take effect.

The Council Packet

The Council Packet for the October 31, 2005 special meeting includes three sets of documents and maps:

- (1) **Planning documents and maps to be adopted by the ordinance, including –**
 - a. **The Woodburn Comprehensive Plan, Map, and functional plans:**
 - **The Woodburn Economic Development Strategy (EDS - 2001)**
 - **Chapters 7-9 of the Woodburn Transportation System Plan (TSP – 2005 Update)¹**
 - **The Woodburn Public Facilities Plan (PFP - 2005)² (including appendices and maps)**
 - **The Woodburn Local Wetlands Inventory (2000)**
 - b. **The Woodburn Land Development Ordinance (WDO) and Official Zoning Map (2005)**
 - c. **The Buildable Lands Inventory and Agricultural Soils within Study Areas Maps**

- (2) **Findings of Fact and Conclusions of Law in support of this ordinance, including:**
 - a. **Periodic Review and Statewide Goal 1-8 and 11-13 Findings;**

¹ These policy chapters have been amended for internal consistency. For example, TSP maps now show the adopted correct location of the 2005 UGB and project tables have been amended to address DLCD concerns. Chapters 1-6 have been not changed since the Council's last review.

² The PFP has been shortened substantially by referencing, rather than including verbatim, policy sections from Chapters 7-9 of the TSP.

- b. **The Woodburn UGB Justification Report** (including maps showing Council-directed Comprehensive Plan Map changes; and
- c. **Administrative changes to the *Comprehensive Plan* and *Zoning* maps.**
- d. **A compilation of all pertinent staff reports to City Council since March 2005 related to Periodic Review.**

Item 2 (d) is not new, or revised material, but is provided in the event the Council may have questions regarding the evolution of this project during the past six months.

(3) Draft Intergovernmental Agreements with the Oregon Department of Transportation (ODOT):

- a. A draft IGA regarding the implementation and monitoring of vehicle trips generated by new development within the Interchange Management Area (IMA) Overlay District; and
- b. A draft IGA regarding joint City and ODOT funding for planned I-5 Interchange improvements.³

Although you will not be asked to adopt these agreements at this time, your package includes *drafts* of the IGAs for your early review and comment. Council direction will set parameters to staff for reaching agreement with ODOT.

Finally, also included is a memorandum dated September 13, 2005, which addresses changes to utility costs, by study area, related to the public facilities analysis. This document was intended to be distributed to the Council for its information at the September 19, 2005 meeting, and needs to be included as part of the Council record.

Not Included in Council Packet

The Council Packet does *not* include copies of staff reports, public testimony and other background documents and maps that have been available in previous Council packets. A complete copy of the Planning Commission and Council record is available for review in the Community Development Department.

³ Private developers will be required to pay a significant portion of the City's costs for these improvements, through SDCs (systems development charges) by a separate funding formula, or in combination of the two.

Item 19

October 31, 2005

TO: Honorable Mayor and City Council

FROM: John C. Brown, City Administrator
N. Robert Shields, City Attorney
Greg Winterowd, Planning Consultant

SUBJECT: **Additional Periodic Review Materials
Legislative Amendment 05-01**

RECOMMENDATION:

Receive the additional materials and adopt the ordinance.

BACKGROUND/DISCUSSION:

Several days ago, the City Council was provided an ordinance, with attachments, to be considered at the October 31, 2005 special meeting. Since that time, minor changes have been made to a limited number of documents, which are summarized below and reflected in the attached materials:

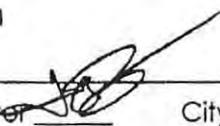
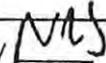
- An updated "Appendix C" was added to the Public Facilities Plan (Exhibit 1-B of the ordinance). The updated appendix is attached.
- Minor revisions were made to details contained in both the Findings of Fact (Exhibit 5-A) and the UGB Justification Report (Exhibit 5-B). For instance, Crosby Road was inaccurately referenced as an "arterial street" when it is actually a "service collector." The necessary corrections were made.

In addition, minor language changes were made to the ordinance. Also, Attachment 5-D (containing certain staff reports that are already in the record) is no longer incorporated into the ordinance. The attached copy constitutes the final form of ordinance.

Attachments:

Ordinance
Appendix C to Public Facilities Plan

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Agenda Item Review: City Administrator  City Attorney  Finance _____

COUNCIL BILL NO. 2596

ORDINANCE NO. 2391

AN ORDINANCE TO COMPLETE PERIODIC REVIEW WORK TASKS BY AMENDING THE WOODBURN COMPREHENSIVE PLAN; ADOPTING A NEW URBAN GROWTH BOUNDARY; AMENDING THE WOODBURN DEVELOPMENT ORDINANCE; REPEALING ORDINANCE 1689; ADOPTING CERTAIN BACKGROUND DOCUMENTS; MAKING LEGISLATIVE FINDINGS; AND SETTING AN EFFECTIVE DATE

WHEREAS, the City is currently in Periodic Review pursuant to ORS 197.633 and adopts this ordinance to complete certain Periodic Review Work Tasks as specified herein; and

WHEREAS, the Department of Land Conservation and Development approved the Work Program for the City on July 30, 1997; and

WHEREAS, the City adopted Resolution 1741 initiating amendments to the Woodburn Development Ordinance, the Woodburn Official Zoning Map, and the Woodburn Comprehensive Plan text and map, including functional plans ("the Periodic Review Amendment Package"); and

WHEREAS, the City coordinated with Marion County to develop a 20-year population projection, and Marion County Ordinance 1201, allocated a year 2020 population projection of 34,919 to the City; and

WHEREAS, the City used the coordinated population of 34,919 to determine its need for residential land; and

WHEREAS, the City considered and accepted the Woodburn Economic Opportunities Analysis and adopted the Woodburn Economic Development Strategy to identify target industrial firms and site suitability needs; and

WHEREAS, the City used the Year 2020 population projection and the economic development studies to prepare the Woodburn Public Facilities Plan, the Woodburn Residential Land Needs Analysis, and the Woodburn Transportation System Plan; and

WHEREAS, the City sent public notice as required by state law and the Woodburn Development Ordinance; and

WHEREAS, the City held open houses to receive public input on the Periodic Review Amendment Package; and

WHEREAS, the Woodburn Planning Commission conducted four work sessions to consider the Periodic Review Amendment Package, held a public hearing on February 3, 2005, and recommended approval of the Periodic Review Amendment Package with amendments by the City Council; and

WHEREAS, the City Council held a public hearing on March 28, 2005 on the Periodic Review Amendment Package and left the record open until April 20, 2005; and

WHEREAS, the City Council deliberated on April 25, 2005 and at its June 13, 2005 meeting, the City Council continued deliberating and allowed additional written testimony to be submitted until June 27, 2005 related to four matters; and

WHEREAS, the City Council deliberated on September 19, 2005 and tentatively approved the Periodic Review Amendment Package with amendments; and

WHEREAS, the passage of this ordinance adopting the amended Periodic Review Amendment Package will complete Periodic Review Work Tasks 1 through 4 and 7 through 11; **NOW, THEREFORE**,

THE CITY OF WOODBURN ORDAINS AS FOLLOWS:

Section 1. The Woodburn Comprehensive Plan is amended as provided in Exhibit 1, attached hereto and incorporated herein; including the following sub-exhibits:

- 1-A Woodburn Economic Development Strategy (ECONorthwest, June 2001)
- 1-B City of Woodburn Public Facilities Plan (City of Woodburn, October 2005)
- 1-C Woodburn Transportation System Plan (CH2M Hill, October 2005)
- 1-D Woodburn Local Wetlands Inventory List (Shapiro, 2000)

Section 2. A new Comprehensive Plan Map and urban growth boundary is adopted as depicted in Exhibit 2, attached hereto and incorporated herein.

Section 3. The Woodburn Development Ordinance, including the Official Woodburn Zoning Map (2005) is amended as provided in Exhibit 3, attached hereto and incorporated herein.

Section 4. Ordinance 1689, the growth management ordinance, is repealed.

Section 5. The following documents, attached hereto as Exhibit 4 and incorporated herein, are adopted as background documents to the Woodburn Comprehensive Plan:

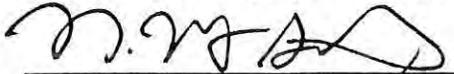
- 4-A Economic Opportunities Analysis, ECONorthwest, May 2001
- 4-B Woodburn Population and Employment Projections memorandum, ECONorthwest, April 29, 2002
- 4-C Woodburn Occupation/Wage Forecast memorandum, ECONorthwest, March 20, 2003
- 4-D City of Woodburn Local Wetlands Inventory and Riparian Assessment, Shapiro 2000.
- 4-E Technical Report 1, Buildable Lands Inventory, including Housing/Lands Needs Model M, Winterbrook Planning, July 2005 (includes Buildable Lands Map)
- 4-F Technical Report 2, Woodburn Residential Land Needs Analysis, Winterbrook Planning, May 2005
- 4-G Technical Report 3, Potential UGB Expansion Area Analysis, Natural Resources Inventory, Winterbrook Planning, November 2003 (includes Soil Capability Classes Maps)
- 4-H Site Requirements For Woodburn Target Industries (ECONorthwest, 2003)
- 4-I Citizen Involvement Report, City of Woodburn 2005 Comprehensive Plan Update, LCDC Periodic Review Work Order #0078, Work Task #10, (Woodburn Community Development Department, October 2005)

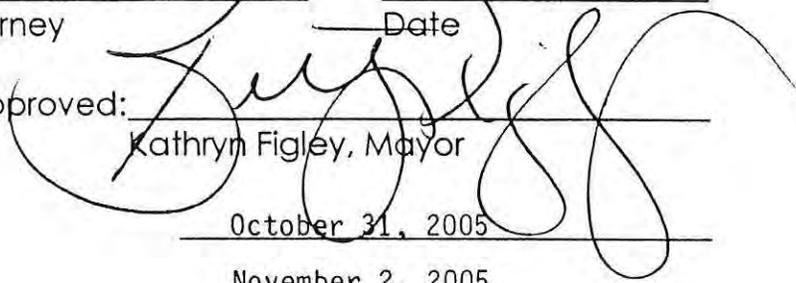
Section 6. This decision is consistent with the applicable Statewide Planning Goals based on evidence on the record as a whole and the following legislative findings, attached hereto as Exhibit 5 and incorporated herein, are made:

- 5-A Findings of Fact, demonstrating that Woodburn has completed its Periodic Review work program, and compliance with statewide Goals 1 through 8 and 11 through 13.
- 5-B Woodburn UGB Justification Report, Winterbrook Planning, October 2005, demonstrating compliance with statewide Goals 5, 7, 9, 10, 11, 12 and 14.
- 5-C Woodburn 2005 Comprehensive Plan Update, Explanation of Proposed Plan and Zoning Map Changes, Revised 2005, Woodburn Community Development Department.

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Section 7. This ordinance shall take effect on the date of an acknowledgement under the City's Periodic Review process.

Approved as to form:  10-31-2005
City Attorney Date

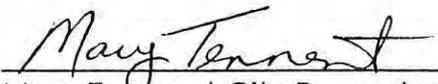
Approved: 
Kathryn Figley, Mayor

Passed by the Council October 31, 2005

Submitted to the Mayor November 2, 2005

Approved by the Mayor November 2, 2005

Filed in the Office of the Recorder November 2, 2005

ATTEST: 
Mary Tennant City Recorder
City of Woodburn, Oregon

**A COMPLETE COPY OF ALL EXHIBITS
ATTACHED TO ORDINANCE NO. 2391 ARE
AVAILABLE FOR REVIEW AT THE
FOLLOWING LOCATIONS:**

CITY RECORDER'S OFFICE

COMMUNITY DEVELOPMENT DEPT.

WOODBURN LIBRARY (REFERENCE)

Methodology for Calculations - Urban Growth Boundary Expansion

City of Woodburn – Public Works Department

April 2005

1. Public Works provided assistance to Community Development (Comm. Dev) in preparation of estimated costs for infrastructure related to proposed expansion of Urban Growth Boundary.
2. Comm. Dev determined 8 subareas for expansion. Public Works was provided mapped limits for the subareas and proposed land use designation within each of the areas.
3. Land use categories were as Residential, Commercial, and Industrial. Combinations were devised by application of formulas, without describing the location within a mapped area where any particular land use might occur.
4. Public Works was charged with estimating costs for water, storm sewer, and sanitary sewer within the boundary of each of the 8 subareas.
5. The physical size (in acres), of each land use for each subarea was calculated using CAD.
6. Master Plan criteria for water consumption, sanitary sewer flow rates and storm water runoff were used to determine values for each land use. Sizes of conveyance facilities were calculated for all areas by uniformly applying derived flow rates. Conceptual grid patterns for distribution pipes, sewer collection lines, and storm water collection lines were devised. The conceptual patterns were extrapolated and reduced to formulas for costs to serve on an acreage basis. Generally, the delivery of service to each sub area was considered to occur at one Point of Connection. This simplification did not consider market-driven development factors that would likely produce need for a greater number of connection points in the future, depending on the geographical extent and location of demand.
7. Based on CIP cost records (maintained by Engineering staff) and System Development Charges from Comm. Dev Planning staff, a cost per acre for each land use type was derived and are as follows;

Water Systems:	Residential = \$9.0K/AC	Comm./Industrial =
\$5.1K/AC		
Sanitary Sewer:	Residential = \$10.8K/AC	Comm./Industrial =
\$5.0K/AC		
Storm Sewer:	Residential = \$7.8K/AC	Comm./Industrial =
\$3.6K/AC		

8. Flow rates for these three infrastructure systems are as follows;

Water System

Residential = 1,315 gpd/AC (Avg.), 5,130 gpd/AC (Max.), 120,000 g/2hr.
Commercial/Industrial = 382 gpd/AC (Avg.), 1,490 gpd/AC (Max.), 600,000 g/2hr.

Sanitary Sewer

Residential = 1,420 gpd/AC
Commercial/Industrial = 700 gpd/AC

Storm Sewer

All areas: 0.5 cubic feet per second (cfs) per acre This empirical value was applied uniformly, regardless of projected land use, because little difference was discernable between runoff factors in conditions of a design storm.

Discharge from subareas larger than 150 acres were analyzed as Primary Drainage ways, in accordance with definitions from the Storm Drainage Master Plan (SDMP). Areas greater than 50, but less than 150 acres were described as Secondary Drainage ways. The SDMP instructs that conveyance systems for Primary Drainage ways accommodate runoff from 100-year event. Secondary Drainage ways are designed for 50-year events. The sizes of pipes were determined based upon their estimated slope and approximate design runoff for the tributary subarea.

9. The estimates considered that planning has already been made for some major infrastructure projects (mostly within the current Service Areas, and shown in a five-year plan called Capital Improvement Program, or "CIP"). Calculations were performed assuming that water, sanitary sewer, and storm drainage Capital Improvement Projects shown in the budget for fiscal year 2004-20005 were accomplished before any of these expansion projects were under taken.
10. Some infrastructure elements within the existing UGB would need upgrading to serve individual expansion subareas. Some of these improvements were not included in the CIP. Where additional improvements were necessary to existing systems situated within the existing service limits, the cost of improvements was estimated by application of historic construction cost records. These costs were added to other cost elements related to provision of service within each subarea. Included were water booster stations and sanitary sewer pump stations whose locations and sizes are shown on work maps that were prepared in course of the work.

REGION No. 1

GENERAL:

- Approximately 655 AC total areas. For evaluation purposes, this region was divided into 360 AC of Residential and 240 AC of Commercial/Industrial, 55 acres have been excluded from the total for flood plain riparian areas.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system can be looped to the adjacent existing system without requiring any additional distribution line between systems.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (2.93 MGD).
- Estimated cost of construction of distribution infrastructure is \$4.48 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- This region would be expected to require construction of a new lift station in the Northern most point at an estimated cost of \$600,000.
- The new lift station would then require a new *gravity line to Boones Ferry Road* at an estimated cost of \$400,000.
- Estimated new collections systems cost is \$5.10 million and will generate an approximate load of 1.05 cfs.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- Natural drainage appears adequate to handle outfall(s) to both fingers of Senecal Cr. to service this area, approximate 300 cfs.
- Estimated new collections systems cost is \$4.17 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

COST ESTIMATE SUMMARY:

Water Improvements	\$4,480,000
Sanitary Sewer	\$6,100,000
Storm Sewer	<u>\$4,170,000</u>
Total	\$14,750,000

REGION No. 2

GENERAL:

- Approximately 675 AC total area. For evaluation purposes this region was divided into 440 AC of Residential and 210 AC of Commercial/Industrial. 25 acres have been excluded from the total for flood plain riparian areas.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system will require extension of the existing distribution system by approximately 1300LF of 12-inch dia. main looped to the adjacent existing system at a cost of \$180,000.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (3.3 MGD).
- Estimated cost of construction of distribution infrastructure is \$5.02 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- This region would require construction of a new gravity system to connect to the existing system at the North end of Boones Ferry Rd *and/or the Mill Creek Interceptor.*
- From the Boones Ferry Rd. connection point, approximately 4000 LF of collector will have to be upsized to the Goose Cr. connection of the parallel westerly reliever at a cost of \$500,000.
- Estimated new collection systems cost is \$5.78 million and will generate an approximate load of 1.19 cfs
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- Natural drainage appears adequate to handle outfall(s) to upper Mill Cr. to service this area, approximately 325 cfs.
- Estimated new collection systems cost is \$4.17 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

COST ESTIMATE SUMMARY:

Water Improvements	\$ 5,200,000
Sanitary Sewer	\$ 6,280,000
Storm Sewer	<u>\$ 4,170,000</u>
Total	\$15,650,000

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REGION No. 3

GENERAL:

- Approximately 330 AC total area. For evaluation purposes this region was divided into 100 AC of Residential and 230 AC of Commercial/Industrial.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system will require extension of the existing distribution system by approximately 400LF of 12-inch dia. main looped to the adjacent existing system at a cost of \$60,000.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (1.6 MGD).
- Estimated cost of construction of distribution infrastructure is \$2.09 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- This region would require construction of a new gravity system to connect to the existing system at Industrial Pump Station on Industrial Way.
- From the connection point, approximately 1200 LF of collector will have to upsized to the Industrial Way Pump Station at a cost of \$265,000.
- Estimated new collections systems cost is \$2.25 million and will generate an approximate load of 0.5 cfs.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- Natural drainage is adequate to handle outfall of only a small portion to upper Mill Cr. The bulk of the region would require construction of approximately 1400 LF of 78-inch dia. pipeline Easterly to *natural tributary* to the Pudding River at a cost of \$521,000, approximately 167 cfs.
- Estimated new collections systems cost is \$1.62 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

COST ESTIMATE SUMMARY:

Water Improvements	\$ 2,150,000
Sanitary Sewer	\$ 2,515,000
Storm Sewer	<u>\$ 2,141,000</u>
Total	\$ 6,806,000

REGION No. 4

GENERAL:

- Approximately 343 AC total area. For evaluation purposes this region was determined to be all Residential and no Commercial/Industrial.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system will require extension of the existing distribution system by approximately 1100LF of 12-inch dia. main looped to the adjacent existing system at a cost of \$154,000.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (1.88 MGD).
- Estimated cost of construction of distribution infrastructure is \$3.1 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- This region would require construction of a new lift station, off Hwy. 211 then a 5000 LF of force main to the WWTP at a cost of \$1.5 million.
- Estimated new collections systems cost is \$3.70 million and will generate an approximate load of 0.75 cfs.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- Natural drainage is inadequate to handle outfall. Runoff would, therefore, require construction of approximately 2000 LF of 78-inch dia. pipeline Easterly to the Pudding River at a cost of \$745,000, approximately 170 cfs.
- Estimated new collections systems cost is \$2.68 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

COST ESTIMATE SUMMARY:

Water Improvements	\$ 3,254,000
Sanitary Sewer	\$ 5,200,000
Storm Sewer	<u>\$ 3,425,000</u>
Total	<u>\$11,879,000</u>

REGION No. 5

GENERAL:

- Approximately 431 AC total area. For evaluation purposes this region was assigned into 431 AC of Commercial/Industrial and no Residential.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system will require extension of the existing distribution system by approximately 3600LF of 12-inch dia. main looped at a cost of \$500,000.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (1.24 MGD).
- Estimated cost of construction of distribution infrastructure is \$2.20 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- This region will require construction of a new lift station in the Northwest corner of the region at an estimated cost of \$350,000.
- The new lift station would then require a new force main of approximately 4800 LF to connect to the existing gravity collection system at the Mill Cr. trunk line off of Cleveland St. at an estimated cost of \$750,000.
- Estimated new collections systems cost is \$2.16 million and will generate an approximate load of 0.50 cfs.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- Natural drainage is inadequate to handle outfall. Runoff, therefore, requires construction of approximately 4500 LF of 84-inch dia. pipeline Easterly to the Pudding River at a cost of \$2.0 million, approximately 216 cfs.
- Estimated new collections systems cost is \$1.55 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

Cost Estimate Summary:

Water Improvements	\$ 2,700,000
Sanitary Sewer	\$ 3,260,000
Storm Sewer	<u>\$ 3,150,000</u>
Total	\$ 9,110,000

REGION No. 6

GENERAL:

- Approximately 191AC total area. For evaluation purposes this region was assigned into 189 AC of Residential and no Commercial/Industrial, 2 acres have been excluded from the total for flood plain riparian areas.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system will require extension of the existing distribution system by approximately 5000LF of 12-inch dia. main looped at a cost of \$600,000.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (1.09 MGD).
- Estimated cost of construction of distribution infrastructure is \$1.7 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- This region will require construction of a new lift station along the Southerly finger of Mill Cr. and behind Shalimar trailer park at a cost of \$350,000.
- The new lift station would then require a new force main of approximately 1800 LF to connect to the existing gravity collection system at Bridlewood Ln. and Brown St. at an estimated cost of \$250,000.
- Estimated new collections systems cost is \$2.04 million and will generate an approximate load of 0.40 cfs.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- Natural drainage appears adequate to handle outfall(s) to South Mill Cr. to service this area, approximately 95 cfs.
- Estimated new collections systems cost is \$1.47 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

COST ESTIMATE SUMMARY:

Water Improvements	\$ 2,300,000
Sanitary Sewer	\$ 2,640,000
Storm Sewer	\$ 1,470,000
Total	\$ 6,410,000

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REGION No. 7

GENERAL:

- Approximately 510 AC total area. For evaluation purposes this region was divided into 380 AC of Residential and 130 AC of Commercial/Industrial.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system will require extension of the existing distribution system by approximately 6100 LF of 12-inch dia. main looped at a cost of \$700,000.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (2.87 MGD).
- Estimated cost of construction of distribution infrastructure is \$4.1 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- This region will require construction of 1000 LF of new gravity sewer line to connect to the existing system at the South end of Harvard St. at a cost of \$80,000.
- The existing gravity collection system at Harvard St. would require being upsized for approximately 3300 LF to I-5 pump station at an estimated cost of \$250,000.
- Estimated new collections systems cost is \$4.77 million and will generate an approximate load of 1.0 cfs.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- A new collection system would connect to the existing system on the West end of Parr Rd. and require upsizing the existing collector to a 84-inch dia. line at a cost of \$1.7 Million, approximately 255 cfs.
- Estimated new collections systems cost is \$3.44 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

COST ESTIMATE SUMMARY:

Water Improvements	\$ 4,790,000
Sanitary Sewer	\$ 5,100,000
Storm Sewer	<u>\$ 5,140,000</u>
Total	<u>\$15,030,000</u>

REGION No. 8

GENERAL:

- Approximately 755 AC total area. For evaluation purposes this region was divided into 457 AC of Residential and 298 AC of Commercial/Industrial.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system can be looped to the adjacent existing system without requiring any additional distribution line between systems.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (3.5 MGD).
- Estimated cost of construction of distribution infrastructure is \$5.62 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- A new collection system would connect to the existing system on the West end of S. Woodland Ave. flowing to I-5 pump station.
- Existing collector would require upsizing to a 24-inch dia. line at a cost of \$250,00.
- Estimated new collections systems cost is \$6.42 million and will generate an approximate load of 1.32 cfs.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- Natural drainage appears adequate to handle outfall(s) to both fingers of Senecal Cr. to service this area. Approximately 375 cfs.
- Estimated new collections systems cost is \$4.63 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

COST ESTIMATE SUMMARY:

Water Improvements	\$5,620,000
Sanitary Sewer	\$6,670,000
Storm Sewer	\$4,630,000
Total	\$16,920,000

S.A.P.
 EVALUATION OF WATER REQUIREMENTS FOR UGB INCREASE

PROP ZONE	RES AC	COMM/IND ACREAGE	RESIDENTAL		COMMERCIAL/INDUSTRIAL		TOTAL RES FIRE FLOW (2 HRS)	TOTAL COM/IND FIRE FLOW (2 HRS)	TOTAL MDD W/FF
			AVERAGE DD 1315.4GPD/AC	MAXIMUM DD 5130.2gpd/AC	AVERAGE DD 381.9gpd/AC	MAXIMUM DD 1489.4gpd/AC			
1	362	239	476,175	1,857,132	92,995	355,967	1,977,132	955,967	2,933,099
2	436	214	573,514	2,236,767	83,267	318,732	2,356,767	918,732	3,275,499
3	100	234	131,540	513,020	91,049	348,520	633,020	948,520	1,581,540
4	343	0	451,182	1,759,659	0	0	1,879,659	0	1,879,659
5	0	431	0	0	167,702	641,931	0	1,241,931	1,241,931
6	189	0	248,611	969,608	0	0	1,089,608	0	1,089,608
7	382	128	502,483	1,959,736	49,805	190,643	2,079,736	790,643	2,870,380
8	457	296	601,138	2,344,501	115,174	440,862	2,464,501	1,040,862	3,505,364
SUB-TOTAL	2,269	1,542	2,984,643	11,640,424	599,992	2,296,655	12,480,424	5,896,655	18,377,079

NOTE: Phase III of WTP build out will have producible product of 10.8 MGD and 6.1 MG storage.

STORM DRAIN COST ANALYSIS OF EXTENDED BOUNDARIES BY REGION

PROP ZONE	RES AC	COMM/IND ACREAGE	RESIDENTAL SD COST PER AC	COM/IND SD COST PER AC	TOTAL RESIDENTAL COST	TOTAL COM/IND COST	TOTAL	Q (cfs) BASED ON 0.5 CFS/AC
1	362	239	\$7,800.00	\$3,600.00	\$2,823,600.00	\$860,400.00	\$3,684,000.00	300.5
2	436	214	\$7,800.00	\$3,600.00	\$3,400,800.00	\$770,400.00	\$4,171,200.00	325
3	100	234	\$7,800.00	\$3,600.00	\$780,000.00	\$842,400.00	\$1,622,400.00	167
4	343	0	\$7,800.00	\$3,600.00	\$2,675,400.00	\$0.00	\$2,675,400.00	171.5
5	0	431	\$7,800.00	\$3,600.00	\$0.00	\$1,551,600.00	\$1,551,600.00	215.5
6	189	0	\$7,800.00	\$3,600.00	\$1,474,200.00	\$0.00	\$1,474,200.00	94.5
7	382	128	\$7,800.00	\$3,600.00	\$2,979,600.00	\$460,800.00	\$3,440,400.00	255
8	457	296	\$7,800.00	\$3,600.00	\$3,564,600.00	\$1,065,600.00	\$4,630,200.00	376.5
SUB-TOTAL	2,269	1,542			\$17,698,200.00	\$5,551,200.00	\$23,249,400.00	

NOTE: Cost per acre are based upon SDC Receipt history.

SANITARY SEWER COST ANALYSIS OF EXTENDED BOUNDARIES BY REGION

PROP ZONE	RES AC	COMM/IND ACREAGE	RESIDENTAL SD COST PER AC	COM/IND SD COST PER AC	TOTAL RESIDENTAL COST	TOTAL COM/IND COST	TOTAL
1	362	239	\$10,800.00	\$5,000.00	\$3,909,600.00	\$1,195,000.00	\$5,104,600.00
2	436	214	\$10,800.00	\$5,000.00	\$4,708,800.00	\$1,070,000.00	\$5,778,800.00
3	100	234	\$10,800.00	\$5,000.00	\$1,080,000.00	\$1,170,000.00	\$2,250,000.00
4	343	0	\$10,800.00	\$5,000.00	\$3,704,400.00	\$0.00	\$3,704,400.00
5	0	431	\$10,800.00	\$5,000.00	\$0.00	\$2,155,000.00	\$2,155,000.00
6	189	0	\$10,800.00	\$5,000.00	\$2,041,200.00	\$0.00	\$2,041,200.00
7	382	128	\$10,800.00	\$5,000.00	\$4,125,600.00	\$640,000.00	\$4,765,600.00
8	457	296	\$10,800.00	\$5,000.00	\$4,935,600.00	\$1,480,000.00	\$6,415,600.00
SUB-TOTAL	2,269	1,542			\$24,505,200.00	\$7,710,000.00	\$32,215,200.00

NOTE: Cost per acre are based upon SDC Receipt history.

SANITARY SEWER FLOW RATES BY REGION

PROP ZONE	RES AC	COMM/IND ACREAGE	RESIDENTIAL	COM/IND	TOTAL FLOW TO POC PER DAY	CFS
			FLOW Rate 1420 GPD/AC	FLOW Rate 700 GPD/AC		
1	362	239	514,040	167,300	681,340	1.05
2	436	214	619,120	149,800	768,920	1.19
3	100	234	142,000	163,800	305,800	0.47
4	343	0	487,060	0	487,060	0.75
5	0	431	0	301,700	301,700	0.47
6	189	0	268,380	0	268,380	0.42
7	382	128	542,440	89,600	632,040	0.98
8	457	296	648,940	207,200	856,140	1.32
SUB-TOTAL	2,269	1,542	3,221,980	1,079,400	4,301,380	6.66

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WATER SUPPLY COST ANALYSIS OF EXTENDED BOUNDARIES BY REGION

PROP ZONE	RES AC	COMM/IND ACREAGE	RESIDENTAL SD COST PER AC	COM/IND SD COST PER AC	TOTAL RESIDENTAL COST	TOTAL COM/IND COST	TOTAL
1	382	239	\$9,000.00	\$5,100.00	\$3,258,000.00	\$1,218,900.00	\$4,476,900.00
2	436	214	\$9,000.00	\$5,100.00	\$3,924,000.00	\$1,091,400.00	\$5,015,400.00
3	100	234	\$9,000.00	\$5,100.00	\$900,000.00	\$1,193,400.00	\$2,093,400.00
4	343	0	\$9,000.00	\$5,100.00	\$3,087,000.00	\$0.00	\$3,087,000.00
5	0	431	\$9,000.00	\$5,100.00	\$0.00	\$2,198,100.00	\$2,198,100.00
6	189	0	\$9,000.00	\$5,100.00	\$1,701,000.00	\$0.00	\$1,701,000.00
7	382	128	\$9,000.00	\$5,100.00	\$3,438,000.00	\$652,800.00	\$4,090,800.00
8	457	296	\$9,000.00	\$5,100.00	\$4,113,000.00	\$1,509,600.00	\$5,622,600.00
SUB-TOTAL	2,269	1,542			\$20,421,000.00	\$7,864,200.00	\$28,285,200.00

NOTE: Cost per acre are based upon SDC Receipt history.

EXHIBIT 1

EXHIBIT 1

2005 WOODBURN COMPREHENSIVE PLAN

CITY OF WOODBURN

COMPREHENSIVE PLAN

Volume I Goals and Policies (2005 Amendment Package)

Prepared by:
The City of Woodburn Planning Department
with Assistance from Winterbrook Planning

Originally Adopted on December 1978

Amended:
March 1981, February 1989, March 1996, April 1997 (Transportation Goals Policy),
August 1997 (Downtown Design Conservation District), October 1999 (Annexation and
Parks Goals and Policies), July 2003

October 2005 Amendments

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Introduction

How to Use This Plan

The Woodburn Comprehensive Plan is the controlling land use document for the City and its Urban Growth Boundary (UGB). From a land use perspective, the comprehensive plan is like a state or federal constitution: it provides the legal framework and long-term vision for implementing plans and land use regulations. The Woodburn Comprehensive Plan has been found by the Land Conservation & Development Commission (LCDC) to comply with the 14 applicable “Statewide Planning Goals,” which are, in effect, state planning requirements that must be met by each city and county in Oregon.

The Woodburn Comprehensive Plan includes two volumes. Volume I includes goals and policies that provide specific direction in making “quasi-judicial” land use decisions; i.e., decisions that require judgment in the application of general policies to specific situations, such as zone changes, annexations, conditional use permits and major variances. Goals set a general direction and are not intended to be decision criteria. Policies that are written in mandatory language (e.g., “shall,” “must,” “will”) are mandatory in character: they must be followed when Woodburn makes a “quasi-judicial” land use decision. In cases where mandatory policies conflict, the City Council may balance these policies in making a decision. Policies that are written in permissive language (e.g., “should,” “may,” “encourage”) indicate the preferred direction of the City, but are not binding on the Council.

Volume I also includes the comprehensive plan map, which indicates on a parcel-specific basis, what land uses will be allowed in the long-term. Where Volume I plan policies conflict with the comprehensive plan map, the specific text of these policies shall control.

Legislative land use decisions (e.g., changes in the text of Volume I or to the comprehensive plan map that apply generally to the City, and not to a specific property or small group of properties) adopted by the City Council must also conform with Volume I goals, policies and maps; or affected goals, policies and maps must be amended by the City Council to be consistent with the Statewide Planning Goals.

Volume II of the Woodburn Comprehensive Plan includes background information that served as the basis for Volume I goals and policies. For example, the basis for Woodburn’s population and employment projections, the land needs analysis, maps of environmentally-significant stream corridors and the justification for the Woodburn UGB are included in Volume II. Thus, Volume II forms a part the “legislative history” that supports the goals, policies and plan map.

Planning History

This Plan first was developed during the period from December 1976 through March 1981. It was revised through the Periodic Review process in 1988-1989 and was amended again in 1996. It is intended to guide the development and redevelopment of Woodburn for the next 20 years – until approximately the Year 2020. Hopefully, through following the Plan the City will maintain and enhance the present quality of life enjoyed by the people who call Woodburn their home. The Plan is also intended to comply with the requirements of state law, the Land Conservation and Development Commission Goals and Administrative Rules. The Plan has been coordinated with the Goals and Guidelines expressed in the Marion County Growth Management Framework Plan, adopted in 2003. Volume II of the Plan is also intended as an informational and data source to persons unfamiliar with Woodburn or who wish to find out more about the City, and to act as an educational document for City Council members, Planning Commission members, staff and other interested parties.

The plan was extensively amended during the Periodic Review process, which extended from 1992 through 2005, and culminated in the Woodburn 2020 Comprehensive Plan. The primary focus of the periodic review process was economic development and the Council's determination to provide a sufficient industrial land base to provide for family-wage jobs and a sound fiscal basis for the community. As part of this process, the City undertook an Economic Opportunities Analysis, which identified Woodburn's comparative advantages, targeted industries that would likely be attracted to the Woodburn area, and recommended expansion of the UGB to provide suitable industrial sites near Interstate 5 to meet the needs of targeted industrial firms.

Other important objectives of the 2005 amendment package include:

- Completion of the City's Periodic Review process;
- Coordination with Marion County's Framework Plan;
- Providing adequate transportation connections;
- Providing adequate buildable lands for a range of housing types and densities;
- Increasing land use efficiency within the UGB to minimize impacts on agricultural land; and
- Protecting Woodburn's stream corridors and wetlands.

Natural Setting

Woodburn is a town of approximately 20,000 persons located midway between Portland and Salem in Oregon's Willamette Valley. Woodburn is 17 miles north of Salem and 30 miles south of Portland. Its location is central with respect to transportation corridors running north and south in the Mid Willamette Valley. Interstate 5, the major north-south freeway through Oregon, runs through Woodburn's City limits on the west side of the City. Highway 99E, a secondary major north-south transportation route, runs through the east end of Woodburn.

State Highway 214, a primary state road, runs east and west bisecting the city. In addition, there are two railroad tracks that run either through, or in close proximity to Woodburn; Southern Pacific Railroad, which runs through the center of town and around which Woodburn was originally built, and the Burlington Northern Railroad, which runs north and south just west of the present City limits. Due to the location of these major transportation routes, Woodburn has been an extremely good location with respect to commerce.

The physical setting of the City is on an extremely flat area of the Willamette Valley. The highest point in Woodburn is approximately 187 feet above sea level, located in west Woodburn. The lowest point in the present City limits is approximately 148 feet above sea level, located on the point where Mill Creek leaves the City limits. While this gives a relief in the City of 40 feet, most of the area is still extremely flat; averaging about 177 to 182 feet above sea level. This flat plain is divided by two drainage systems; Mill Creek which runs through the center of town, and Senecal Creek which runs through the western city limits. Other than the two streams there are no physical formations of any significance in Woodburn.

The climate of Woodburn is typified by mild, wet winters and warm, dry summers. The daily maximum and minimum mean temperature is 45° F and 32° F in January and 82° F and 51° F in July. Precipitation varies from an average of 6.9 inches in January to .03 inches in July. Another indication of the marked difference in precipitation rates between seasons is the number of days with a cloud cover. January averages 24 cloudy and 4 partly cloudy days as compared to 7 cloudy days and 9 partly cloudy days for the month of July. Winds are generally from the south for 10 months of the year, except for July and August when northerly winds are the rule. Wind velocities range between 6.2 and 8.7 miles per hour.

The soils that have developed in this climate are of two associations, Amity silt loam and Woodburn silt loam. Both of these formations are found throughout the City in all areas except drainage channels. These soils are capability unit Class 11 established by the Soil Conservation Service. The drainage channels contain several different types of associations, most commonly Bashaw clay, Dayton silt loam and Concord silt loam. These soils are extremely wet and boggy and are generally Class III and Class IV soils.

Because of the flatness of the terrain around Woodburn and also because of the basically stable physical environment, there are very few limiting factors relating to urban development. The only two of any significance are floodplain areas, which occur around Mill Creek and Senecal Creek, and unstable soils. For the most part these unstable soils occur in the floodplain areas. They are mostly of the clay type soils, which occur in the low drainage areas and are insufficient to provide foundations for normal structures.

Woodburn's Historical Context

Prior to human settlement, the site upon which Woodburn is located would have appeared quite different from today. Several areas, most notably the Senior Estates area, would have been swampy, boggy lands typified by water tolerant species and created a bountiful habitat for water fowl and other species associated with marshes. The main break to this landscape would have been the stream channels areas of Senecal Creek and Mill Creek. This area was generally an active floodplain and was seasonally flooded. The channels at that time were probably very ill-defined, very similar to Senecal Creek today. Vegetation would have been dense. Typically there was a thick, shrubby growth in the floodplain areas dominated by water tolerant deciduous trees and an occasional fir tree. However, the composition of vegetation quickly changed as soon as a rise in elevation would allow drainage of the soggy soil. On the slopes of the stream channels and extending out into the flat areas, one would have found thick growth of firs and oaks, occasionally broken by large grassy plains with scattered oak trees. This change is evident today in the undeveloped areas of Senecal Creek, which flows through west Woodburn.

Native Americans set annual fires to increase the supply of foods, which they gathered from the grassland habitat, and in so doing increased the area of open grasslands. When Europeans arrived in the Willamette Valley in 1805 to 1830, they encountered numerous small bands of Native Americans, which collectively became known as the Calapooians. This Native American tribe inhabited the French Prairie region. There are no known villages or campsites along the Pudding River drainage in the Woodburn area. Because this area was one of the first settled by Europeans in Oregon, the early contact with Euro-Americans may have driven the Native Americans to other locations. Woodburn provided habitat for wildlife and was likely the site of Native American settlements. Treaties signed in 1854 and 1855 officially terminated the Native American occupation of the Willamette Valley. The surviving Calapooians were ordered into the Grand Ronde Reservation west of the Coast Mountains.

The earliest settlers in the Willamette Valley were mostly confined to the region known as French Prairie, a portion of the northern valley comprising 200 square miles on the east side of the Willamette River. Champoeg became the seat for Oregon's provisional government in 1843. The area soon became crowded and growth diffused up the Willamette River. Woodburn, in the southern reaches of the French Prairie, was one of the recipients of early settlers from the northern valley and the fertile adjacent soils allowed it to become known as the trade center of the region. Under the influence of industrial development in the form of steamboat and later the railroads, Woodburn realized growth and prosperity that was not true of many of the earliest settlements in the Valley which were bypassed by these new developments in technology.

The founding of Woodburn is said to have been due to the efforts of Jesse Setlemier, who purchased the portion of land where the town is now presently

located. The land was purchased during a foreclosure sale of land that had originally been part of the Jean Dubois homestead in the 1840's. Settlemier apparently saw promise for Woodburn. After founding a nursery in 1863 he focused his energy and resources to attract people and commerce to the area. Then the social and promising economic center of the east French Prairie was Belle Passe, located some 2½ miles from Woodburn. Woodburn eventually absorbed the attention previously paid to Belle Passe, and it was thought that Woodburn was coming into a position to capitalize on trade and shipping activities because of its proximity to fast growing Portland and Salem. This, in conjunction with its agricultural and commercial potential, gave it a key position for subsequent growth and development.

Although Jesse Settlemier was instrumental in designing the physical town site, many claim its real founder was Ben Holladay. If Holladay did not actually found the town site, he at least gave it a major stimulus for growth through his building of the railroad. In 1871 his Oregon and California Railroad established a line through Woodburn. Some ten years later a narrow gauge railroad also made its appearance in Woodburn. 1871 also saw the first platting of the town site of Woodburn on the eastern boundary the Oregon and California Railroad established by Ben Holladay.

Jesse Settlemier's efforts to encourage growth continued during this period. A strong agricultural base, railroad and geographic centrality were its strongest features. In addition, Settlemier was at this time successful in subsidizing the railroad to construct a flag station at Woodburn, giving the town major status. Local sentiment has it that by 1880 Woodburn was on the way to becoming the most prominent city in the Willamette Valley (according to the Woodburn Independent). By 1889 Woodburn was incorporated as a City with a home rule charter. Its first mayor was Jesse Settlemier. A school had already been established in 1885 and in its first year was attended by 65 students. Also in 1888, the Woodburn Independent, the town newspaper, was established.

During the 1890's, Woodburn was realizing some of the commercial and industrial growth which it had boasted it could achieve. A flour mill, planing mills, lumber yards and a marble works were developed.

During the 1890's and the early 1900's Woodburn hoped to attract other industries and commercial enterprises. Woodburn advertised that its desirable features were less expensive land and fewer labor problems than other areas. It was noted, for example, that Woodburn did not suffer from Portland's rise in land prices as well as its racial clashes between laborers. By 1900 Woodburn had 46 businesses, including 3 hotels, a telephone system, a cannery, a grain works, 10 nurseries, 3 lumber yards and other assorted enterprises such as banks and retail outlets. It also possessed several churches and distinctive social groups.

In the early 1900's Woodburn was introduced to the electric railroad or interurbans, as they were called. This particular line was known as the Oregon Electric. The main line originally bypassed Woodburn by some two miles to the west. Its owner favored west Woodburn for their terminus. By 1910, however, a spur was connected to Woodburn. Oddly enough, a town served by two railroads and having sufficient economy to sustain population in commerce was brought partially to its knees by another form of technology; the automobile. While the town continued to grow and attract some industry, once highway traffic developed it did so at a much slower rate. Woodburn's growth began to slow as it gave way to a changing economy.

Between 1910 and 1940 Woodburn grew in its population by only some 40 persons. Industry, however, continued to expand in the form of a loganberry juice factory and a cannery. In 1925 came the construction of the Woodburn training school for boys, now MacLaren Youth Correctional Facility. In 1929 the Portland Gas and Coke Company installed service facilities. In subsequent years, Bonneville Power provided electricity to both residents and industry. In 1944 the Birds Eye Division of General Foods built a large cannery facility in Woodburn, attracted by the agricultural productivity of the area. Woodburn promoters at this time maintained that the City still had all the machinery for economic success. It was said by local developers to be a sleeping giant.

While the automobile had retarded its growth as a regional shipping center, the same technology brought suburbia ever closer to the City so that a different type of growth began to occur in Woodburn. During the 1960's Woodburn underwent some interesting demographic changes. In the decade from 1960 to 1970 there were three separate migrations into Woodburn. The first was the immigration of retired people into the Woodburn area mostly through the Senior Estates development. This development, which was conceived in the 1950's and first platted in 1960, continued its development until 1980 when the last lots in Senior Estates were platted. This brought approximately 2,500 retired persons into the Woodburn area. The same period also saw immigration of Mexican-Americans, initially attracted by the agricultural labor in the area and then settling down to become residents, and Old Believer Russians.

Woodburn's growth from 1970-2000 exceeded that of the State, the Willamette Valley, and other selected locations in the immediate area. Historically, Woodburn has been able to support its population with a full range of City services and has maintained its identity as a community in the area. It is Woodburn's desire to remain as a redistribution center for outlying areas of the Valley. Public polls taken in Woodburn have confirmed this goal. Expansion of the City in an orderly and efficient manner will aid in giving the population the commerce and industry it has always historically desired.

A. Comprehensive Plan Designations and Implementation

The Land Use Plan

The Comprehensive Plan is based on the recent land use inventories, updated land needs analyses, and the revised goals and policies in this Comprehensive Plan. The Comprehensive Plan represents the most practical arrangement of land uses, considering existing development patterns and the future vision for Woodburn, as embodied in the revised goals and policies.

Comprehensive Plan Designations

Woodburn has six principal comprehensive plan map designations, and two overlay designations, with corresponding zoning districts:

Policy Table 1: Comprehensive Plan Designations and Implementing Zoning Districts

Comprehensive Plan Designation	Implementing Zoning District(s)	Density Range (Units Per Net Buildable Acre)	Minimum Lot Sizes or Unit Area in Square Feet
Low Density Residential	RS Single Family Residential	5.2-7.26	6,000 Interior Lot 8,000 Corner Lot 10,000 Duplex Lot
	RIS Retirement Community SFR	Not Applicable	3,600 Interior Lot 3,600 Corner Lot
Nodal Development Overlay	RSN Nodal Development SFR	7.9-10.89	4,000 Interior Lot 4,500 Corner Lot
Medium Density Residential	RM Medium Density Residential	10-16	2,720 Per M-F Unit 10,000 Duplex Lot 1,980 Per M-F Unit
Nodal Development Overlay (NDO)	RMN Nodal Residential	10-22	8,000 Duplex Lot 3,000 Interior Rowhouse 3,600 Corner Rowhouse
Commercial	CG General Commercial	Not applicable	
	DDC Downtown Development and Conservation		
Nodal Development Overlay (NDO)	CO Commercial Office		
	NCN Nodal Neighborhood Commercial		
Industrial	IP Industrial Park	Not applicable	
	LI Light Industrial		
Southwest Industrial Reserve Overlay (SWIR)	SWIR Southwest Industrial Reserve		
Open Space and Parks	RCWOD Riparian Corridor and Wetlands Overlay District	Not applicable	
	P/SP Public Semi-Public		
Public Use	P/SP Public Semi-Public	Not applicable	

Note: The net buildable area of a parcel excludes land dedicated for public rights-of-way or stormwater easements, common open space, and unbuildable natural areas. For example, if a parcel has 10 acres, and 2 acres are removed for streets and 2 acres are within the floodplain / riparian area, then 6 net buildable acres would remain. The range of allowable densities is calculated based on net buildable acres. An acre has 43,560 square feet. Allowable densities may be increased through the discretionary planned unit development review process.

Plan Implementation

Any comprehensive plan depends on implementation to accomplish the goals and policies established in the plan. Cities have amassed a battery of ordinances to accomplish this purpose. Some ordinances have been more successful than others and in time, no doubt, new methods and techniques will be developed. Implementation should be a continual review of existing ordinances to ensure that they are accomplishing the purposes for which they were originally designed. The City recognizes that over time many of the ordinances which are suggested in this plan will be amended and perhaps entirely replaced by new concepts. As long as the ordinance which is developed implements the goals and policies of the plan, a change should not be necessary. However, at a minimum, the City should have basically the following ordinances to implement the plan.

Zoning

The keystone of plan implementation is the Woodburn Development Ordinance (WDO). This WDO ensures that the location and design of various land uses and in some cases, the timing of those land uses, is in compliance with the Comprehensive Plan. The WDO ensures that incompatible uses do not occur, while allowing flexibility consistent with the purpose of the plan. The Zoning Map will be more specific than the Comprehensive Plan Map, and may have more designations than the Comprehensive Plan Map. In addition, there will be many cases where the zoning ordinance will be more restrictive than the map. This is because there are areas which must be retained in a more restrictive zone until public facilities are developed or public need is established for a zone change to a less restrictive zone. However, in no case should the Zoning Map allow a use which is less restrictive than that called for in the Comprehensive Plan.

Subdivision and Planned Unit Development Ordinances

The second mainstay of plan implementation are partition, subdivision, and planned unit development ordinances, which are also found in the WDO. These ordinances are designed to regulate the division of large parcels of land into smaller lots or parcels, mostly for residential developments. They are the main control the City has over neighborhood development, rights-of-way acquisition, and minimum lot sizes. The City should carefully review partition, subdivision, and PUD ordinances to ensure that they are consistent with present trends of the housing market and do not require more land than is reasonably required for public use. However, conversely, these ordinances should be designed to ensure that neighborhoods are well served by streets, parks, and in some cases, school sites.

Site Plan Review

Site Plan Review has been established for Multi-Family (3+ Units), Industrial and Commercial land uses. The objective of Site Plan Review

is to ensure that proper and adequate facilities and infrastructure are provided. Site Plan Review is a way of creating uniformity in development, limiting conflicts in design, and bringing about the overall attractiveness of the community.

Sign Ordinance

The City has had a sign ordinance since 1973. It has been successful in controlling proliferation of signs, mostly along main arterials. The sign ordinance was revised in 2004. The Sign Ordinance implements goals relating to public health, safety and welfare, basically for transportation safety and aesthetic goals. This type of ordinance should be continued.

Transportation Plan

The Transportation System Plan (TSP) (2005) was revised to reflect changes in population, employment and land use adopted in the Woodburn Comprehensive Plan (2005). The 2005 TSP includes goals and objectives, forecasts traffic growth in the City, and identifies transportation improvements needed to satisfy the forecasted growth. The plan:

- Establishes the functional classification of roads and streets
- Establishes street standard for each functional classification
- Evaluates interchange alternatives
- Establishes alternative modes of transportation
- Meets the Oregon Transportation Planning Rule

Capital Improvement Plans

The City is striving toward its goal of orderly growth through adoption of a six year Capital Improvement Plan (CIP), which is the City's financial commitment to construct needed public facilities projects. Related to capital improvement plans for public facilities are system development charges which implement the City's goal of charging new development for the additional services that it requires. The Capital Improvements Plan can be utilized as an information tool to assist in the annual budgeting process and guide the expansion and maintenance of the City's streets, water, sewer, storm drains, etc.

The CIP has both short-term and long-term projects. Short-term projects are those planned for construction within six years. These projects indicate detailed descriptions of the location of the projects; the work required; a time line for construction, and an estimate of the cost with a breakdown of various funding sources.

Long-term projects are those intended to meet the needs of the City through the full twenty year planning period. Recently revised population projections and 2002 land inventories have revealed hundreds of available undeveloped acres within the UGB that will require public service line

extensions in the future. Long-term projects contained in the CIP are generally projects that extend main public facility lines in of the undeveloped Urban Growth Boundary. All of the long-term projects in the CIP have been shown to be necessary to maximize the future development potential for the entire urbanizing area.

The CIP is designed so that both short-term projects and long-term projects are subject to annual review. This way, the City can add, delete, and reprioritize projects as needs change.

Downtown and Urban Renewal

One of the main problems with land use and economy in the City has been the stagnated downtown area. In response, the City adopted a downtown development plan and on Urban Renewal Agency and Plan. The Urban Renewal Plan is a primary vehicle for revitalizing the Downtown area, including goals and policies addressing financial assistance programs, citizen involvement, and physical improvements. The downtown Development Plan was adopted as an element of the Comprehensive Plan.

Housing Codes

As many of the structures in the City grow older, run down, and deteriorated they can begin to detract and blight a neighborhood. One means of ensuring that the housing stock is kept in good shape, is through city-sponsored housing rehabilitation program.

Housing rehabilitation programs offer low interest, deferred loans to low/moderate income homeowners for repair maintenance, and rehabilitation of housing within certain target areas. Areas identified as having the highest percentage of homes in need of basic repair, roofs, foundations, paint, sidewalks, etc., may be targeted for rehabilitation. The City is considering implementation of a housing rehabilitation program.

Flood Hazard Zone

The only identified natural hazard in Woodburn is the 100-year flood plain area. As this area contains the most unstable soils for development, the City requires flood hazard area regulations to ensure that building does not occur. The City has already adopted a Flood Plain Management Ordinance, which meets the requirements of the Federal Flood Insurance Program. This ordinance should be monitored for its effectiveness and kept up to date.

Historical Site Zone

As historical sites often require special attention and special regulation, the City has adopted policies to recognize historical sites and to encourage preservation and protection.

Review, Revision and Update

The planning process is continuous. There is no plan that can foresee all of the problems the future will bring. In most cases for decision, the Planning Commission and Council will be petitioned by private citizens to change the Comprehensive Plan designation of a particular parcel of property. This is a quasi judicial activity and should follow the procedures set out for quasi judicial rulings. The Planning Commission should ensure that any change it makes in the Comprehensive Plan is consistent with other goals and policies established in this Plan. These changes, in general, should be justified by a solid body of evidence presented by the petitioner showing the following:

1. Compliance with the goals and policies of the Comprehensive Plan;
2. Compliance with the various elements of the Comprehensive Plan;
3. Compliance with Statewide Goals and guidelines;
4. That there is a public need for the change;
5. That this land best suites that public need; and

Enforcement Policy

Policy

- A-1. Land use ordinances adopted by the City shall be strictly enforced. While the Comprehensive Plan and zoning ordinances are important phases of the land use planning process, without strict enforcement of the code, what actually occurs in the City will not have a direct relationship to the plans and ordinances adopted by the Council. Therefore, strict enforcement must be practiced by the City to ensure that the policies of the City are actually being implemented.

B. Citizen Involvement and Agency Coordination

The success of the Woodburn Plan is directly related to establishing a method of receiving citizen input. While complex organizations, such as are required in larger cities, are not necessary in a City the size of Woodburn, clear lines of communication should be maintained between the Boards, Commissions, Council and staff of the City and the general public. It is essential that a two-way flow of communication be maintained for proper City government to occur, especially in land use matters.

Citizen and Agency Involvement Policies

- B-1. It is the policy of the City of Woodburn to solicit and encourage citizen input at all phases of the land use planning process. Since the City is trying to plan the community in accordance with the community's benefit, it is essential that the community be consulted at all stages of the planning process.
- B-2. Woodburn shall coordinate with affected state agencies regarding proposed comprehensive plan and land use regulation amendments, as required by state law.
- (a) The state agency most interested in land use is the Oregon Department of Land Conservation and Development (DLCD). Woodburn shall notify DLCD 45 days in advance of the first hearing before the Planning Commission of proposed comprehensive plan or development ordinance amendments.
 - (b) The state agencies most interested in environmental issues are the Oregon Division of State Lands (DSL), the Oregon Department of Fish and Wildlife (ODFW), the Oregon Department of Environmental Quality (DEQ) and DLCD. These agencies shall be notified on changes to City policies and standards regarding Goal 5 (Natural Resources) and Goal 6 (Air, Land and Water Quality) issues.
 - (c) The state agencies most interested in natural hazards are DLCD (which administers Federal Emergency Management Act flood control programs) and the Oregon Department of Aggregate and Mineral Industries (DOGAMI). These agencies shall be notified regarding changes to flood management programs.
 - (d) The state agencies most interested in parks and recreational facilities and historic preservation are the Oregon Parks Department and the State Office of Historic Preservation. These agencies shall be notified and asked to comment when changes to park or historic programs are proposed.
 - (e) The state agencies most interested in transportation programs and projects are the Oregon Department of Transportation (ODOT) and DLCD. These agencies will be notified when amendments to the Transportation Systems Plan, comprehensive plan or zone designation are proposed that could adversely affect a state transportation facility.

C. Marion County Coordination

In 2003, Marion County adopted the "Urban Growth Management Framework" as part of its comprehensive plan. The Framework states its purpose on pages 2-3:

"The purpose of the Growth Management Framework is to:

- 1. Identify common goals, principles, and tools that will lead to more coordinated planning and promote a collaborative approach to developing solutions to growth issues.*
- 2. Be consistent with City plans for growth by modifying the growth projections in response to City feedback.*
- 3. Protect farm, forest, and resource lands throughout the County by considering the existing growth capacity of each community, fostering the efficient use of land, and evaluating urban growth boundary expansion needs.*
- 4. Maintain physical separation of communities by limiting urbanization of farm and forest lands between cities.*
- 5. Maintain community identity by encouraging each community to decide how it should grow and by promoting City decision-making control.*
- 6. Support a balance of jobs and housing opportunities for communities and areas throughout the county that contribute to the needs of regional and City economies.*
- 7. Provide transportation corridors and options that connect and improve accessibility and mobility for residents along with the movement of goods and services throughout the county.*

The Urban Growth Management Framework is a coordination planning strategy that provides a guide cities may follow when considering urban expansion needs and decisions in response to growth issues. The Framework identifies the areas of interest for the County regarding urbanization and possible measures in the form of coordination guidelines, that cities may choose to pursue to accommodate efficient growth. Within the context of the Framework, coordination guidelines are defined as being 'flexible directions or measures that may be utilized to address specific policy statements.'

The Framework is intended to provide direction and assistance for the cities through a checklist of factors for consideration in making decisions regarding the impacts of growth. The decision as to how to use the Framework and which guidelines may be important and applicable, is up to the cities. The County recognizes there may be several ways to approach and resolve an issue and the Framework provides flexibility for the cities in coordinating planning efforts with the County."

Marion County Coordination Goals and Policies

Goal

- C-1. To coordinate with Marion County regarding planning issues that extend beyond the boundaries of the City of Woodburn, including population allocations, amendments to acknowledged comprehensive plans and transportation system plans, and achievement of a compact urban growth form, as required by Statewide Planning Goals 2 (Land Use Planning and Coordination), 12 (Transportation) and 14 (Urbanization).**

Policies

- C-1.1 Marion County Framework Plan goals, policies and guidelines will be considered when the City considers plan amendments that require Marion County concurrence.
- C-1.2 The City of Woodburn shall have primary responsibility to plan for community growth within its Urban Growth Boundary, and recognizes its responsibility to coordinate with Marion County to ensure the efficient use of urbanizable land within the Woodburn Urban Growth Boundary.

D. Residential Land Development and Housing

The 2003 Woodburn Housing Needs Analysis forecasted future housing need by type and density. The City is committed to maintaining a 20-year supply of buildable land to meet identified housing needs.

Residential Plan Designations

Medium Density Residential Lands

Most Medium Density Residential areas are located adjacent to an arterial or collector street or at the intersection of major streets. Care should be taken in developing these areas to ensure that good transportation flow is accommodated and that on-site recreational uses are provided to some extent to alleviate some of the problems caused by living in medium

density areas. Medium Density Residential lands are also appropriate in designated Nodal Development areas and near employment centers.

Low Density Residential Lands

Low density residential areas are the most sensitive land use and must be intensively protected. In general they are not compatible with commercial and industrial uses and some type of buffering technique must be used to protect them. Also, arterials and other transportation corridors can severely affect the usefulness of low density residential areas. In general, low density residential areas have been located according to existing patterns of development and in areas which are protected from high traffic flows and commercial and industrial uses. When greenways are used as buffers between other land uses and low density residential areas it is extremely important to maintain the visual and physical separation that the greenway provides. Small lot single-family residential development is appropriate in Nodal Development areas and may be allowed in Medium Density Residential areas. Small lot senior housing is encouraged adjacent to existing senior housing areas.

Public Use

In addition to the four major types of land uses (medium density residential low density residential, commercial, and industrial), lands for public use are shown. These are lands, which are used or intended for use by governmental units, including lands which are currently owned by the City or School District. Future acquisition sites are not indicated, however, as this may affect the price the public would have to pay. In most cases, residential land is acquired for park and school use; for this reason, the Public Use category is considered as a "Residential Land Use". Because the location of these sites depends a great deal on price and availability, the City and School District will have to make decisions at the time the acquisition is needed about the best location.

Residential Land Use Goals and Policies

Policies

- D-1.1 Residential areas should be designed around a neighborhood concept. Neighborhoods should be an identifiable unit bounded by arterials, non-residential uses, or natural features of the terrain. The neighborhood should provide a focus and identity within the community and should have a community facility, such as a school, park, or privately owned community facility to allow for interaction within the neighborhood.

- D-1.2 Developments in residential areas should be constructed in such a way that they will not seriously deteriorate over time. Zoning ordinances should be strictly enforced to prevent encroachment of degrading non-residential uses. Construction standards in the State Building Code

shall be vigorously enforced. Woodburn is committed to adopting a housing code to improve the housing stock in the community.

- D-1.3 Development should promote, through the use of moderate density standards and creative design, a feeling of openness and spaciousness with sufficient landscaped area and open space to create a pleasant living environment. Higher density areas should be located near jobs, shopping and/or potential transit services.
- D-1.4 Streets in residential areas should be used by residents for access to collectors and arterials. Residential streets should be designed to minimize their use for through traffic. However, whenever possible, dead-end streets and cul-de-sacs should be avoided.
- D-1.5 Residential developments should strive for creative design that will maximize the inherent values of the land being developed and encourage slow moving traffic. Each residential development should provide for landscaping and tree planting to enhance the livability and aesthetics of the neighborhood.
- D-1.6 Except in areas intended for mixed use, non-residential uses should be prevented from locating in residential neighborhoods. Existing non-conforming uses should be phased out as soon as possible.
- D-1.7 Home occupations and combination business and home should be allowed only if the residential character is unaffected by the use.
- D-1.8 High traffic generating non-residential uses should not be located in a manner that increases traffic flows on residential streets or residential collectors. However, designated neighborhood commercial centers in Nodal Development areas are exempt from this policy.
- D-1.9 Industrial and commercial uses that locate adjacent to a residential area should buffer their use by screening, design, and sufficient setback that their location will not adversely affect the residential area.
- D-1.10 High density residential areas should be located to minimize the possible deleterious effects on any adjacent low density residential development. When high density and low density areas abut, density should decrease in those high density areas immediately adjacent to low density residential land. Whenever possible, buffering should be practiced by such means as landscaping, sight-obscuring fences and hedges, and increased setbacks. This policy does not apply in Nodal Development areas.

D-1.11 Traffic from high density residential areas should have direct access to collector or arterial streets without having to utilize local residential streets to reach shopping and job centers.

Housing Goals and Policies

Goal

D-2. The housing goal of the City is to ensure that adequate housing for all sectors of the community is provided.

Policies

D-2.1 The City will ensure that sufficient land is made available to accommodate the growth of the City, consistent with the 2005 Woodburn Residential Land Needs Analysis. This requires that sufficient land for both high density and low density residential developments is provided within the confines of the growth and development goals of the City. It is the policy of the City to assist and encourage property owners, whenever possible, to rehabilitate and renew the older housing in the City.

D-2.2 It is the policy of the City to encourage a variety of housing types to accommodate the demands of the local housing market. In Woodburn, the following needed housing types shall be allowed, subject to clear and objective design standards, in the following zoning districts:

Policy Table 2: Needed Housing Types and Implementing Zoning Districts

Needed Housing Type	Implementing Zoning District(s)
Single Family Detached Residential	RS Single Family Residential RS1 Retirement Community SFR RSN Nodal Development SFR
Manufactured Dwellings On Individual Lots In Parks	RS Single Family Residential RS1 Retirement Community SFR RM Medium Density Residential
Attached Single Family Residential (Row Houses)	RMN Nodal Residential
Duplexes On Corner Lots Generally	RS Single Family Residential RM Medium Density Residential
Multi-Family Generally Above Commercial	RM Medium Density Residential RMN Nodal Residential DDC Downtown Development and Conservation NNC Nodal Neighborhood Commercial
Government Assisted Housing* Farm Worker Housing* Rental Housing*	These "housing types" are based on financing or tenure, and are not regulated by the City. If the housing type (e.g., single family, manufactured dwelling, attached single family, duplex, or multi-family) is allowed in the underlying zoning district, these "housing types" are allowed subject to applicable design standards.

* Note that the City regulates housing development to ensure quality construction and design, but does not regulate based on tenure.

- D-2.3 To ensure that new concepts in housing are not restricted unduly by ordinances, the City shall periodically review its ordinances for applicability to the current trends in the housing market. The R1S District is an example of Woodburn's efforts to providing affordable housing for seniors, by allowing single-family homes on lots as small as 3,600 square feet.
- D-2.4 To provide for the persons living in the community of a lower income, the City will accept its regional share of low income housing. This policy is not intended to provide an overabundance of low income housing.
- D-2.5 To provide for needed housing close to neighborhood shopping with a pedestrian orientation, Woodburn shall adopt a new Nodal Development Overlay. This overlay designation shall apply in Southwest Woodburn as shown on the Woodburn Comprehensive Plan Map. Special design standards shall ensure a pedestrian orientation and compatibility between the residential and commercial uses.
- D-2.6 Woodburn is committed to providing affordable homeownership opportunities to its citizens. For this reason, Woodburn zoning regulations will allow rowhouses (attached single-family homes) and detached single-family homes on smaller lots (4,000 sq. ft. minimums) within Nodal Development areas.
- D-2.7 Woodburn shall amend existing zoning districts to implement the Nodal Development concept to allow:
- (a) Increased density in the RM Medium Density Residential District;
 - (b) Rowhouses with alley access and front porches in the RM Medium Density Residential District; and
 - (c) Small-lot single family homes with alley access and front porches in the RS Single Family District.

E. Industrial Land Development and Employment

The 2001 Woodburn Economic Opportunities Analysis (EOA) and Economic Development Strategy provide the basis and policy direction for Woodburn's economic development efforts. Generally, Woodburn is committed to providing the infrastructure and land base necessary to attract higher-paying, non-polluting jobs. This change is necessary to reverse recent trends that saw Woodburn becoming a bedroom community, with residents commuting to the Portland and Salem areas for employment. For Woodburn to be competitive, it must make the most of its key comparative advantage –

location along the Interstate 5 Corridor. Woodburn is surrounded by agricultural resource land, therefore the City cannot avoid using agricultural land to provide suitable industrial sites. Consequently, in order to meet the City's economic development objectives, several large parcels along the I-5 corridor have been reserved exclusively for industrial use. To ensure that these industrial sites along I-5 are used solely for targeted industrial uses, Woodburn has adopted stringent policies to prevent the re-designation of industrial sites in the Southwest Industrial Reserve overlay (SWIR) to commercial or residential uses. In addition, large minimum parcel sizes will ensure needed large industrial sites are preserved.

Industrial Land Designations

Location of industrial lands poses more of a problem than any other use in urban areas. They are essential for the City, and in Woodburn's case, must be expanded to accommodate future needs. In general, this type of land use requires good transportation access, served preferably, but not necessarily, by both railroad and highway. Reserving industrial sites with direct access to Interstate 5 is critical to the City's economic development efforts. Generally, industrial land should not be located adjacent to residential areas without some type of buffering use in between the industrial use and the residential areas; either green space or a major road or other similar buffer. There are five areas that have been established for industrial use in Woodburn. They meet all of the above criteria. They are:

1. In the southeast quadrant of the City;
2. In the northeast quadrant of the City; the Woodburn Industrial Park and surrounding development;
3. The area between North Front Street and Mill Creek, north of the Woodburn High School;
4. The southwest quadrant of the I-5 interchange area, which shall be expanded as a result of the 2003 plan amendment process.
5. The Downtown area.

Each of these areas serves a different purpose in the City's long-range industrial development plans. The majority of the development in the Southeast Industrial area is either in the City limits or closely adjacent to it. The majority of land in this Southeast area is being used for spray irrigation of industrial wastes from the food processing plant. As it has been zoned industrial in the County for some time, the City proposed, and the County agreed, that it would be best to have this area in the Urban Growth Boundary so future expansion of the food processing facility on the industrial land would be controlled and regulated by the City. This industrial area could realize additional development.

The Industrial Park area was really the beginning of Woodburn's industrial expansion in the 1970s. It has been very successful and now covers a large amount of land between the Southern Pacific Railroad and Highway 99-E north of State Highway 214. However, almost all of the developable land has either been sold to industries that intend to locate in Woodburn or is under development. It is expected that full build-out will be realized within the next several years.

The industrial area on North Front Street north of the Woodburn High School was selected for of several reasons. First of all, it is close to State Highway 214 and therefore has good highway access. Second, a spur line from the Southern Pacific Railroad could be developed to serve industries locating in this area. Third, an excellent buffer exists in the Mill Creek area to buffer the industrial uses from the adjacent residential uses. It should be pointed out, however, that industrial uses should not be located in or near the floodplain and extensive screening must be employed by industrial uses.

The fourth industrial area, the southwest quadrant of the interchange was selected because it is an excellent site for target industries identified in the Economic Opportunities Analysis. Not all industries desire to locate on railroads. Indeed some cannot because vibration from the railroad upsets sensitive instruments used in some industrial processes. The key locational factor desired by targeted industries identified in the EOA is access to, and visibility from, Interstate 5. Therefore, the industrial area along Interstate-5 provides the primary location for targeted industries in Woodburn. It also affords excellent visibility for industries that wish to maintain good visibility and high corporate image.

The fifth Industrial area is the Downtown area. This area is the old downtown industrial center. It is the first and the original Industrial area in Woodburn. This Industrial area is located along the SPRR in Downtown Woodburn. The railroad was utilized for transportation. This sector has historical significance when considering the path Woodburn has taken. This Industrial area can realize additional development and possible redevelopment.

It should be noted that of the five industrial areas in Woodburn, only two, the North Front Street area and the Interstate 5 area are available for future large-scale industrial expansion.

Industrial Development Goals and Policies

Goal

- E-1. Woodburn shall provide and maintain an adequate supply of suitable industrial sites to attract targeted firms consistent with Statewide Planning Goal 9 (Economy of the State), the recommendations of the 2001 Woodburn Economic Opportunities Analysis and the Woodburn Economic Development Strategy.**

Policies

- E-1.1 It is the policy of the City to provide for developments that, whenever possible, will allow residents of the City of Woodburn to work in Woodburn and not have to seek employment in other areas. To accomplish this the City should encourage a healthy job market within the City and enough available industrial land for industrial growth to accommodate the residential growth expected in the City.
- E-1.2 Industrial land should be located to take advantage of Interstate 5 access or rail transportation.
- E-1.3 To minimize impacts on Marion County's agricultural land base, Class I agricultural soils shall be preserved outside the UGB. At the same time, it is important that industrial lands be located in relatively flat areas, which have suitable soils and that are free from flooding dangers.
- E-1.4 Industrial areas that are located adjacent to arterial streets or to residential areas should be controlled through site plan review and buffer zones to minimize the impact of industrial uses.
- E-1.5 Industries that, through their operating nature, would contribute significantly to a deterioration of the environmental quality of air, land, or water resources of the City should be forbidden to locate within the City limits.
- E-1.6 The city deems the industrial park concept the most desirable form of industrial development. Whenever possible the industrial park concept will be encouraged in an attractive and functional design. Master planning of industrial areas shall be required prior to annexation of industrial land to the City. Master plans shall reserve parcels of sufficient size to meet the needs of targeted industries identified in the EOA.
- E-1.7 Nonconforming industries shall be encouraged to find other areas to locate.

- E-1.8 Industrial lands shall be protected from encroachment by commercial or other uses that will either increase the price of industrial land or cause traffic generation that will interfere with the normal industrial practices.
- E-1.9 The industries attracted and encouraged by the City to locate in Woodburn should generate jobs that would upgrade the skills of the local labor pool.

Goal

- E-2. Woodburn shall reserve suitable sites in the Southwest Industrial Area for targeted industrial firms, as directed by the 2001 Woodburn Economic Opportunities Analysis.**

Policies

- E-2.1 Woodburn shall designate industrial land near Interstate 5 with a SWIR (Southwest Industrial Reserve overlay) designation. Land within this designation shall be reserved exclusively for industrial uses identified in the EOA, and shall not be converted to another commercial or residential plan designation.
- E-2.2 A master development plan shall be approved by the City Council prior to annexation to the City. The master plan shall show how streets, sanitary sewer, water and stormwater services will be sized and located to serve the entire SWIR area. The master plan shall show how arterial, collector and local street access will be provided to each lot if land division is proposed. The proposed master plan shall be referred to Marion County for comment prior to consideration by the City Council.
- E-2.3 This SWIR master plan shall demonstrate how sites with the size and access characteristics identified in the EOA will be maintained, consistent with Policy Table 3, below:

**Policy Table 3: Site Sizes That Must be Maintained on Specific
Parcels Through the Master Planning Process**

Sites (by assessor tax lot number)	Buildable Acres	Required Lot Sizes (ranges shown in acre)	Conceptual Lot Sizes (in acres)	Special Standards
52W11 TL 300	88	25-50 10-25 10-25 5-10 5-10 2-5 2-5	35 15 15 8 8 4 3	Land division permitted with master plan approval
Subtotal:			88	
52W14 TL 200 52W14 TL 600	22	10-25 5-10	15 7	Land division not permitted
Subtotal:			22	
52W13 TL 1100 52W14 TL 1500 52W14 TL 1600	96	96	96	Land division not permitted Shall be developed with a use with at least 300 employees
52W14 TL 800 52W14 TL 900 52W14 TL 1000 52W14 TL 1100	106	50-100 25-50 2-5 2-5	65 33 4 4	Land division permitted with master plan approval 50-100 acre lot shall be developed with a use with at least 200 employees
Subtotal:			106	
52W4 TL 1200	4	2-5	4	Land division not permitted
52W23 TL 100	46	25-50 5-10 2-5	35 8 3 46	Land division permitted with master plan approval
TOTAL SWIR	362		362	

Marion County Economic Coordination Goals and Policies
Goal

Marion County's economic development goals address the importance of maintaining a diverse employment base with living wage jobs. The goals include:

- E-3. Encourage diversity and balance of job types (e.g., service and industry jobs); promote economic opportunity for all segments of society; encourage a sustainable local and regional economy; and**

tailor economic development to the unique assets and needs of the county and the City of Woodburn.

Policies

- E-3.1 Consistent with Marion County Framework Plan policies, the City of Woodburn has conducted an Economic Opportunities Analysis (EOA) consistent with the Goal 9 Rule (OAR Chapter 660, Division 9) that:
 - (a) Inventories lands suitable for employment use by parcel size;
 - (b) Calculates the capacity for jobs in existing Commercial and Industrial plan designations;
 - (c) Forecasts future employment by sector;
 - (d) Identifies industries that are likely to locate in Woodburn;
 - (e) Determines the siting needs of targeted industries;
 - (f) Determines whether there are existing sites within the UGB that meet site suitability criteria and are not needed for other land uses; and
 - (g) Identify sites outside the UGB that meet site suitability criteria if there are inadequate sites within the UGB.

- E-3.2 Expand the Woodburn UGB to meet identified industrial siting needs in the 2001 Woodburn EOA, consistent with the Statewide Planning Goals and other County guidelines adopted as part of this section.

- E-3.3 Review plans and implementing ordinances to ensure an adequate supply of suitable sites to meet the needs of targeted industries, as required by ORS 197.212 et. seq.

- E-3.4 Work with Marion County, economic development agencies, area economic development groups, and major institutions to provide information to support development of a region-wide strategy promoting a sustainable economy.

F. Commercial Land Development and Employment

Commercial Land Designations

Commercial lands also pose difficulty in deciding their proper location because of the high traffic that is generated by commercial uses and the necessity for good

transportation facilities improvements. They also can impact quite severely on adjacent residential uses and this must be considered in their location, and especially in their zoning. The commercial areas of the City should to develop at higher densities instead of a sprawling type development. There are basically five major commercial areas in Woodburn, and they should serve the City for the foreseeable future.

The first commercial area that the City developed was the downtown. It is located on both sides of a railroad track and despite problems in the recent past, it has remained an essential part of the City's economy. It is in a transitional stage at present as it no longer serves as the center of retailing for Woodburn. However, Downtown Woodburn has experienced a renaissance of new investment from the Latino community. Downtown Woodburn is becoming known throughout the state for its authentic Mexican cultural amenities, shops and restaurants. Although some buildings suffer from a lack of maintenance and outmoded buildings, some have been remodeled and updated to provide a greater share of Woodburn's services in the future.

The second large commercial area that developed in the City is the commercial strip along Highway 99E. The strip zoning along 99E has caused many problems in the City of Woodburn. This is because this type of development is the least efficient use of commercial land and highway frontage. Woodburn will work with property owners towards redeveloping this area in the future. By limiting the supply of vacant "green field" commercial land within the UGB, redevelopment of underutilized strip commercial lands is more likely to occur. Access control policies shall be observed when street improvements occur.

The third large area of commercial development in the City is the I-5 Interchange. This contains one small shopping center, a large retail use (Wal-Mart), a developing outlet mall, and other highway related uses. In general, commercial uses on the west side of the freeway should be limited to highway related interchange type uses, while on the east side, a more general commercial nature should be encouraged. There are approximately 60 acres available for development located southwest of Evergreen Road. This land should be developed as a large integrated shopping center when Woodburn's population justifies it. Access control in the I-5 interchange area is extremely important, because traffic congestion is the limiting factor for growth west of the freeway. This issue is addressed extensively in the 2005 Woodburn Transportation Systems Plan.

The fourth commercial area is the Highway 214/211/99E "Four Corners" intersection. This area has become an important commercial district within the City. This "Four Corners" area serves as a more local retail service center. This commercial district could realize more development in the future. In this area development should be intensified so as to not create another commercial strip development.

The fifth commercial center serves the Nodal Development Overlay area near Parr Road, east of I-5. A 10-acre site has been reserved for neighborhood commercial uses that will serve the higher density, nodal residential development within walking distance (generally one-half mile or less) of the center. The center will be designed with a pedestrian focus, with limited parking. The City shall adopt a new NNC (Nodal Neighborhood Commercial) District to implement this concept.

In addition to these five major areas there are three other minor commercial areas, two of which are set aside for office uses. One at the S-Curve near Cascade Drive and State Highway 214 and one at the northwest quadrant of the intersection of Settlemier Avenue and State Highway 214. To minimize the impact along State Highway 214 only low traffic generating uses such as offices and other service centers should be located along those streets. Large retail uses are not consistent with the overall plan concept for these two areas, although neighborhood-serving retail uses such as delicatessens and coffee shops are allowed. The third small commercial area will be located along Boones Ferry Road, just north of a tributary to Mill Creek, near the northern edge of the UGB. This 2-acre area will serve the day-to-day retail and service needs of recent and planned residential development in the North Boones Ferry Road area.

Commercial Lands Goals and Policies

During the 1990s, Woodburn experienced large-scale commercial growth near Interstate 5. Although commercial development has provided jobs for many Woodburn residents, this growth has contributed to congestion at the I-5/Highway 214 Interchange, which has constrained the City's ability to attract basic industrial employment that requires I-5 access. Therefore, Woodburn should discourage additional land for "big box" or large-scale auto-dependent commercial development. Woodburn will encourage infill and redevelopment of existing commercial sites, and will encourage neighborhood-serving commercial developments in Nodal Development areas.

Goal

- F-1. Encourage infill and redevelopment of existing commercial areas within the community, as well as nodal neighborhood centers, to meet future commercial development needs.**

Policies

- F-1.1 The City should at all times have sufficient land to accommodate the retail needs of the City and the surrounding market area while encouraging commercial infill and redevelopment. The City presently has five major commercial areas: 99E, I-5 Interchange, the downtown

area, the Parr Road Nodal Commercial area, and the 214/211/99E four corners intersection area. No new areas should be established.

- F-1.2 Lands for high traffic generating uses (shopping centers, malls, restaurants, etc.) should be located on well improved arterials. The uses should provide the necessary traffic control devices needed to ameliorate their impact on the arterial streets.
- F-1.3 Strip zoning should be discouraged as a most unproductive form of commercial land development. Strip zoning is characterized by the use of small parcels of less than one acre, with lot depths of less than 150 feet and parcels containing multiple driveway access points. Whenever possible, the City should encourage or require commercial developments which are designed to allow pedestrians to shop without relying on the private automobile to go from shop to shop. Therefore, acreage site lots should be encouraged to develop "mall type" developments that allow a one stop and shop opportunity. Commercial developments or commercial development patterns that require the use of the private automobile shall be discouraged.
- F-1.4 Architectural design of commercial areas should be attractive with a spacious feeling and enough landscaping to reduce the visual impact of large expanses of asphalt parking areas. Nodal commercial areas should be neighborhood and pedestrian oriented, with parking to the rear or side of commercial buildings, and with pedestrian connections to neighboring residential areas.
- F-1.5 It would be of benefit to the entire City to have Woodburn's Downtown Design and Conservation District an active, healthy commercial area. Downtown redevelopment should be emphasized and the City should encourage property owners to form a local improvement district to help finance downtown improvements. Urban renewal funds may also be used to fund planned improvements.
- F-1.6 Commercial office and other low traffic generating commercial retail uses can be located on collectors or in close proximity to residential areas if care in architecture and site planning is exercised. The City should ensure by proper regulations that any commercial uses located close to residential areas have the proper architectural and landscaping buffer zones.
- F-1.7 The Downtown Goals and Policies are included in Section K of the Plan and are intended as general guidelines to help the City and its residents reshape the downtown into a vital part of the community. Generally, development goals are broken into four categories, short-term goals, intermediate term goals, long-term goals, and continual goals.

Whenever development is proposed within the CBD these goals should be reviewed and applied as necessary so as to maintain balance and uniformity over time. Although not part of the Downtown Plan or Woodburn Comprehensive Plan, Urban Renewal funding can help to realize the goals and policies embodied in these land use plans.

- F-1.8 Ensure that existing commercial sites are used efficiently. Consider the potential for redevelopment of existing commercial sites and modifications to zoning regulations that intensify development to attract new investment.
- F-1.9 Adopt a new NNC (Nodal Neighborhood Commercial) District, to be applied in two Nodal Development Overlays:
- (a) Near the intersection of Parr Road and the Evergreen Road extension (approximately 10 acres); and
 - (b) At the north boundary of the UGB along Boones Ferry Road, north of the Mill Creek tributary (2-5 acres).

G. Growth Management and Annexation

Growth Management

Woodburn has learned from both its successes and mistakes during the last 20 years since the Woodburn Comprehensive Plan was first acknowledged in 1982. Woodburn has used the annexation process effectively to ensure that new development has adequate levels of public facilities and services. Woodburn has provided relatively affordable housing during a period of rapid growth. Most importantly, Woodburn is proud of its ability to accommodate new residents from diverse economic, social and ethnic backgrounds.

As part of its periodic review planning process, Woodburn incorporated growth management measures to increase efficiency of land use and improved livability, Woodburn is committed to:

- Reserving land near Interstate 5 for basic employment, rather than freeway oriented commercial development. Woodburn has adopted stringent master planning standards for Industrial development, that ensure efficient land use and retention of scarce industrial sites in the Southwest Industrial Reserve overlay (SWIR) area.
- Integrating its stream corridors and wetlands into the design of neighborhoods and commercial developments. Accordingly, Woodburn has inventoried its locally significant wetlands and riparian corridors, and

protected them from conflicting use by applying the “safe harbor provisions” of the Goal 5 rule.

- Using the master planning process as a pre-condition to annexation or development in Nodal Development Overlay and SWIR areas, to ensure that land is used more wisely and more efficiently.

Finally, Woodburn is committed to working closely with Marion County in joint efforts to manage growth within and immediately adjacent to the Woodburn UGB. Towards this end, Woodburn has incorporated important goals, policies and guidelines found in the Marion County Urban Growth Management Framework. In particular, Woodburn (as part of the 2003 code update process) has:

- Zoned land to provide the opportunity for housing to develop at over 10 units per net buildable acre (8 units per gross acre) under clear and objective standards;
- Made substantial amendments to the Woodburn Development Ordinance, as discussed in Section D, Housing; and
- Adopted minimum density standards that ensure that actual development occurs at 80% or more of the allowable density in each of its residential zoning districts.

Growth Management Goals and Policies

Goal

- G-1. The City's goal is to manage growth in a balanced, orderly and efficient manner, consistent with the City's coordinated population projection.**

Policies

- G-1.1 Woodburn will assure that all expansion areas of the City are served by public facilities and services with adequate capacity. Consideration of proposals that vary from City capacity standards and facility master plans shall include mitigating measures determined to be appropriate the Public Works Department. Other public service providers such as the School District and Fire District shall also address capacity considerations.
- G-1.2 Woodburn will encourage the optimum use of the residential land inventory providing opportunities for infill lots, intensifying development along transit corridors, and application of minimum densities

- G-1.3 The City shall provide an interconnected street system to improve the efficiency of movement by providing direct linkages between origins and destinations.
- G-1.4 The City shall assure the provision of major streets as shown in the Transportation Systems Plan. The City shall hold development accountable for streets within and abutting the development. In addition, the policy of the City is to emphasize development outward in successive steps and phases that avoid unnecessary gaps in the development and improvement of the streets.
- G-1.5 The City's policy is to consider the Capital Improvement Program (CIP) when investing public funds or leveraging private investment.
- G-1.6 The City shall encourage high standards of design and flexibility that are enabled by the PUD zone.
- G-1.7 The City's policy is to accommodate industrial and commercial growth consistent with the 2001 Woodburn Economic Opportunities Analysis (EOA).
- G-1.8 Woodburn's policy is to diversify the local economy. Woodburn seeks to diversify the local economy so that the community will prosper and can weather swings in the business cycle, seasonal fluctuations, and other economic variables. The intent is to provide a broad spectrum of commercial and industrial enterprises. The variety of enterprises will not only provide insulation from negative business factors, but a choice in employment opportunities that in turn allows for the diversification in income types.
- G-1.9 To ensure that growth is orderly and efficient, the City shall phase the needed public services in accordance with the expected growth. Extensions of the existing public services should be in accordance with the facility master plans and Public Facility Plan in this Comprehensive Plan.
- G-1.10 Woodburn will ensure that land is efficiently used within the UGB by requiring master development plans for land within Nodal Development Overlay or Southwest Industrial Reserve overlay designations. Master plans shall address street connectivity and access, efficient provision of public facilities, and retention of large parcels for their intended purpose(s).
- G-1.11 The City shall pay for public facilities with system development charges from anticipated growth.

- G-1.12 The County shall retain responsibility for regulating land use on lands within the urban growth area until such lands are annexed by the City. The urban growth area has been identified by the City as urbanizable and is considered to be available, over time, for urban development.
- G-1.13 The City and County shall maintain a process providing for an exchange of information and recommendations relating to land use proposals in the urban growth area. Land use activities being considered within the urban growth area by the County shall be forwarded by the County to the City for comments and recommendations.
- G-1.14 All land use actions within the urban growth area and outside the City limits shall be consistent with the City's Comprehensive Plan and the County's land use regulations.
- G-1.15 In order to promote consistency and coordination between the City and County, both the City and County shall review and approve amendments to the City's Comprehensive Plan which apply to the portion of the urban growth area outside the City limits. Such changes shall be considered first by the City and referred to the County prior to final adoption. If the County approves a proposed amendment to the City's plan, the change shall be adopted by ordinance, and made a part of the County's plan.
- G-1.16 The area outside the urban growth boundary shall be maintained in rural and resource uses consistent with the Statewide Land Use Planning Goals.
- G-1.17 The City and County shall strive to enhance the livability and promote logical and orderly development of the urban growth area in a cost effective manner. The County shall not allow urban uses within the Urban Growth Boundary prior to annexation to the City unless agreed to in writing by the City. City sewer and water facilities shall not be extended beyond the City limits, except as may be agreed to in writing by the City and the property owner and the owner consents to annex. The City shall be responsible for preparing the public facilities plan.
- G-1.19 Woodburn is committed to working with Marion County to minimize conversion of farm and forest lands, by achieving a compact urban growth form. The City shall zone buildable land such that the private sector can achieve 8 units per gross acre, consistent with the City's housing needs analysis. This efficiency standard represents the average density for new housing that will be zoned and allowed under clear and objective standards by the City. Through a combination of infill, redevelopment, vertical mixed use development and provision for smaller lot sizes and a greater variety of housing types, Woodburn

provides the opportunity for the private sector to achieve at least 8 dwelling units per gross buildable acre (after removing protected natural areas and land needed for parks, schools and religious institutions). Housing through infill and redevelopment counts as new units, but no new land consumption, effectively increasing the density measurement.

- G-1.20 Woodburn shall apply a minimum density standard for new subdivisions and planned unit developments of approximately 80% of the allowed density in each residential zone.
- G-1.21 As specified in the Marion County Framework Plan, the County's preliminary employment land use needs for Woodburn are replaced by the more detailed employment forecasts and site suitability analysis found in the 2001 Woodburn Economic Opportunities Analysis (EOA).
- G-1.22 Woodburn will consider residential and commercial redevelopment and infill potential for purposes of calculating UGB capacity, prior to expanding the UGB. Woodburn will also constrain the supply of commercial land to encourage redevelopment along Highway 214 west of Interstate 5, and along Highway 99W.
- G-1.23 Woodburn has identified two areas for mixed-use development – Downtown Woodburn and the Nodal Development District along Parr Road. The UGB Justification Report includes specific estimates of the number of new housing units and commercial jobs that can be accommodated in these overlay districts.

Annexation Goals and Policies

Goal

- G-2. The goal is to guide the shape and geographic area of the City within the urban growth boundary so the City limits:**
 - (a) Define a compact service area for the City;**
 - (b) Reflect a cohesive land area that is all contained within the City;
and**
 - (c) Provide the opportunity for growth in keeping with the City's goals and capacity to serve urban development.**

Policies

- G-2.1 For each proposed expansion of the City, Woodburn shall assess the proposal's conformance with the City's plans, and facility capacity and assess its impact on the community.

G-2.2 Woodburn will achieve more efficient utilization of land within the City by:

- (a) Incorporating all of the territory within the City limits that will be of benefit to the City.
- (b) Providing an opportunity for the urban in-fill of vacant and under utilized property.
- (c) Fostering an efficient pattern of urban development in the City, maximizing the use of existing City facilities and services, and balancing the costs of City services among all benefited residents and development.
- (d) Requiring master development plans for land within Nodal Development Overlay or Southwest Industrial Reserve overlay designations prior to annexation. Master plans shall address street connectivity and access, efficient provision of public facilities, and retention of large parcels for their intended purpose(s).

G-2.3 Woodburn will use annexation as a tool to guide:

- (a) The direction, shape and pattern of urban development;
- (b) Smooth transitions in the physical identity and the development pattern of the community; and
- (c) The efficient use and extension of City facilities and services.

H. Transportation

Transportation Goals and Policies

Woodburn amended its Transportation System Plan (TSP) in coordination with Marion County, the Department of Land Conservation and Development (DLCD) and the Oregon Department of Transportation (ODOT) as part of its 2005 Periodic review package. The goals and policies listed below have been amended consistent with the 2005 TSP. A new "Marion County Coordination" subsection is added to ensure coordination with the Goals and Policies of the Marion County Growth Management Framework Plan.

Goal

- H-1. Develop a multimodal transportation system that avoids or reduces reliance on one form of transportation and minimizes energy consumption and air quality impacts.**

Policies

- H-1.1 Develop an expanded intracity bus transit system that provides added service and route coverage to improve the mobility and accessibility of the transportation disadvantaged and to attract traditional auto users to use the system.
- H-1.2 Develop a plan for providing travel options between Woodburn and Portland or Salem, including intercity bus service and potential bus/carpool park-and-ride facilities.
- H-1.3 Develop a bikeway system that provides routes and facilities that allow bicyclists to travel from residential areas to schools, parks, places of employment, and commercial areas. Identify off-street facilities in City greenway and park areas. Ensure all new or improved collector and arterial streets are constructed with bicycle lanes.
- H-1.4 Identify sidewalk and off-street pathway improvements to improve pedestrian mobility within neighborhoods and between residential areas and schools, parks, places of employment, and commercial areas. Ensure all new or improved collector and arterial streets are constructed with sidewalks.

Goal

- H-2. Develop a street system that will handle projected year 2020 traffic demands in the Woodburn area, and interconnects residential areas with employment centers, schools, parks, churches, and regional transportation facilities.**

Policies

- H-2.1 Develop an updated roadway functional classification plan for the Woodburn area that reflects the desired function of different roadways, and is consistent with current federal guidelines for the designation of major streets in an urban area.
- H-2.2 Develop a strategy for improving Oregon 219/214, 211, and 99E through Woodburn, including added travel lanes, signalization, and access management.

- H-2.3 Identify new east-west and north-south collector/minor arterial streets within the City to relieve traffic demands on Oregon 219/214, 211, and 99E and coordinate with Marion County to construct the street connections needed outside of the urban growth boundary (UGB).
- H-2.4 Develop updated street design standards for arterials, collectors, and local streets
- H-2.5 Identify a final strategy for paving currently unimproved streets in the City.
- H-2.6 Identify the need for additional public parking provisions in Woodburn, including park-and-ride facilities, as well as a plan to support increased carpooling and transit use in the future.
- H-2.7 Develop a capital improvement program that fulfills the transportation goals established by the community.

Goal

H-3. Develop transportation improvements that address overall traffic safety in the Woodburn area.

Policies

- H-3.1 Develop access management strategies for Oregon 219/214, 211, and 99E through Woodburn, particularly focusing on the section of Oregon 214 between Interstate 5 (I-5) and Cascade Drive, and Oregon 99E south of Lincoln Avenue.
- H-3.2 Develop a plan for improving pedestrian and bicycle safety for travel to and from local schools, commercial areas, and major activity centers.
- H-3.3 Identify street and railroad crossings in need of improvement, as well as those that should be closed or relocated.
- H-3.4 Develop a plan for designated truck routes through the City and a plan to handle truck and rail hazardous cargoes.

Goal

H-4. Develop a set of reliable funding sources that can be applied to fund future transportation improvements in the Woodburn area.

Policies

- H-4.1 Evaluate the feasibility of the full range of funding mechanisms for transportation improvements.
- H-4.2 Evaluate the feasibility of instituting an added City gas tax for transportation improvements.
- H-4.3 Identify a traffic impact fee structure for new development in the Woodburn area to fund transportation improvements.

Goal

- H-5. Develop amendments to City land use standards and ordinances to reduce travel demand and promote use of modes of transportation other than the automobile.**

Policies

- H-5.1 Identify a range of potential Transportation Demand Management (TDM) strategies that can be used to improve the efficiency of the transportation system by shifting single-occupant vehicle trips to other models and reducing automobile reliance at times of peak traffic volumes.
- H-5.2 Identify revisions to the Woodburn Zoning Ordinance for compliance with the TPR.

Goal

- H-6. Coordinate with Marion County in planning for a safe and efficient county-wide transportation system by:**
 - (a) Encouraging use of alternative modes of transportation including mass transit, bicycling, walking and carpooling; and**
 - (b) Addressing transportation needs appropriate to both urban and rural areas throughout the county.**

Policies

- H-6.1 Woodburn shall jointly plan with the county to meet the transportation needs in the future.
 - (a) The Marion County Transportation System Plan (TSP) will be designed to accommodate the forecast population, housing, and employment identified in the Framework Plan, except where

modified by the Woodburn Economic Opportunities Analysis (EOA) and the acknowledged 2005 Woodburn Comprehensive Plan.

- (b) Woodburn supports Marion County efforts to investigate countywide alternative transportation, such as inter-city transit, vanpooling, and passenger rail service serving the county and the Willamette Valley region.

H-6.2 Woodburn will implement plans as provided in the Woodburn TSP.

- (a) Except where topographical conditions or existing development make this standard impractical, new subdivisions and planned developments should have internal connectivity of at least 8 through streets per mile (roughly every 660 feet) for new development, and sufficient collector and arterial systems for local access.
- (b) The TSP shall include a map depicting future street connections for areas to be urbanized. This is especially important in Nodal Development Overlay and Southwest Industrial Reserve overlay areas.
- (c) When feasible, the County will utilize standards in the Woodburn TSP and Woodburn Development Ordinance for development that occurs on unincorporated lands within the Woodburn Urban Growth Boundary.

H-6.3 Woodburn will support Marion County efforts to provide transit connections within and between cities. The Woodburn TSP shall include transportation plans for the Woodburn Transit System that is consistent with the population and employment projections in the Woodburn Comprehensive Plan and coordinated with the “preferred alternative” found in the County Framework Plan.

H-6.4 Woodburn should provide for a complementary mix of land uses and transportation systems by providing for mixed use development in the Downtown Development and Conservation (DDC) and the Nodal Development Overlay (NDO) districts.

H-6.5 Woodburn shall consider traffic calming of through traffic in neighborhoods. Woodburn will coordinate with Marion County in making recommendations for methods and procedures for traffic calming that directly affects a county road, developing recommended best practices for methods, locations, and processes for traffic calming in both existing and new developments.

H-6.6 Woodburn will coordinate with Marion County in planning for freight movement by both rail and truck.

H-6.7 The Woodburn TSP shall include measures to improve the walking and biking environment by providing sidewalks in all new developments and by providing an interconnecting system of pedestrian connections. Designing for a comfortable and practical pedestrian environment is especially important in Downtown Woodburn and within the Nodal Development Overlay.

Goal

H-7. Coordinate with the Oregon Department of Transportation (ODOT) to maintain highway and intersection capacity, safety and functionality by:

(a) Developing and adopting performance standards; and

(b) Prohibiting comprehensive plan amendments that do not meet adopted performance standards.

Policies

H-7.1 The Woodburn TSP shall implement an interchange management plan within the UGB based on potential and substantial adverse impacts to the I-5 Interchange.

(a) Peak hour trip generation estimates and numerical ceilings based on land uses permitted by the 2005 Woodburn Comprehensive Plan shall be determined for each designated sub-area.

(b) The City will coordinate with ODOT in monitoring trip generation impacts for each designated sub-area, considering the cumulative impacts of existing and new development.

(c) Transportation impact studies shall be required for subdivisions and planned developments, and for new commercial, industrial, public and multi-family residential development within designated sub-areas.

(d) Comprehensive Plan amendments that exceed the trip generation ceiling for a designated sub-area shall be prohibited.

(e) Comprehensive Plan amendments from Industrial to Commercial shall be prohibited, regardless of impact, within the SWIR Overlay.

- (f) Woodburn shall provide ODOT with copies of transportation impact studies upon request, and as part of the Periodic Review process.
- (g) Woodburn shall coordinate with ODOT, DLCD and Marion County to address potential service deficiencies affecting state highway facilities through the Periodic Review process.

H-7.2 The City shall implement medium-term conservation measures to limit access to Highways 214 and 219. Such measures shall include, but shall not be limited to:

- (a) Limitations or prohibition on private access within a quarter of mile east and west of interchange ramp terminals;
- (b) Access controls on, public road approaches; and
- (c) Raised medians from Woodland to Oregon Way along Highways 219 and 214.

I. Public Facilities

Public Facilities Goals and Policies

Goal

- I-1. **Public facilities and services shall be provided at levels necessary and suitable for existing uses. The provision for future public facilities and services in these areas shall be based upon approved master plans that consider: (1) the time required to provide the service, (2) reliability of service, (3) financial cost, and (4) levels of service needed and desired.**

Policies

- I-1.1 Public Facilities and services shall be appropriate to support sufficient amounts of land to maintain an adequate housing market in areas undergoing development or redevelopment.
- I-1.2 The level of key facilities that can be provided should be considered as a principal factor in planning for various densities and types of urban land uses.

Wastewater Goals and Policies

Goal

- I-2. Develop a system that will comply with regulatory treatment requirements of the Clean Water Act for anticipated wastewater flows and reduce the amount of pollutants that are released to the environment.**

Policies

- I-2.1 Develop a plan to treat the City's wastewater flows that ensures desired efficient quality is maintained under all flow conditions.
- I-2.2 Develop a plan for a collection system that has the capacity to convey the wastewater flows generated.
- I-2.3 Develop a maintenance plan that ensures the wastewater treatment system maintains a high degree of reliability throughout its design lifetime.
- I-2.4 Develop an active Inflow/Infiltration (I/I) program that will reduce the levels of I/I flows to the treatment facility.
- I-2.5 Develop a system to monitor and regulate the flows from industrial customers whose wastewater is treated by the City.

Goal

- I-3. Develop a plan that will economically provide for the treatment of wastewater generated by the City's sewer customers accounting for projected growth through the year 2020.**

Policies

- I-3.1 Project the wastewater treatment needs of the City through 2020 and provide the land, financial resources and infrastructure to meet those projected demands.
- I-3.2 Develop a facility master plan to meet the requirements of the Clean Water Act and any other regulatory requirements for the projected system demands.
- I-3.3 Regularly update the plan to guide the City efficiently through anticipated growth to comply with any changed regulatory requirements and evaluate if existing plans are satisfactory.
- I-3.4 Evaluate the feasibility of the full range of funding options for wastewater system improvements to fairly distribute costs and regularly evaluate the adequacy of established fees and charges.

- I-3.5 Evaluate the potential impacts of water conservation programs that mitigate some of the increased demands associated with projected future growth.
- I-3.6 The City shall acquire additional land for a poplar tree plantation for tertiary treatment of waste sludge, as needed to accommodate future growth.

Domestic Water Goals and Policies

Goal

- I-4. Develop a system that will provide the water system's customers with safe drinking water that meets quality expectations in sufficient quantity to meet the demand.**

Policies

- I-4.1 Develop a plan to treat the City's water supply to reduce elevated levels of iron and manganese, which provide undesirable aesthetic effects.
- I-4.2 Develop a plan to monitor and react to changing regulatory requirements to ensure that the City is able to supply water that complies with all provisions of the Safe Drinking Water Act.
- I-4.3 Develop a supply and distribution system that provides for reliable fire protection.
- I-4.4 Develop a Wellhead Protection Program for the City that will serve to provide the greatest practical protection for the groundwater resources that provide the City's drinking water supply.

Goal

- I-5. To economically provide safe, plentiful drinking water to the City's water system customers accounting for projected growth through the year 2020 in accordance with the City of Woodburn Water Master Plan.**

Policies

- I-5.1 Project the water needs of the system through 2020 and provide the resources and infrastructure to meet these projected demands. Monitor the status of water rights granted the City.

- I-5.2 Develop a facility master plan to meet the water quality goals and requirements, water system distribution needs, desired water storage capacities and future water supply projections.
- I-5.3 Regularly update the plan to guide the City efficiently through anticipated growth to comply with regulatory requirements, identify additional sources, determine treatment options and evaluate service quality.
- I-5.4 Evaluate the feasibility of the full range of funding options for water system improvements to fairly distribute costs and regularly evaluate the adequacy of established fees and charges.
- I-5.5 Evaluate and monitor alternative sources that may be utilized if contamination or other situations make the existing source unusable and explore opportunities for regional cooperation in water supply.
- I-5.6 Evaluate potential impacts of water conservation programs to mitigate some of the increased demands associated with projected future growth.

J. Natural and Cultural Resources

The streams and watersheds within and outside the Woodburn UGB flow without regard to political boundaries, and their health depends on a consistent and coordinated conflict-management approach, involving the City, Marion County, and state agencies such as the Department of Fish and Wildlife, the Water Resources Department, the Division of State Lands, the Environmental Quality Commission, and the Land Conservation and Development Commission. Woodburn is committed to working with the County and these agencies to protect streams, wetlands, riparian corridors, floodplains, and associated wildlife areas from the negative effects of development in accordance with Statewide Planning Goals 5 (Natural Resources), 6 (Water Resources Quality), and 7 (Natural Hazards).

Woodburn's urban natural resources are found within the Mill Creek and Senecal Creek floodplains, riparian areas and locally significant wetlands. Woodburn has adopted a "safe harbor" approach to protecting these riparian corridors and wetlands, in accordance with the Goal 5 administrative rule.

Natural and Cultural Resources Goals and Policies

Goals

- J-1. It is the City's goal to preserve the Mill Creek and Senecal Creek riparian system, including floodplains, riparian areas and locally significant wetlands. Woodburn is also committed to protecting fish

and wildlife habitat and natural vegetation associated with this riparian system, as shown on the Buildable Lands Map.

- J-2. It is the City's goal to preserve its unique and historically significant cultural and historical resources.
- J-3. It is the City's goal to preserve its air, water and land resources in such a way that the clean air the citizens now enjoy will continue in the future, the good quality and sufficient quantity of water which is now obtained from underground supplies will continue, and that the land resources within the City will be used in such a manner as to ensure that they will remain useful to future generations.
- J-4. Encourage and work with Marion County, affected state agencies and private landowners to protect water resources in and around the Woodburn UGB by requiring buffer zones to protect streams, floodplains, and significant wildlife areas from the negative effects of development.

Policies

- J-1.1 Trees within designated floodplains and riparian corridors shall be preserved. Outside of designated floodplains and riparian corridors, developers should be required to leave standing trees in developments where feasible.
- J-1.2 New development within the 100-year floodplain shall be prohibited unless no reasonable economic use can be made of a particular parcel of land. Floodplains should be set aside for City green ways and left in a natural state as much as possible. This would prevent building in the floodplain and provide a natural greenway throughout the City. In cases where limited development is allowed within a floodplain, the flood storage capacity of land within the floodplain shall be maintained through balanced cuts and fills.
- J-1.3 Woodburn will work with Marion County, watershed groups, and affected agencies to protect environmentally sensitive areas critical to watershed health as mapped on the Woodburn Buildable Lands Inventory. Natural and scenic areas associated with Woodburn's riparian systems shall be preserved through the City's Riparian Corridor and Wetland Overlay (RCWO) District.
- J-1.4 Woodburn has used the Division of State Lands (DSL) standards to identify locally significant wetlands. Locally-significant wetlands and buffers are protected by RCWO District standards.

- J-1.5 The RCWO District is based on the “safe harbor” provisions of the Goal 5 administrative rule (OAR Chapter 660, Division 23) and shall allow for planned public facilities necessary to support urban development on nearby buildable lands. The basic provisions of the RCWO District are as follows:
- (a) Except for planned public facilities and streets and riparian restoration and enhancement projects, new development is prohibited within floodplains and riparian corridors.
 - (b) The riparian corridor width shall be 50 feet from the top-of-bank or edge of an associated wetland. These standards require preservation of native vegetation within the 50-foot buffer area.
 - (c) In cases where no reasonable use of a parcel within the RCWO District is allowed by strict application of district standards, variances may be approved with mitigation.
- J-1.6 The City shall adhere to the standards set forth by the department of Environmental Quality and the Environmental Protection Agency for air quality and emissions control. In addition, the City should adopt and enforce its own standards above and beyond DEQ's, if it is deemed necessary to protect its citizens from local polluters.
- J-1.7 The primary noise sources within the community are generated by traffic on Interstate 5, Pacific Highway 99E, the Railroad, and two industrial sources: North Valley Seeds and Woodburn Fertilizer Company. Noise generated by these sources fall under the jurisdictional responsibilities of the Department of Environmental Quality. Also, any noise pollution sources associated with manufacturing or food processing in the community are regulated by DEQ. The City shall assist DEQ in the review of development permits to assure that State noise standards are met.
- J-1.8 The City of Woodburn shall coordinate its efforts in resolving solid waste disposal problems with Marion County.
- J-1.9 It is the policy of the City to protect the aquifers that supply Woodburn's domestic water by reasonable means. The City will work with Marion County to promote and target restoration efforts to critical groundwater areas and develop water management approaches such as monitoring and evaluation programs based on collaborative actions.
- J-1.10 For surface water regulations, it is City policy to support the Department of Environmental Quality in enforcement of water quality standards on Mill Creek, Senecal Creek and Pudding River.

- J-1.11 The policy for land use in the City is to use land in such a manner that the particular qualities of riparian systems and wetlands are enhanced by the development that occurs there. Land use in buildable areas should be maximized so that valuable riparian areas and wetlands are not wasted.
- J-1.12 Such uses as landfills, junkyards or industrial burial grounds should not be allowed within the City limits as such uses are wasteful of urban land and are not compatible with urban uses.
- J-1.13 The City should encourage the preservation and restoration of historically or architecturally significant buildings within the City. This could be done by giving assistance in seeking government funds and historic recognition, and by adopting development regulations that encourage preservation of historically or architecturally significant buildings.

K. Downtown Design

Vision Statements

During 1997, City officials, downtown business and property owners, Downtown Woodburn Association and interested citizens developed vision statements for the character and future revitalization of the Downtown. These vision statements shall be recognized by the City as the overall expression of the Downtown's future.

1. **IMAGE OF DOWNTOWN:** Downtown projects a positive image, one of progress and prosperity. Downtown improvements have been visible and well publicized. Downtown's image consists of a combination of elements – physical appearance, and a look, and feel that it is thriving, safe, and vital.
2. **SAFETY:** Downtown is a safe, secure place for customers, employees, and the general public. Safety and security are assured by volunteer efforts, and by physical improvements such as lighting which provides a sense of security.
3. **SOCIAL:** Downtown is a place where a diverse community comes together to work, shop, and play. It is a mirror of the community, the community's "living room". All persons in the community feel welcome, and a part of, their downtown.
4. **BUSINESS ENVIRONMENT:** Downtown is a thriving environment for a variety of businesses. The area contains a good mix of types of businesses, a good overall marketing program is in place, and businesses

provide friendly, reliable customer service and convenient hours of operation. Individual businesses are clean, attractive and present a good physical appearance.

5. **ATTRACTORS:** Downtown is the center of community life, and serves as a focus to define the community's historic and cultural heritage. A community market brings all of the City's diverse communities together every week. Downtown's architecture, the aquatic center and unique businesses serve as a regional attractor. In addition, downtown offers events and opportunities that draw people together to mingle, learn, and enjoy.
6. **NEIGHBORHOOD:** Downtown is a part of the City's oldest neighborhood. Businesses, government and employment uses are linked to residential neighborhoods, educational facilities, recreation opportunities and good transportation services. Throughout this central neighborhood, both renovation and new development respect the history and traditions of the community.
7. **TRANSPORTATION:** Downtown is easily accessible via the local street system, public transportation, and other alternate modes of transportation. Special transportation facilities improve circulation patterns within the downtown, and provide links between downtown and key events and places.
8. **PARKING:** While it is not appropriate to provide downtown parking at the same level as found in shopping centers, good utilization and management of the existing supply of downtown parking has been accomplished.
9. **IMPLEMENTATION:** Implementing the vision for downtown has involved both private and public investments. Investments are made in the management structure for downtown, and in capital improvements to improve the physical elements of downtown. Planning for these investments, and examining options to pay for them is an on-going process involving the City, Woodburn Downtown Association, property and business owners.

Short Term Goals and Policies

Goal

K-1. Rehabilitation and Financing of the Downtown Development Conservation District (DDCD)

Policies

K-1.1 Because of the decline in both business and industry downtown, many buildings have been abandoned and stand in a state of serious disrepair. It is important in the short term that these undesirable, unsafe structures be condemned and demolished if repair and maintenance is not practical.

Many buildings have been altered without regard to their surroundings, succumbing to short-term fads, leaving the buildings quickly looking out of date and incongruent. It is recommended that a system for removing selective building elements, cleaning, maintaining, painting, and adding selective elements be initiated.

K-1.2 Encourage a balanced financing plan to assist property owners in the repair and rehabilitation of structures. The Plan may include establishment of the following:

- (a) Support and encourage an effective urban renewal district.
- (b) Provide on-going investments in downtown improvements.
- (c) Economic Improvement District - a designated area, within which all properties are taxed at a set rate applied to the value of the property with the tax monies used in a revolving loan fund for building maintenance, and improvement.
- (d) Local, State, & National Historic District - a designated district within which resources, and properties are inventoried and identified for historic preservation.
- (e) Establish a "501 C-3" tax exempt organization for the purpose of qualifying for grants.
- (f) Adopt a Downtown Development Plan and funding strategy for Downtown improvements. Capital improvements shall be designed and constructed to be in harmony with the concepts portrayed in the Woodburn Downtown Development Plan, 1997.

- (g) Update the Downtown Development Plan at least every five years, and involve the Woodburn Downtown Association, property and business owners in the update process.

Goal

K-2. Improve Citizen Involvement in the DDCD.

Policies

- K-2.1 Maintain and support the organization of a downtown business watch group, where property owners can assist police in eliminating undesirable, illegal behavior in the DDCD.
- K-2.2 Business owners should encourage the involvement and education of their employees in downtown activities.
- K-2.3 The City shall oversee all development and ensure general conformance with this document.

Goal

K-3. Improve Open Space Within the DDCD.

Policies

- K-3.1 Introduce new plant materials to the Downtown Design and Conservation District, including: ground cover; shrubs; and trees. A program to introduce new plant materials would enhance the appearance of the entire downtown. Participation on the part of both the City and the downtown merchants will be needed to see these projects through to a reasonable conclusion.
- K-3.2 Design a set of uniform sign graphics for the DDCD. Using control in developing street graphics provides balance and facilitates easy, pleasant communication between people and their environment. Points of consideration would include: Area of sign, placement, symbols used, extent of illumination, colors, etc.
- K-3.3 Construct a central downtown plaza or square to serve as a public meeting place and center for cultural activities.

Intermediate Term Goals and Policies

Goal

K-4. Improve Pattern of Circulation Within the DDCD.

Policies

- K-4.1 Evaluate alternative circulation patterns for traffic flow. Patterns of pedestrian circulation improved through the repair and/or replacement of sidewalks. A means of providing a sense of place within the downtown accomplished by replacing damaged sections of sidewalk with a decorative brick like pattern of surfacing. Pedestrian safety increased by carrying this surfacing pattern across the streets at each intersection thereby creating a different color and texture over which the automobiles travel.
- K-4.2 Improve vehicular and safety access into and out of Downtown by improving North and South Front Streets.
- K-4.3 Curb ramps should be encouraged at all intersections. Improved wheelchair facilities throughout the CBD will provide access to a more diverse cross section of the City's population.

K-4.4 Efforts should continue to evaluate the feasibility of bicycle paths linking the CBD with City schools and parks.

Goal

K-5. Improve Utilities and Landscaping Within the DDCD.

Policies

K-5.1 Plans for capital improvement should include a schedule for replacement of overhead power and telephone lines with underground utilities.

K-5.2 Without an adequate system of underground irrigation within the DDCD, plans for landscaping not be as successful. The City will include in its Capital Improvement Programs plans to improve underground irrigation systems along streets and at intersections throughout the DDCD.

K-5.3 Street lighting can be both ornamental and useful in making the downtown safe and attractive. Cooperation from both private and public interests can result in a street lighting plan that both serves a utility and attracts people to shop in and enjoy the downtown.

K-5.4 Because of the costs involved in utility and landscaping improvements and the need to maintain general uniformity in designing improvements such as landscaping and street lighting, the Woodburn Urban Renewal Agency in cooperation with the City should develop a schedule for improvement that phases development.

Long Range and Continuous Goals

Goal

K-6. Attract Business to the DDCD.

Policies

K-6.1 To succeed, the DDCD should function in four ways:

- (a) As a center for small cottage industry, where goods are produced on a small scale for sale on both a local retail and a regional wholesale level;
- (b) As a neighborhood shopping center with retail stores, restaurants, offices and services;

- (c) As a City-wide hub with government and public buildings, arts and entertainment centers; and
- (d) As a regional and statewide center that celebrates cultural diversity and offers opportunities for education and tourism.

K-6.2 Complete alley improvements and implement Urban Renewal Plan.

Neighborhood Conservation Overlay District Goals and Policies

Goal

K-7. Preserve, to the greatest extent practical, the architectural integrity of Woodburn’s “older” (1890-1940) neighborhoods.

Policies

- K-7.1 Identify residential neighborhoods that contain dwellings built between 1890-1940, which represents that period of time the DDCD was developing.
- K-7.2 Encourage those areas that are determined to be the City’s older neighborhoods (1890-1940) to implement the neighborhood conservation overlay district.
- K-7.3 Seek funding sources to assist homeowners in rehabilitation efforts that implement overlay conservation districts standards.

L. Parks and Recreation

Open Space / Parks Goals and Policies

Goals

- L-1. The Woodburn Parks and Recreation Comprehensive Plan shall establish a framework for land acquisition and future park improvements within the community. It is the goal of the City to provide adequate parks, recreation facilities, and open space to maintain Woodburn’s livability and managed growth, and to provide social, economic and environmental benefits to individuals, families and the community.
- L-2. Downtown Woodburn should remain a centerpiece of activity, culture, and commerce within the City. Library Park, the Downtown Plaza, Woodburn Aquatic Center, Settlemier Park, the Woodburn World’s

Berry Center Museum, and Locomotive Park should be used as catalysts for downtown revitalization.

Policies

- L-1.1 The City will ensure that sufficient land is made available for parks and open spaces by adopting the system of facility types and standards in the 1999 Parks and Recreation Comprehensive Plan including: Mini-Parks; Neighborhood/School Parks; Community Parks; Municipal Parks; Greenways, Open Space, Trails and Pathways; and Cultural Resources and/or Special Use Parks/Facilities.
- L-1.2 The City will ensure the most efficient and effective means of providing sufficient land for neighborhood parks by adopting a neighborhood/school park concept including joint land acquisition and development, thereby strengthening the existing partnership between the City and the Woodburn School District.
- L-1.3 Where neighborhood/school parks are not feasible, it is the policy of the City to acquire neighborhood parks, when practicable, through the development review process.
- L-1.4 As a supplement to the City's neighborhood parks, required nodal master plans shall include provision for adequate park and recreational facilities.
- L-1.5 It is the policy of the City to manage Mill Creek, Goose Creek and Senecal Creek corridors as public greenways and pathways; multiple functions will include open space and habitat preservation, flood control, cycling and walking on all-weather pathways, nature recreation and education, and limited playground activities where there is a deficiency of neighborhood parks.
- L-1.6 To provide for a continuous public greenway and pathway system, it is the policy of the City to acquire privately-owned segments along Mill Creek, Goose Creek, and Senecal Creek and other stream corridors including the west tributary from Settlemier Park to Parr Road. It is the policy of the City to seek dedication of floodplains and creek corridors for natural areas, neighborhood recreation areas, open space and transportation.
- L-1.7 To ensure adequate maintenance of the City's parks, recreation, and open space facilities, the City will prepare comprehensive management plans including maintenance management standards for each facility.

- L-1.8 It is the policy of the City to require multi-family housing projects which exceed four (4) units to provide basic neighborhood park and playground facilities, based on development standards of the Recreation and Parks Department.
- L-1.9 Because recreation participation preferences and interests vary among employment, ethnic, social, and cultural groups, it is the policy of the City to exercise special sensitivity in selecting the types of recreation programs it offers, and in the design and management of parks, recreation and open space.

M. Energy Conservation

Energy Conservation Goals and Policies

Goal

- M-1. The goal of the City is to encourage conservation of energy in all forms, and to conserve energy itself in the City's operations, buildings, and vehicular use.**

Policies

- M-1.1 The City shall review its subdivision and construction codes periodically to ensure that the construction types which most conserve energy are encouraged in this City, but not at the expense of health and safety. The City shall encourage new construction types, within the limits of what can be permitted due to health and safety requirements, to permit further use of the solar energy that is available in the Woodburn area.
- M-1.2 The City shall increase its commitment to energy conservation, including alternative energy vehicles, increased recycling, and reduction in out-of-direction travel. The City shall encourage its citizens and visitors to conserve energy. Where feasible, the City should retrofit City buildings and structures so that they may be more energy efficient.
- M-1.3 In all new construction for the City energy systems that rely less on fossil fuels shall be investigated, and if cost effective at a long term, shall be utilized.
- M-1.4 Encourage a minimum energy conservation standard for existing residential buildings.
- M-1.5 Revise land development standards to provide solar access.
- M-1.6 Encourage investments in solar energy by protecting solar access.

M-1.7 Offer developers a density bonus for development utilizing energy conservation and solar energy measures.

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EXHIBIT A

WOODBURN ECONOMIC DEVELOPMENT STRATEGY ECONorthwest, _____, 2001

EXHIBIT B

CITY OF WOODBURN PUBLIC FACILITIES PLAN

EXHIBIT 1-A

1-A

**WOODBURN ECONOMIC
DEVELOPMENT STRATEGY**

**(ECONorthwest,
June 2001)**

Item No. 10
Page 700

**Woodburn Economic
Development Strategy
Phase II Report**

Prepared for

City of Woodburn

by

ECONorthwest

99 W. Tenth, Suite 400
Eugene, OR 97401
(541) 687-0051

Delivered
June 2001

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BACKGROUND

This report is an economic development strategy for the City of Woodburn. It is part of a project to improve the chances that Woodburn will get the type and quality of economic development its citizens desire. It describes (1) the City's vision for economic development, (2) issues related to achieving the economic development vision in Woodburn, and (3) recommended economic development policies and other changes to the City's Comprehensive Plan.

This report is the product of the second and final phase of a project that evaluated current and future economic conditions and issues in Woodburn. The first phase of this project resulted in the *Economic Opportunity Analysis*, which described past economic conditions and possible economic futures in Woodburn. The *Economic Opportunity Analysis* provides the base of information for this report, which describes the policies and actions that we reviewed and adopted in the second phase of the project.

The process and products of this project are designed to meet the requirements of Statewide Land Use Planning Goal 9 (Economy of the State) and the administrative rules that implement that goal (OAR 660-09-020).

ORGANIZATION OF THIS REPORT

This report is organized as follows:

Chapter 2: Economic Vision for Woodburn describes the City's vision for its economic future. That vision gives direction about the types of policies that the City will adopt to increase its probabilities of achieving that vision. Those policies get discussed in Chapters 3 and 4.

Chapter 3: Economic Development Issues compares conditions described in the *Economic Opportunity Analysis* with the City's vision for economic development to identify issues Woodburn must address to achieve its economic vision. It also identifies and provides some evaluation of policies the City could adopt to move toward the achievement of that vision.

Chapter 4: Recommended Goals and Strategies contains goals and actions the City of Woodburn can adopt as part of the economic element of their Comprehensive Plan.

Appendix A: Statewide Planning Goal Compliance Issues describes steps the City must take to ensure that the goals and actions in this report properly incorporated into the City's comprehensive plan. It includes a discussion of requirements for adding land to an urban growth boundary.

PURPOSE OF AN ECONOMIC VISION

There are many possible economic futures for Woodburn; there are some impossible ones as well. The challenge for the City is to decide on a future that is not only desirable, but that is also possible given the factors that constrain it. That future is referred to as the City's "economic vision" or "economic development objectives."¹

For example, the existence of the Portland and Salem metropolitan areas only one-half hour from Woodburn in either direction on I-5 creates opportunities and constraints. Among the opportunities: established industrial sectors looking for developable land; a large and mobile labor supply. Among the constraints: state laws about how much growth a jurisdiction can plan to accommodate, and how.

It would be unrealistic, therefore, for Woodburn to aspire to, and plan for, rivaling Portland or Salem as a regional economic center. But it is not unrealistic for Woodburn to plan for more manufacturing growth, even for types of growth it has not had in the past. That growth is not inevitable. It depends, in part, on economic forces beyond the City's control. But it also depends on things the City can influence: the supply of buildable land, the quality and price of public services, quality of life, and incentives for development.

Thus, a vision for the future economy of Woodburn should be:

- A balance between what the City would like to achieve, and what resources and public support the City can realistically expect to muster in support of that vision
- Consistent with state laws
- Understandable to citizens without technical training or experience with economic development
- Capable of being incorporated into the City's comprehensive plan.

The vision that follows meets those criteria.

¹ In this report, the terms "economic vision" and "economic development objectives" are synonymous.

ECONOMIC VISION (DEVELOPMENT OBJECTIVES)

Woodburn's location near the Portland and Salem metropolitan areas means that it has strong opportunities for growth. Over the next 50 years, the population in the Willamette Valley is expected to almost double. About 80% of that growth is forecasted to occur in the counties from Salem north to Portland. Woodburn is at the center of that area, on I-5. For the Salem-Portland area not to grow substantially, the economy of the U.S. and Northwest would have to have some type of major problem that few economists are now predicting. Thus, the most likely prediction for the Portland-Salem area, and by association for Woodburn, is growth.

The question for Woodburn is how much and what type of population and employment growth does the City want? Even with strong regional growth, a city does have the ability to use public policy to affect both the amount and rate of growth.¹ The Woodburn City Council endorses the following economic vision:²

- Woodburn recognizes its locational advantages (as described in the *Economic Opportunity Analysis*) and believes it is in its interest to encourage economic development and growth in the City.
- Woodburn does not want to be a bedroom community, with a large share of its residents commuting to jobs in the Portland or Salem areas. It wants to provide opportunities for its residents to work at good jobs in Woodburn.
- To that end, Woodburn wants existing businesses to grow and new businesses to locate in the City that will provide higher-wage jobs for existing and future Woodburn residents. Creating high-wage jobs in Woodburn will help reduce commuting distance and stress, and generate tax revenue to help reduce burdens on schools and other social services. High-wage jobs will help Woodburn attract new residents with disposable time and income to contribute to their family and community.
- The Economic Opportunities Analysis identified target industries—ones that could create high-wage jobs in Woodburn while also being compatible with other City goals stated in the Comprehensive Plan. The purpose of identifying these industries was to draw general conclusions about the site needs of businesses in industries with higher-wage jobs. It is not the City's desire to limit

¹ This point is no less true despite the fact that the State requires counties and cities to agree on local population forecasts that when summed for all jurisdiction in a county add to the State's forecast for a county. Local policies can cause actual growth to be higher or lower than the official forecasts.

² The first draft of these objectives were derived from a review of adopted policy and comments by the City Council in work sessions and public meetings in May 2001. By adopting this document, the City Council officially adopts these objectives for economic development.

itself to, or focus its policies on, the recruitment of businesses in these specific industries. Other industries that meet the City's multiple objectives for economic development are also welcome.

- New businesses will need, among other things, developable land, good services and transportation, social and cultural amenities, and an educated and skilled labor force. The City expects to take actions to make sure those things are provided at competitive prices.
- Woodburn wants to maintain and increase the livability of its community as it grows. To that end, the City wants to be strategic about any economic incentives it gives to businesses, ensuring that it has the financial resources to maintain the quality of its facilities and services.
- Woodburn wants to provide a range of housing for all household types, and wants to ensure that new housing opportunities are available for households with members employed by the desired new higher-wage jobs in Woodburn.

This chapter builds from the vision described in Chapter 2 and the conditions described in the Economic Opportunities Analysis to identify and evaluate six major economic development issues facing Woodburn:

- **Land Use:** buildable land, housing, and urban renewal
- **Public infrastructure and services:** transportation, water and sewer service, quality of life
- **Workforce:** education and training
- **Business development:** recruitment and retention
- **Finance**
- **Coordination**

For each issue this chapter describes (1) current conditions, (2) how current conditions may affect future economic development in Woodburn, (3) existing City goals and policies, and (4) the types of policies the City could adopt to help it achieve its vision for economic development. Thus, this chapter is an overview of issues and potential policies. Chapter 4 builds on the evaluation in this chapter to recommend economic development policies and other potential changes to Woodburn's *Comprehensive Plan* related to economic development.

LAND USE

BUILDABLE LAND

The *Woodburn Buildable Lands and Urbanization Project*¹ found that Woodburn is expected to have an overall deficit of 205 acres of buildable land over the 1999–2020 period. Estimates by comprehensive plan designation show a 195-acre surplus for low-density residential land, supply equal to demand for commercial and high-density residential land, and a deficit of 332 acres for industrial land over the twenty-year period. An inventory of buildable parcels (which assume that adjacent tax lots can be assembled into larger parcels) shows that Woodburn has no vacant industrial tax lots over 15 acres and no aggregates of adjacent tax lots that exceed 35 acres total. The configuration and size of buildable industrial sites in Woodburn is not a good match for the needs of target industries. The Economic Opportunities Analysis reported that very large manufacturing and high-tech firms want sites as large as 40–80+ acres, campus research and development (R&D) and smaller manufacturing sites require 20–40 acres, and smaller light industrial/office sites require 4–20 acres. Buildable industrial lots in

¹ McKeever/Morris Inc., W&H Pacific, E.D. Hovee & Company, Gabriele Development Services, and Manda Beckett Design. 2000. *Woodburn Buildable Lands and Urbanization Project*. Final report issued February 7.

Woodburn will only meet the need of smaller, light-industrial and office sites. Sites for campus research and development (R&D) and smaller manufacturing firms can only be provided by assembling tax lots under different ownership, and there are no sites available for large-lot industrial firms.

Using data from the *Buildable Lands Study*, the Economic Opportunities Analysis identified three potential sites in Woodburn that meet these criteria. All of the sites have street access and can be serviced with water and sewer. Further analysis, however, revealed that one of the sites was under development in the Spring of 2001, and that the other two are relatively distant from Interstate 5 and are not particularly well-suited sites to accommodate target industries.

The small number of available sites will limit the choices available for firms looking to locate in Woodburn and increases the chances that sites will not be available in the market—for the types of business that the City Council has decided it wants to attract, and that the Economic Opportunities Analysis says it would have a reasonable chance of attracting (given its other characteristics) if vacant industrially-zoned land were available in the greater amounts and better locations. Moreover, interviews ECO conducted with developers and economic development specialists suggest that Woodburn presently has an inadequate industrial land base to attract target or related industries. In summary, the industrial land base is insufficient to meet the City's economic development vision. Woodburn's *Comprehensive Plan* states that "the City should encourage that ...enough industrial is available for industrial growth to accommodate the residential growth expected in the City" (policy C-1, p. 49). The *Comprehensive Plan* does not contain any actions or policies to address the projected deficit of industrial land in Woodburn over the 1999–2020 period.

The recommended alternative of the *Woodburn Buildable Lands and Urbanization Project* contains several actions that would increase the supply of buildable industrial land. Application of a Mixed-Use Campus (MUC) zoning designation to parcels now zoned for residential, commercial, and industrial development would add 33 industrial acres, assuming development on MUC land would be 50% industrial. Expansion of the UGB in four areas would add 208 industrial acres to Woodburn's inventory of buildable land. Even with these changes, however, the *Buildable Lands and Urbanization Project* finds that Woodburn would still have a deficit of 88 acres of industrial land over the 1999–2020 period.

In addition to the actions in the recommended alternative of the *Woodburn Buildable Lands and Urbanization Project*, the City could address the forecast deficit of industrial land by (1) designating some of its vacant residential land supply (which is estimated to be greater than what is needed to accommodate the 20-year housing forecast) for industrial development or making additional expansions of the UGB. Designating commercial land for industrial development is also an option, but it would lead to a deficit of commercial land over the forecast period. Given the general desirability of

aggregating, or at least buffering, residential and industrial uses and of providing industrial sites with adequate road and rail access, expanding the UGB has advantages as a way of increasing the supply of industrial sites in Woodburn.

Expanding the UGB will require detailed analysis to comply with statewide planning goals and statutory requirements. If the City chooses to pursue this option, it should review the assumptions made in the draft *Buildable Lands Study*. Specifically, the City should review the population and employment forecasts that are the basis of estimating land needs. A revised employment forecast should reflect judgments about how the City's economic development strategies will affect the employment base. The revised employment forecast will then drive need for commercial and industrial land. The housing needs analysis should be updated to reflect implied changes in the wage distribution. The Transportation System Plan should be updated to reflect these changes. Finally, all of this analysis should be coordinated and reflect how the revised assumptions impact other aspects of the City's plans and policies.

HOUSING

The Economic Opportunities Analysis reported the results of the Oregon Department of Housing and Community Services (HCS) model. It suggests a substantial number of lower cost units will be needed in Woodburn. For example, 1,067 dwelling units, or 45% of the City's total estimated housing need, will be needed for households with incomes under \$20,000. Economic development strategies pursued by the City could change the distribution of housing need. For example, successfully recruiting a high-wage manufacturing plant could create additional need for owner-occupied dwelling units in the \$187,000 and over category.

Providing an adequate mix of housing types and prices is important to attract firms to Woodburn and to achieve a balance of jobs and housing. Without the right housing mix, firms that want to expand or locate in Woodburn may need to rely more heavily on workers who reside outside of Woodburn, or these firms may decide to expand or locate elsewhere.

The need for a mix of housing that corresponds to the income generated by existing and potential jobs is important across the income range—affordable housing for low-income workers and high-quality housing for well-paid executives. Providing adequate housing for highly-paid executives appears to be important for attracting corporate offices. In discussing the suburbanization of corporate headquarters, Joel Garreau states that "there is probably no more important law of Edge City location than this: Whenever a company moves its headquarters, the commute of the chief executive officer always becomes shorter."¹

¹ Joel Garreau. 1991. *Edge City: Life on the New Frontier*. New York: Doubleday.

Woodburn's Comprehensive Plan states that the City's goal "is to insure that adequate housing for all sectors of the community is provided" (G-1, p. 52) and that the "City will insure that sufficient land is made available to accommodate the growth of the City" (G-1-1, p. 52). It is the policy of the City "to encourage a variety of housing types to accommodate the demands of the local housing market" (G-1-2, p. 53) and to "accept its regional share of low income housing" (G-1-4, p. 53).

The City's housing needs analysis should be updated based on revised population and employment forecasts and assumptions about how the City's economic development strategies will affect the local wage structure, households' ability to afford housing, and the local housing market.

URBAN RENEWAL

The City of Woodburn wants to revitalize its downtown. The Economic Opportunities Analysis did not directly address the existing conditions in downtown Woodburn or identify specific problems to be addressed.¹ In general, Woodburn has a traditional main street downtown commercial district on Front Street and 1st Street, adjacent to the Union Pacific Railroad tracks. Most of the structures in downtown Woodburn are several decades old and some may be designated as historic structures. Many of these buildings are underutilized or vacant, and many are in need of repair or rehabilitation.

The Economic Opportunities Analysis pointed out that one of Woodburn's comparative advantage is a small-town atmosphere with proximity to urban amenities. Downtown Woodburn and the surrounding older neighborhoods are the key to this small-town atmosphere, so maintaining and enhancing downtown Woodburn is important for maintaining this comparative advantage.

In addition to downtown, Woodburn has two other major commercial districts that may be candidates for urban renewal efforts: the area east of the I-5/Hwy 214 interchange and the Hwy. 99 E strip. Both of these commercial districts are major entrances to Woodburn and thus create much of the city's image for visitors.

Woodburn's *Comprehensive Plan* contains Downtown Design and Conservation District (DDCD) goals and policies that seek to maintain and enhance downtown's role in Woodburn (section P, p. 69). These goals and policies seek to support rehabilitation of buildings, improve landscaping and pedestrian amenities, improve the circulation pattern, and attract businesses downtown. Woodburn's *Comprehensive Plan* does not appear to have any goals and policies that specifically address rehabilitation and improvement of other business districts in the city.

¹ The City is conducting that analysis as part of a separate study.

To revitalize downtown Woodburn while maintaining its traditional small-town character, it is important that City policies seek to maintain as many old and historic buildings as possible, and to ensure that any new construction fits the style and scale of existing structures. To this end, City policies should emphasize rehabilitation and reuse of existing structures. The City should also seek to maintain downtown's status as a civic and cultural center of Woodburn by keeping government offices and the library downtown and by encouraging cultural activities that will attract people to downtown.

In other commercial districts, City policies should seek to improve Woodburn's image to people visiting or passing through the city. Potential improvements include the provision of sidewalks and pedestrian amenities, planting street trees and other landscaping, relocating utility poles away from the street right-of-way or putting utilities underground, consolidating access points, and better signage to downtown, parks, schools, and other amenities in Woodburn.

PUBLIC INFRASTRUCTURE AND SERVICES

TRANSPORTATION

Transportation analyses have found that the single interchange at I-5 at Highway 214 serving Woodburn is inadequate in its current configuration to serve the forecasted future development in Woodburn. They have identified needed improvements to major highway corridors and key intersections in Woodburn. I-5 access, congestion, and overall accessibility, is expected to get worse.

Transportation access and mobility are critical for economic development: because firms rely on transportation infrastructure for access to customers and workers, and to ship and receive goods. Improving transportation conditions in Woodburn will improve the City's ability to retain existing firms and to attract new ones.

Transportation goals and policies in Woodburn's *Comprehensive Plan* seek to develop a safe, effective, and efficient transportation system. These goals and policies are generally supportive of making the transportation improvements needed for economic development in Woodburn.

The I-5 interchange is Woodburn's biggest transportation problem. In concept, if one accepts (as Woodburn does) that the City will grow and traffic at the interchange will grow with it, then there are two construction solutions to the congestion at the interchange: (1) re-build the existing interchange to increase its capacity, or (2) build a new (second) interchange. ODOT has stated that there is little chance that a second interchange will be constructed in the next twenty years. The City Council accepts this limitation, at least for now. The City may seek to pursue a second interchange if conditions change to allow construction earlier than currently anticipated. To preserve this opportunity, Woodburn's *Comprehensive Plan* should state the City's desire for a second interchange. The transportation

element of Woodburn's *Comprehensive Plan* will also need to be modified to reflect specific improvements recommended in subsequent transportation plans.

WATER AND SEWER SERVICE

Vacant land must have water and sewer service available for development to occur. Target industries may have special needs.

According to City staff, no water or sewer capacity constraints exist at this time that would preclude development of lands designated for commercial and industrial uses. Moreover, staff indicated that there are no areas in the City that cannot be serviced with water and sewer. In the long term, the City will need to drill new wells to provide an adequate supply of water. Staff indicated that the City has sufficient water rights at this time to accommodate forecast population and employment growth.

Development of some larger parcels in the southern areas of Woodburn and land currently outside of the UGB will require service extensions that will increase development costs at these sites. The City has planned ahead for development in some areas. For example, when the City extended Woodland road on the west side of I-5, it also extended a sewer line with sufficient capacity to accommodate additional development in that area.

The City is in the process of completing a stormwater management plan that will include new development standards. Staff indicated that any new development will probably be required to construct detention ponds to reduce flow rate to pre-development condition, and to provide pre-treatment oil/water or vein type separator to reduce oils or biological oxygen demand (BOD). This requirement will increase the amount of land needed to accommodate development.

The availability of water and sewer service is generally supportive of economic development in Woodburn. The availability of water and sewer service is not a constraint on development in other Willamette Valley communities, even for high-use facilities such as silicon chip fabrication plants, so this is not a significant competitive advantage for Woodburn. Goals and policies related to the provision of water and sewer service in Woodburn's *Comprehensive Plan* are generally supportive of providing adequate service to accommodate projected growth while protecting the environment. Growth and Urbanization goals in Woodburn's *Comprehensive Plan* have several provisions that link growth and the provision of public services. These goals seek to:

- Provide a consistent level of public services and facilities in all parts of Woodburn by requiring new development to support and maintain services and facilities at a level equal to or exceeding the level in the rest of Woodburn (L-2, p. 61).

maintain City boundaries that support efficient delivery of public services (L-3, p. 61).

- Limit the amount of vacant land within the City for optimum use of public service and utility capacity (L-4, p. 62).
- Insure that growth is orderly and efficient, phasing needed public services in accordance with the expected rate of growth (M-1, p. 64).
- Insure that the City's growth does not exceed its ability to provide public services through adoption of a growth control ordinance. When and if a growth control ordinance is used, the City shall reexamine the public facilities plan and determine at that time if it is in the public interest to expand facilities to accommodate the additional growth (M-2, p. 65).
- Pay for public facility construction through systems development charges from anticipated growth, and to take measures to stimulate growth only under extreme conditions (M-3, p. 65).
- Forbid the extension of sewer and water facilities beyond the city limits, except as agreed to in writing by the City and County (M-10, p. 66).
- Base conversion of land to urban uses in part on consideration of orderly and economic provision for public facilities and services and the availability of sufficient land to insure choices in the market (M-11, p. 66).

While these goals are generally supportive of economic development in Woodburn, the City may want to modify these goals to increase its flexibility and potential for attracting firms that meet its economic development vision. To achieve its economic development vision, the City may need to expand its UGB and extend public services to create potential development sites for commercial or industrial uses. This process may require the City to extend water and sewer service to vacant areas in advance of development, which will require funding in advance of systems development charges revenue. And development sites with the characteristics desired by firms may not be immediately adjacent to the City's existing UGB, requiring a development pattern that is not as orderly or compact as implied by the City's goals. In this context, the City may want to relax its existing goals regarding phasing of public services, funding of public services from systems development charges, limiting the amount of vacant land in order to optimize use of public facilities, and maintaining boundaries for efficient provision of public services.

QUALITY OF LIFE

The City's provision of public infrastructure and services can affect the quality of life in Woodburn as perceived by existing and potential residents.

All of the aspects of public services identified in this chapter have an effect on quality of life in Woodburn; other public services that can effect quality of life include parks and recreation, environmental protection, police, fire, and library services. The quality of local schools has a significant impact on quality of life, but the City only indirectly influences the provision of public education in Woodburn.

The Economic Opportunities Analysis found that a primary comparative advantage for Woodburn is its small-town atmosphere coupled with its access to jobs and urban amenities in Portland and Salem. Maintaining that small-town atmosphere as the city grows will be a challenge for Woodburn. The Economic Opportunities Analysis did not identify any problems with the provision of public services that affect quality of life in Woodburn. It appears that the provision of public services in Woodburn relative to other Willamette Valley communities is not substantially different enough to raise obvious economic development issues. Complicating this issue is the fact that quality of life is subjective, so that the characteristics that affect perceptions of quality of life vary widely between different households and firms.

The City's goals and policies in the Comprehensive Plan seek to protect and enhance the natural and cultural resources in Woodburn, and to ensure adequate and efficient provision of public services in Woodburn. These policies will allow the City to take actions to maintain and enhance quality of life in Woodburn.

Public and private investments contribute to quality of life. In addition to the efficient delivery of public services such as parks and fire protection, the public sector may also fund libraries, museums, performing arts centers, conference centers, and similar facilities. The City of Woodburn currently has a nice library in downtown—the City should evaluate the adequacy of this service on a periodic basis. Research and contacts for this project did not identify a need for additional cultural or social facilities in Woodburn, because they are not particularly important considerations for businesses choosing a location. Also, these facilities typically operate at a loss and thus require a subsidy for operation and construction. Woodburn's proximity to the Portland area allows Woodburn residents to easily take advantage of the social and cultural opportunities in Portland. The City should continue to support and take advantage of opportunities to develop of social and cultural amenities in Woodburn, and seek input from residents on the need for additional amenities in order to maintain quality of life.

Private investments that contribute to quality of life include restaurants, theaters, shopping opportunities, and recreational facilities. The City can support development of these amenities through efficient permitting and delivery of public services. Other measures the City takes for economic development, such as an urban renewal district, can be used to encourage the type of private investment the City wants to enhance quality of life in Woodburn.

Data in Economic Opportunities Analysis indicates low level of educational attainment in Woodburn, which suggests that the workforce in Woodburn may not have the skills needed by firms with high-wage jobs. This may make Woodburn less attractive to firms looking for a location. While firms in Woodburn are not necessarily dependent on local workforce because they can attract workers from the Portland and Salem areas, improving the skills of the local workforce would make Woodburn more attractive as a business location.

Workforce development has benefits beyond attracting firms. By improving the skills of local residents, education can help them find higher-paying jobs and may spur more residents to form their own businesses.

Woodburn's *Comprehensive Plan* does not have any goals or policies directly related to workforce development. Potential policies to improve workforce skills in Woodburn include:

- Supporting educational institutions to improve the availability of work skills training in Woodburn, including Woodburn Public Schools and Chemeketa Community College.
- Encouraging collaboration between employers or potential employers and educational institutions to improve work skills education in Woodburn.
- Improving access for Woodburn residents to training programs in the Portland and Salem areas.
- Work with educational institutions to develop industry-specific workforce training as an incentive to attract firms to Woodburn.

The Woodburn Campus of Chemeketa Community College (CCC) is the center of workforce training and career development services in Woodburn. CCC has partnered with the Oregon Employment Department to create the Woodburn Job and Career Center, a "one stop center" to help job seekers find available jobs and receive training to enhance their job skills. Through the Mid-Willamette Workforce Network, the Woodburn Job and Career Center can connect people in Woodburn with job openings and training opportunities in Western Oregon and nationwide for specialized occupations. The Job and Career Center also sponsors training workshops in Woodburn, and will bring specialized training workshops to Woodburn if there is enough interest. The Job and Career Center can also work with employers to screen and train potential employees, as they did for the Woodburn Outlet Mall.

The Woodburn Campus also offers services to support small business owners through training programs, mentorships, and information on other available resources such as Small Business Administration loans. The College, Employment Department, Chamber of Commerce, and City of

Woodburn also collaborate on a Business Development Team to support existing businesses and attract businesses to Woodburn.*

The Mid-Willamette Valley Education Consortium, which includes the Regional Chamber Education Alliance, is working to implement a Certificate of Employability in public schools, establish a leadership program in Woodburn High School, and develop school-to-work programs to give students real-life work experience.

BUSINESS DEVELOPMENT

Business development strategies includes efforts to recruit new firms to Woodburn, to improve and expand existing businesses to Woodburn, and to encourage the formation of new businesses in Woodburn.

RECRUITMENT STRATEGIES

Business recruitment programs attempt to attract new businesses to a community by offering incentives, by making investments in the area's workforce and/or infrastructure, or by marketing the area's strengths. Effective business recruitment can create new jobs, increase tax revenues, and help to diversify the local economy. Business recruitment programs have become so common around the country that many people think they are synonymous with economic development.*

The City of Woodburn currently does not offer any direct or indirect financial incentives to attract prospective firms that meet the City's economic development vision.

Considerable research has been conducted on the effectiveness of local incentive programs to attract firms to a community. This research shows that the location decisions of firms are based on many factors, only some of which could be influenced by local government, and that the standard tools of recruitment (marketing and tax breaks) are not among the most critical variables for most firms. Rather, their decisions often had more to do with the fundamental characteristics of a region: its access to markets and factors of production; the quality of its labor force; the quality, cost, and stability of its public infrastructure; and the quality of life it afforded to its employees (especially top executives, who were influencing the location decision).[•] This research suggested a shift in focus from short-term recruitment deals to long-

* The Woodburn Business Development Team was in its inception at the time this report was completed. The effectiveness of the Team is untested at this point. The City should monitor and evaluate the Business Development Team over the next several years to gauge its effectiveness.

* Schweke, William, Brian Dabson, and Carl Rist. 1996. *Improving Your Business Climate: A Guide to Smarter Public Investments In Economic Development*. Washington, D.C.: Corporation for Enterprise Development.

* Schmenner, Roger. 1978. *The Manufacturing Location Decision: Evidence from Cincinnati and New England*. Washington, D.C.: U.S. Economic Development Administration. March.

with investments in public facilities and services. In that long view, however, must be concretely implemented by specific, short-run actions.

However, business recruitment strategies have posed several problems for local jurisdictions. First, many of the tax incentive packages have ended up costing jurisdictions more than the benefits gained by attracting the targeted business. In addition, if a jurisdiction's workforce does not match the needs of the new business, then the jobs created by that business will be held by residents of other communities. Finally, business recruitment is, by necessity, something of a zero sum game—one jurisdiction's gain is another's loss.

Fiscal constraints have increased the emphasis on getting public-private partnerships—large incentives are becoming less common. Government is trying to reinvent itself in the image of the private sector. It is focusing on the business of government, on doing efficiently the things that there is a consensus that government should do: infrastructure, education, and services that create an environment in which businesses can work efficiently (public safety, efficient regulation, social services). An implication of this shift is that government should treat economic development policies as investment decisions by considering the return to the community and the opportunity costs of each investment (i.e., the other investments that cannot be made because the resources are being used for this one). The focus has shifted from trying to hit a home run with a single big deal to hitting many singles in targeted areas—a shift toward diversification.

Provided that local jurisdictions offer incentive packages with a cost roughly equivalent to the potential benefits—business attraction can be a good way to diversify the local economy and enhance an area's business mix. In marketing themselves to businesses seeking to move, local governments can focus on the following set of items:

- Making appropriate investments in infrastructure.
- Creating readily available development sites.
- Providing an efficient permitting process.
- Helping create a well-trained and available workforce, and offering assistance with hiring and training workers.
- Providing consolidated information about loans and other assistance programs available through the City and other agencies.
- Creating a perception of high quality of life.
- Effective marketing to prospective businesses.

A key element of business recruiting is to have one person who is the sole point of contact for information and the range of public services needed by prospective firms. This point person should report to the City Manager and have enough influence to get other City departments on board to deliver the permits and public services prospective firms will need to develop sites in Woodburn. This contact person should project a positive, business friendly

attitude, and all discussions among City departments should take place away from the client.

ASSISTANCE FOR EXISTING BUSINESSES

There are a range of potential activities to assist existing businesses, including mentoring for small business owners, classes to improve management skills, assistance with obtaining SBA loans and other assistance, and providing low-interest loans.

Small firms are typically run by overworked owner/managers who find it difficult to read all of the trade journals or do research on new production methods or managerial techniques. These businesses run the risk of being left behind by innovations in their field, or being surpassed by a more agile, often newer competitor located somewhere else.

A number of modernization programs have been launched to help small businesses revitalize themselves. The United States Department of Commerce has funded over 50 Manufacturing Extension Partnerships, including one in Oregon.⁷ This organization, and others like it, function by offering diagnostic assessment at small businesses, examining both production processes and management systems. Recommendations for improvement are then made that might include ideas for better maintenance, better use of statistical process control, a new set of personnel policies, or training to enable staff to understand and improve use of accounting data. Further specialized consulting might be recommended, along with a list of consultants who do the type of work required.

To be effective, these programs must include public and private providers and address the pressing need for businesses to modernize and to upgrade their technologies so they can be more competitive.⁸ A key strategy here is the creation of a revolving loan fund. Many businesses have difficulty getting loans for furnishings, fixtures, and equipment. Banks are reluctant to give loans for these purchases because the loans are not backed by collateral, unlike loans for land or buildings. This makes it difficult for businesses to expand or make investments to improve productivity. To implement a revolving loan fund, cities typically partner with local banks, who have the experience necessary to process the loans.

FOSTERING CREATION OF NEW BUSINESSES

Entrepreneurs hoping to start a new business also need assistance with developing a business plan, securing working capital, obtaining basic government services, finding a business location, hiring and training staff, and producing and marketing products.

⁷ The Oregon Manufacturing Extension Partnership web site can be viewed at <http://www.omep.org>

⁸ Schweke op. cit.

The City of Woodburn currently does not have any goals or policies that seek to assist entrepreneurs in starting new businesses. Prospective business owners can receive assistance through entrepreneurs' training programs offered through Chemeketa Community College. However, there is no central resource in Woodburn for small business people where a prospective business owner can easily investigate the full range of programs available through State and Federal government agencies or other organizations.

One means of providing support to a new business is to create an "incubator" where businesses are grouped with other start-up firms. Incubators are typically housed in flexible office/light manufacturing space. Incubators nurture young firms, helping them to survive and grow during the startup period when they are most vulnerable. Incubators provide hands-on management assistance, access to financing and orchestrated exposure to critical business or technical support services. They also offer shared office services, access to equipment, flexible leases and expandable space—all under one roof. A key determinant of success in business incubators around the country is the opportunity an incubator provides for networking among tenants and mentoring by an incubator director. Where effective networking and mentoring happen, an incubator and its tenants generally succeed.

This strategy should be coordinated with land use and other strategies. For example, if the City establishes an Urban Renewal District, zoning and related land use regulations within the District should consider incubator businesses and be flexible enough to allow office and light manufacturing uses. Moreover, the City may want to consider hiring an economic development specialist to coordinate this and other strategies.

FINANCE

Financing economic development programs is an issue that cuts across all others. Typical local financing mechanisms include:

- Property tax.
- Urban Renewal Districts that dedicate a portion of property tax revenue to improvements in the district.
- System Development Charges (SDCs).
- Transient occupancy tax on overnight stays in hotels and motels.
- Bonds backed by property tax, SDCs, or other stable revenue sources.

Potential regional and state funding sources include:

- Grants & programs through the Oregon Economic and Community Development Department.

- ODOT funding for transportation improvements through the Statewide Transportation Improvement Program (STIP) and Immediate Opportunity Fund.
- Federal funding for grants and loans to businesses through the Small Business Administration.

"Life cycle" funding of public infrastructure is important to ensure that the City not only makes adequate capital improvements, but has enough money to operate and maintain those improvements at City standards. At this time, City policy is to set systems development charges (SDCs) at 100% cost recovery and tries to review the fees on an annual basis.

COORDINATION

The City of Woodburn should seek to coordinate its economic development efforts with other agencies and organizations with a role in economic development. There are many organizations that can play a role in economic development in Woodburn. By coordinating with these organizations, the City can use their resources to create a cost-effective economic development program while avoiding duplication of efforts. Other organizations that may play a role in economic development in Woodburn include:

- Marion County
- The Mid-Willamette Valley Council of Governments
- Oregon Economic and Community Development Department
- Oregon Employment Department
- Oregon Department of Transportation
- Chemeketa Community College
- Woodburn Public Schools
- Salem Economic Development Corporation
- Oregon Manufacturing Extension Partnership
- Woodburn Chamber of Commerce
- Mid-Willamette Workforce Network
- Mid-Willamette Education Consortium

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Recommended Goals and Strategies

Chapter 4

This chapter is organized according to the same issues described in the previous chapters. For each issue it describes some general goals (what the City wants to do to address the issue) and some specific actions. For each action, it describes:

What and Why? What does the action do, and why does the City want to do it?

When? When should the action happen? To keep the analysis simple, the possible categories are: Year 1, Year 2-3, and Year 4-5. Indirectly, the answer to "When?" is also an answer to "How important?" and "In what order?"

Who? What City department or public agency is responsible for or needs to be involved to get the action completed?

How much? How much City staff and Council time is this likely to take. The amount of time can usually be directly converted to a budget. For capital improvements, a rough estimate of cost is also included.

How will we know we succeeded? What measurable target can we set (e.g., something specific achieved by some date) that will indicate that we have been successful?

What else? Are there any other policies that go with this? Other advice on implementation?

The goals and strategies are identified with a letter and number system that is unique to this document—these signifiers do not correspond to those used in Woodburn's Comprehensive Plan. The various goals and strategies are organized consistent with the issues described in Chapter 3. Moreover, the goals and strategies are organized to complement the key elements of the City's Comprehensive Plan (e.g., Land Use, Transportation, etc.). The letters correspond to the category (L for Land Use, I for Infrastructure, etc.); Goals are at the first level (L.1, L.2, etc.) and Strategies are at the next level (L.1.1, L.1.2, etc.).

LAND USE

Woodburn wants higher wage jobs. The key land use issue is where those jobs will be located. Woodburn has some modest opportunities for expanded employment in downtown. The Economic Opportunities Analysis concluded, however, that the types of higher-wage industries the City wants to attract would prefer to be in industrial parks or on larger industrial parcels. The City's location on I-5 between Portland and Salem suggests it could attract such businesses if it had land of a size, location, and zoning needed.

Moreover, those new jobs will create demand for housing. The population of Woodburn is now disproportionately in low-income households relative to other cities in the region. New firms with higher-wage jobs will consider the availability of higher-value housing for its more highly compensated employees. Statewide planning Goal 10 requires communities to adopt policies to provide housing for households at all income levels. If the City wants to attract high-wage jobs, it needs to have a set of housing policies that are consistent with that vision.

GOAL L1. PROVIDE DEVELOPABLE LAND NECESSARY TO ACCOMMODATE DESIRED FIRMS

L1.1. COMPLETE DEVELOPMENT CODE REVISIONS INCLUDING DESIGN GUIDELINES FOR THE MIXED-USE CAMPUS ZONING THAT ALLOW OR ENCOURAGE HIGHER DENSITIES

What and Why? The recently completed *Buildable Lands Study* made a number of recommendations for improving land use efficiency in Woodburn. One of the recommendations was to develop and adopt a mixed-use campus zoning district. The new district may need to be accompanied by a new plan designation.

At the time this report was completed, the City was in the process of developing the code revisions. This strategy will result in completed code revisions that will establish a mixed-use campus zoning district. The revisions should include design criteria that encourage higher-intensity development, or innovative development approaches.

The key premise of this policy is to make more land available with flexible development standards. The *Buildable Lands Study* identified a deficit of commercial and industrial lands. Providing flexible development standards can address need for both types of land.

When? By July 2002.

Who? City staff, review by Planning Commission and Council.

How much? 80 hours of staff time over a 12-month period.

How will we know we succeeded? Amendment of the comprehensive plan and zoning code to include a mix-use campus plan designation and zoning district. Adoption by City Council and acknowledgement by LCDC.

L1.2. EVALUATE POTENTIAL FOR RE-DESIGNATION OF SOME RESIDENTIAL ZONES FOR COMMERCIAL AND INDUSTRIAL DEVELOPMENT

What and Why? Evaluate present plan designations to identify lands that could be reclassified to allow commercial, industrial, or mixed-use campus development. This evaluation should consider proximity to other land uses, transportation, and serviceabi

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the reclassification of appropriate sites, with restrictions or incentives that encourage and protect the land for higher-wage industries.

The *Buildable Lands Study* identified a deficit of commercial and industrial lands. Reclassifying lands is one strategy to increase the availability of commercial and industrial sites. Areas (which may include one or more tax lots) considered for reclassification should be at least 10 acres.

This strategy should also include a review of the City's employment forecast and the land need estimates presented in the Draft *Buildable Lands Study*. The employment forecasts should be at the sector level, so that land needs can be based on evaluation of typical densities observed in various industrial sectors.

The City should be careful to ensure that adequate residential lands are retained through this process.

When? July-July 2002.

Who? City staff.

How much? 100 hours over a 12-month period.

How will we know we succeeded? Adoption of an amended plan designation map.

L1.3. EXPAND THE URBAN GROWTH BOUNDARY IF NEEDED

What and Why? The *Woodburn Economic Opportunities Analysis* concluded that buildable land for the types of industries that the City wants to attract is probably inadequate in size and location. One solution is to bring land into the Urban Growth Boundary (UGB) that is closer to I-5 and the interchange. The primary focus would be to add lands with the site characteristics described in the *Woodburn Economic Opportunities Analysis*. Depending, however, on the outcome of Strategy 2 above, the City may also need to consider adding residential lands to the UGB.

Expanding a city's UGB is complicated and time-consuming. The City must complete a UGB expansion analysis consistent with Goal 14 requirements. Agricultural lands surround Woodburn, a factor that will complicate both the required analysis, and the process. For Woodburn, the analysis must also include evaluation of "new measures" to increase the density and needed mix of housing (ORS 197.296(5)).

This strategy should include the following steps:

1. Review the City's coordinated population forecast. Actions the City takes to support economic development may lead to population and employment growth beyond that previously forecasted.
2. Review the employment forecast used in the Transportation Systems Plan (TSP). A revised employment forecast has implications for the TSP and housing.

3. Disaggregate the employment forecast to the sector level. This will allow better evaluation of the land needs of various industrial sectors.
4. Review commercial and industrial land need estimates presented in the *Buildable Lands Study*. If a revised employment forecast is generated, develop revised land needs estimates using employee-per-acre assumptions at the sector level.
5. Revise the housing needs analysis. If the City's economic development strategy is successful, it will change the wage structure and impact housing needs. Assumptions about a revised household income distribution can be input in the OHCS housing needs model to develop an alternative need estimate. The City should also re-run the model using Census data on the distribution of rental rates and owner values to develop an estimate of unmet housing needs. This analysis will identify areas where additional housing need exists. The residential land needs estimates should also be revised during this step.
6. Review land use options. Using the revised residential and employment land need estimates, the City should evaluate potential measures to address those needs. Potential measures should include policies that seek to increase densities. The City should conduct a thorough analysis of potential UGB expansion areas considering transportation, overall land needs, and the site requirements of target industries.
7. Conduct Goal 14 analysis. This is the culmination of the previous six steps and should result in an analysis that addresses all state requirements for a UGB expansion.

The specific issues and steps in the UGB expansion process are described in detail in Appendix A. The process requires completion (or update) of a buildable lands study, evaluation of measures that will make more efficient use of vacant land within the UGB, and evaluation of lands around the UGB for consistency with Goal 14 criteria for expansion of UGBs.

When? By December 2003.

Who? City staff, consultants, land use attorney, engineer.

How much? 250-350 hours of staff time over an 30-month period;
\$100,000-\$200,000 in consultant and attorney fees.

How will we know we succeeded? Expanded UGB to include suitable commercial and industrial sites, and possibly more residential land.

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L1.7. RESEARCH AND DEVELOP POLICIES THAT PROTECT SOME LAND FOR DEVELOPMENT TO SUPPORT HIGH-WAGE INDUSTRIES

What and Why? An important part of the City's economic development vision is to attract high-wage industries to Woodburn. Those industries may require industrial or office sites. The City wants to ensure that sites that meet the locational criteria of high-wage industries the City wants to attract do not get purchased and developed by lower wage industries.

A reasonable response to this concern is a policy that restricts the development of sites to industries that pay wages above the City's target threshold. Development of such a policy is complicated; it needs to strike a balance between the City's interest in attracting high-wage employment, and the development rights of property owners. It also needs to consider the fact that lower-wage industries will also want to locate or expand in Woodburn, and that higher-wage industries will create demand for lower-wage service employment. Thus, applying this policy to all lands designated for commercial or industrial use would probably be unreasonable. Alternatively, if the City does expand the UGB, land brought into the UGB will increase substantially in value: some requirements for development could be exacted as part of this process.

The process of developing this policy needs to consider several key factors: (1) a wage threshold; (2) what sites it will apply to; (3) how it is implemented (overlay zone, special restrictions on certain zoning districts, etc).

When? July - July 2002. This policy needs to be developed and adopted prior to, or concurrent with land redesignation or a UGB expansion.

Who? City Planning Staff.

How much? 100 hours over a 12-month period.

How will we know we succeeded? Adoption of a policy that restricts siting of low-wage industries on target sites.

GOAL L2. PROVIDE LAND FOR ALL TYPES OF NEEDED HOUSING

L2.1. REVIEW HOUSING ANALYSIS IN THE LIGHT OF ECONOMIC DEVELOPMENT STRATEGY AND REDESIGNATE LAND AS NECESSARY

What and Why? Goal 10 requires communities to provide "needed" housing types affordable to all households in Oregon. An economic development strategy that attracts higher-wage jobs will probably require a different housing mix than what has recently occurred in Woodburn. Moreover, housing must be an important component in the City's economic development strategy. If the types of housing desired by firms that may locate in Woodburn are unavailable or cannot be built, it will make Woodburn less competitive.

The City's Goal 10 housing analysis should reflect a wage distribution consistent with the types of industries it hopes to attract. Moreover, the policies and land designations should be consistent with the financial capabilities of the employees of those industries. Review of the Goal 10 housing analysis should follow the steps identified in Strategy L.1.3.

When? July - July 2002.

Who? City Planning Staff.

How much? 100 hours of staff time over a 12-month period.

How will we know we succeeded? Adoption of a revised housing element and related policies.

What else? The housing element is directly related to other land use activities. This strategy needs to coordinate with strategies 1-3 of Land Use Goal 1.

GOAL L3. ADOPT AND IMPLEMENT AN URBAN RENEWAL DISTRICT

What and Why? The downtown area is a key part of the City's overall economic development strategy. A healthy downtown not only benefits local business, but is an amenity that the entire community can enjoy.

The City is considering an urban renewal district that would promote redevelopment downtown and in areas adjacent to downtown. An urban renewal district is a relatively common approach to promoting investment in specific areas of a community. Funds come from tax increment financing, which freezes assessments on all property in the district at some level and then places the increment (the amount of tax revenue above the frozen level) into a fund that is used for improvements within the district. This policy would benefit the downtown area by making new funds available for investments in the area.

When? By September 2001.

Who? City staff.

How much? Costs will be City staff time to prepare information for decisionmakers to evaluate creating a district, and costs of establishing the district. Funding provided by the district will not cost the City anything; it simply dedicates a portion of property tax revenue for expenditures for improvements in the district. However, this will reduce revenue available for other expenditures the City may want to make.

How will we know we succeeded? Formal establishment of an urban renewal district.

What else? The boundaries of the district should be carefully considered. If assessed value rises slowly, few dollars will be available to reinvest in the district. The City may also want to consider adopting a more flexible zoning ordinance for property in the

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district to allow a wider range of uses and to allow property owners to take advantage of more opportunities.

INFRASTRUCTURE AND SERVICES

Public infrastructure and services are the cornerstone of any economic development strategy. If roads, water, sewer, and other public facilities are unavailable or inadequate, industries will have little incentive to locate in a community. For the purpose of this section, we define infrastructure and services to include transportation, water, sewer, stormwater, and parks facilities.

GOAL 11. PROVIDE TRANSPORTATION FACILITIES ADEQUATE TO SERVE LAND NEEDED FOR THE TYPE OF DEVELOPMENT DESCRIBED IN THIS ECONOMIC DEVELOPMENT STRATEGY

11.1. MAKE IMPROVEMENTS TO KEY INTERSECTIONS AND CORRIDORS (EXISTING FACILITIES)

What and Why? The *Woodburn Transportation Systems Plan (TSP)* identifies a number of improvements that will be necessary to accommodate additional employment growth in the City. Key improvements identified in the TSP include reconfiguration of the I-5/214 interchange, and improvements to Highway 214. Specifically, the TSP identifies the following improvements:

- Improvement of the I-5 / Highway 214 interchange or construction of an additional I-5 interchange to serve Woodburn.
- Widening of Highway 214 to four lanes east of I-5 and improvements to the Highway 214 / Boones Ferry Road intersection.

These improvements are essential to Woodburn's economic development strategy; without them, ODOT will probably assert its right to deny developments that will cause its facilities to fail. In addition to the improvements described above, the TSP also targets the 99E corridor for improvements. Specifically, the TSP recommends improved access management on Highway 99E and development of a future two-lane roadway behind the existing businesses on the east of Highway 99E between Highway 211 and Highway 214.

When? Planning for the key interchange and Highway 214 improvements should begin immediately. The actual improvements could take as long as 10 years.

Who? City, ODOT, Marion County.

How much? \$13.5 million for the interchange improvements, \$3 million for improvements to Highway 214'.

How will we know we succeeded? Improvements to the I-5 interchange and Highway 214 will be completed.

What else? The TSP identifies a number of other projects to bring the existing road network up to the City's street standards, to improve circulation, and to improve access to alternative transportation modes. These improvements are all important to the City's economic development strategy.

11.2. DETERMINE NEW TRANSPORTATION FACILITIES NEEDED TO IMPLEMENT ECONOMIC VISION AND AMEND TSP AS APPROPRIATE

What and Why? Good access is essential to the City's economic development strategy. The TSP identifies several new transportation facilities. The key facilities proposed in the TSP include:

- Development of a southside arterial.
- Cooley Road extension to create a new north-south road east of Highway 99E.

In addition, the City may want to consider extending Crosby Road across the railroad tracks to connect with Highway 99E.

Transportation improvements, however, should be coordinated with decisions made in the land use plan. The land use strategies may result in several major changes in land designations. These changes need to be coordinated with transportation improvements. Because decisions about land uses will occur at a later date, it is premature to recommend specific changes to the transportation systems plan and the improvements contained within that plan. In summary, infrastructure and land use decisions need to be coordinated.

Specific issues that this strategy should consider include east/west circulation in Woodburn, connectivity, a northside or southside arterial, and other improvements that support the land use plan. A northside or southside arterial would provide east-west circulation and allow traffic from the east side of Woodburn to access the western side of the I-5/214 interchange without having to use 214 to cross Woodburn.

When? Review of the TSP will need to be a part of a UGB expansion analysis. This evaluation should be completed before July 2003.

Who? City staff, ODOT, Marion County, Transportation Consultant.

¹ The cost estimate for the I-5 interchange are based on a split-diamond configuration. This configuration is probably no longer possible since the development of the WinCo warehouse facility. Cost estimates for the 214 improvements include widening and signal improvements.

Approximately 60 hours of staff time to review TSP; project costs will depend on the specific projects identified in this process. The TSP includes costs for recommended projects, and costs for other projects can be estimated using the unit costs identified in the TSP.

How will we know we succeeded? Adoption of amendments to the TSP that support changes in the land use plan.

What else? The amendments need to be consistent with OAR 660-012. The amendments will also need to support any revisions to the population and employment forecasts, as well as decisions made with respect to redesignation of lands or an expanded UGB.

GOAL 12. PROVIDE WATER, SEWER, AND STORMWATER DRAINAGE SERVICE ADEQUATE TO SERVE LAND NEEDED FOR DEVELOPMENT

What and Why? Woodburn has functional plans that address needed improvements for water, sewer, and stormwater drainage. This strategy requires that they be occasionally assessed to ensure that they remain adequate to support new development. The City should review and amend these functional plans to be consistent with any changes made to the land use and transportation plans. Present City policies require adequate infrastructure be available prior to development. This goal supports those policies.

When? Ongoing throughout the 20-year period.

Who? City staff.

How much? Specific improvements and their costs are identified in each functional plan.

How will we know we succeeded? Lack of infrastructure will not be given as a reason for denying building applications.

GOAL 13. IMPLEMENT WOODBURN PARKS AND RECREATION COMPREHENSIVE PLAN

What and Why? Woodburn adopted an update to its Parks and Recreation Comprehensive Plan in October of 1999. The Plan identifies parks standards and includes a 20-year capital improvements program to achieve City standards.

Parks, open space, and recreational facilities are an important community amenity. Many industries consider quality of life factors when making locational decisions. A good parks and recreation program is one aspect of quality of life that local governments have direct control over.

When? The capital improvement program in the parks and recreation comprehensive plan extends over a 20-year period.

Who? City staff.

How much? \$10.8 million for identified improvements; staff time.

How will we know we succeeded? An annual review shows that improvements described in the Parks and Recreation Comprehensive Plan are being completed according to the plan.

GOAL 14. MAINTAIN EFFICIENT PERMITTING AND DELIVERY OF PUBLIC SERVICES

What and Why? Permitting protects public health, safety, and welfare, and public services provide benefits for residents and businesses in Woodburn. From a business's perspective, however, the permitting process and taxes to fund public services are a cost. To some extent, the City can control the degree to which these costs are significant for businesses wishing to invest in Woodburn. An efficient and streamlined permitting and public service delivery process allows businesses to act swiftly and take advantage of very short-term opportunities.

When? The City should periodically evaluate the permitting process and delivery of public services to make sure they are efficient and balance the interests of city residents and businesses with the costs.

Who? City staff; the City should seek input from the businesses that have applied for permits or public services regarding the cost, response time, and quality of service. Woodburn may benefit from an outside evaluation of its public service delivery.

How much? Approximately 40 hours of staff time for each periodic review; additional fees for outside consultant if needed.

How will we know we succeeded? When periodic review of the permitting process and delivery of public services is implemented.

GOAL 15. SUPPORT QUALITY EDUCATION IN WOODBURN

What and Why? The City should work with Woodburn Public Schools to maintain and enhance the quality of K-12 education available in Woodburn. The availability of high-quality education is an important aspect of quality of life and is a major consideration when high-income family households are selecting a place to live. Maintaining and improving the quality of education in Woodburn will make the city more attractive to high-income households, as well as improve the workforce skills and raise the earning potential of local graduates.

When? Summer 2001.

Who? City staff in conjunction with Woodburn Public Schools.

How much? Initial cost for City staff time to meet with Woodburn Public School staff. The City may assume additional costs if it finds those costs will effectively support quality education in Woodburn.

... how we succeeded? The City will have a more formal process for discussing economic development and workforce training with the Woodburn School District.

WORKFORCE TRAINING AND EDUCATION

The *Economic Opportunities Analysis* identified several characteristics of the local workforce that could be improved to make Woodburn more competitive for high-wage employment. These included relatively low educational attainment among the local workforce. This section focuses on strategies to train or recruit new people. The strategies focus on existing Woodburn residents.

Training opportunities need to be available for both labor and management. Many training and education opportunities already exist in Woodburn. Moreover, all of these programs are provided through organizations outside of Woodburn's municipal government, so the goals and strategies focus on coordination and support of training and education programs.

GOAL W1. SUPPORT WORKFORCE TRAINING AND DEVELOPMENT SERVICES AVAILABLE IN WOODBURN

W1.1. COORDINATE AND SUPPORT OTHER ORGANIZATIONS TO SUSTAIN AND EXPAND WORKFORCE SERVICES AVAILABLE IN WOODBURN

What and Why? The City should coordinate with organizations that offer workforce development services to find ways to assist these organizations and take actions to complement existing efforts. The *Economic Opportunity Analysis* found that Woodburn has a high share of population that completed only elementary school. Educational attainment and job skills of Woodburn residents will need to improve if residents to hold high-skill high-wage jobs created in Woodburn.

When? Begin immediately; ongoing throughout the 20-year planning period.

Who? The City of Woodburn should coordinate with Chemeketa Community College and organizations that offer workforce services at the Woodburn Campus and elsewhere.

How much? 40 hours per year when stabilized; could be two or three times more during start-up.

How will we know we succeeded? An increase in the number of Woodburn residents that use programs to enhance skills, and the creation of high-wage jobs that utilize the skills of Woodburn residents.

What else? Programs to increase the work skills of residents must be complemented by efforts to create jobs that match the available skills. Otherwise skilled workers may leave the community for jobs elsewhere.

W1.2. SUPPORT COLLABORATION BETWEEN WOODBURN PUBLIC SCHOOLS, CHEMEKETA COMMUNITY COLLEGE, AND LOCAL EMPLOYERS TO ADDRESS WORKFORCE TRAINING NEEDS

What and Why? Matching skills training with the needs of area employers should increase the effectiveness of workforce development programs in Woodburn.

When? Begin immediately; ongoing throughout the 20-year planning period.

Who? In addition to Woodburn Public Schools and Chemeketa Community College, the City may work with the Mid-Willamette Valley Education Consortium and the Regional Chamber Education Alliance. These organizations are working to incorporate work skills into high school curriculums and to increase employer-school collaborations.

How much? 40 hours per year when stabilized; could be two or three times more during start-up.

How will we know we succeeded? Preliminary success measured as having made the contacts and established connections. Later, success is number of programs offered and enrollment by Woodburn residents. Ultimately, success is reports back from employers of improved performance from recent graduates of high school or training programs.

W1.3. DEVELOP A TRAINING PACKAGE AS AN INCENTIVE TO RETAIN AND ATTRACT EMPLOYERS.

What and Why? The City of Woodburn should support effective marketing of workforce services in Woodburn in conjunction with the Chamber of Commerce and Chemeketa Community College. The City should ensure effective implementation of workforce services needed to attract employers. This strategy will help retain or attract firms by lowering their costs for hiring and training, and improved skills will help Woodburn residents hold higher-wage jobs.

When? Begin immediately; ongoing throughout the 20-year planning period.

Who? Workforce services are already marketed by the Chamber of Commerce and Chemeketa Community College. The City should cooperate with existing efforts to create a coordinated and effective economic development marketing program.

How much? Annual staff time covered by W1.1 and W1.2.

How will we know we succeeded? When an expanding or new business takes advantage of workforce services to help create higher-wage jobs in Woodburn.

What else? Workforce development programs must be complemented by efforts to create jobs that match the available skills. Otherwise skilled workers may leave the community for jobs elsewhere.

BUSINESS DEVELOPMENT

Business development includes strategies to support (1) the success of existing businesses in Woodburn, (2) the creation of local startup businesses, and (3) the relocation of new employers to Woodburn. Many communities acknowledge the importance of all three activities, but focus their staff time and budgets on the third, recruitment activities. While recruitment is an important strategy, the City intends to coordinate with other local and regional organizations to reduce staff investment in recruitment activities. The idea is focus on providing quick, accurate information and personalized attention to employers that contact Woodburn (either directly, or indirectly through state and county organizations).

Thus, business development goals and strategies focus on retention of existing business and activities that support and enhance existing City programs.

GOAL B1. SUPPORT THE SUCCESS OF BUSINESSES IN WOODBURN

B1.1. SUSTAIN AND ENHANCE BUSINESS SKILLS AND MANAGEMENT TRAINING AVAILABLE IN WOODBURN

What and Why? Small businesses create a significant share of new jobs, and also have the fewest resources for training to improve the skills of administrative staff or management. This task is parallel to W1.1 and W.1.2 that address training of potential employees—this task addresses the training management.

When? Begin immediately; ongoing throughout the 20-year planning period.

Who? The City should collaborate with the Chemeketa Community College Woodburn Campus and local Chamber of Commerce to find ways to sustain existing programs and implement additional programs targeted to the needs of businesses in Woodburn.

How much? 40 hours per year when stabilized; could be two or three times more during start-up.

How will we know we succeeded? Preliminary success measured as having made the contacts and established connections. Later, success is number of programs offered and enrollment by Woodburn residents. Ultimately, success is reports back from employers of improved performance and satisfaction with the program.

B1.2. IMPROVE INFORMATION EXCHANGE

What and Why? This task has two components: (1) information that the City makes available to businesses considering development in Woodburn, and (2) information about and access to programs available through the Oregon Economic and Community

Development Department, Small Businesses Administration, and other agencies.

A service to provide one-stop information to match the needs of employers to existing funding sources could increase the assistance available in Woodburn and reduce the response time for assistance. Whatever the City prepares should be in electronic format. That allows the information to be quickly edited, either to update or customize it, even if it is eventually transmitted to a prospective employer as a hard copy. Better would be to tie the information to a City-based web page.

The Oregon Economic and Community Development Department, Small Business Administration, and other agencies offer a wide variety of financial assistance programs for existing businesses. Each program has different funding criteria and application requirements.

This is a relatively expensive task, but critical to the City's ability respond to inquiries about development.

When? Prepare computer-based information package by June 2002.

Who? City of Woodburn staff; consultants. The City may want to consider hiring an economic development director to coordinate its economic development efforts.

How much? 300 – 600 hours, depending on the sophistication of the effort.

How will we know we succeeded? Complete package of electronic information available by June 2002, with staff trained on how to get that information to customers quickly.

GOAL B2. SUPPORT EFFORTS TO CREATE HIGH-WAGE JOBS IN WOODBURN

B2.1. COORDINATE WITH OTHER ECONOMIC DEVELOPMENT ORGANIZATIONS TO DEVELOP A COHERENT AND EFFECTIVE MARKETING PROGRAM

What and Why? A variety of public agencies and private organizations help support economic development and market Woodburn as a business location. The City should coordinate with these organizations to develop a marketing strategy that best uses the resources of each organization. A effective marketing strategy makes the best use of existing resources and provides a single point person of contact for prospective firms to get information and assistance with permitting and public services.

When? Begin immediately; ongoing throughout the 20-year planning period.

Who? The City of Woodburn in conjunction with the CCC Woodburn Campus, Chamber of Commerce, Salem Economic Development Corporation, and OCEDD. The City may want to consider hiring an economic development director to manage the City's efforts.

How much? 100 - 200 hours of staff time.

How will we know we succeeded? An annual review of a tracking process shows an increased number of inquiries from businesses interested in locating in Woodburn.

What else? Ties with B1.2. The City should create and maintain a database of business inquiries. The database could track various information on the inquiries. The City should follow up with businesses that choose to locate elsewhere to gather information on how it can be more competitive.

B2.2. CONSIDER AND EVALUATE FINANCIAL INCENTIVES TO RETAIN AND ATTRACT FIRMS TO WOODBURN

What and Why? Many communities offer financial incentives to retain and attract employers by reducing their costs, however research shows that many incentive programs cost more than the benefits they produce. Woodburn could target incentives on specific industries or for any firm that meet specified criteria. Incentives could also be targeted to specific areas of Woodburn. Potential incentives include workforce screening and training, reduced fees for permits and infrastructure, Enterprise Zones, or a revolving loan program. Most small cities such as Woodburn do not have the resources to offer an extensive incentive package, so they focus on implementing State programs (such as Enterprise Zones), reducing fees and response times for permits and public services, and coordinating with other organizations to provide services needed by firms. One of the most effective locally-funded incentives is a revolving loan fund for furnishings, fixtures, and equipment, which commercial banks are reluctant to fund.

When? Begin evaluation immediately; ongoing throughout the 20-year planning period.

Who? City of Woodburn staff in conjunction with OCEDD, local banks, and other economic development organizations.

How much? Initial costs are staff time to consider and evaluate potential incentives. Costs of incentives themselves will be determined by which incentives the City decides to implement and the number of employers that use these incentives.

How will we know we succeeded? When employers take advantage of the financial incentives to create high-wage jobs in Woodburn.

What else? Incentive programs must be complemented by efficient delivery of public services and other inputs needed by employers, such as buildable land and an adequately-trained workforce.

B2.3. CONSIDER CREATION OF A LOCAL ECONOMIC DEVELOPMENT CORPORATION IN WOODBURN

What and Why? Economic Development Corporations (EDC) are non-profit corporations dedicated to promoting economic development in their

local community, typically by maintaining information on existing development sites, marketing, and by coordinating information on available assistance programs. In addition to recruitment of large employers, Economic Development Corporations can assist in creating neighborhood-level improvements such as restaurants, grocery stores, and cultural facilities that enhance the community's quality of life.

Currently Woodburn is served by the Salem Economic Development Corporation (SEDCOR), but a local EDC may be more effective by focusing solely on the needs of Woodburn.

When? After an evaluation of the effectiveness of SEDCOR in promoting economic development in Woodburn.

Who? The City would need to facilitate incorporation of a non-profit EDC, assist in launching the organization, and provide ongoing coordination and support.

How much? Initial costs are staff time for evaluation; additional funding may be necessary to create and support the EDC.

How will we know we succeeded? Establishment of a local EDC, or a decision to continue the local relationship with SEDCOR.

B2.4. IMPROVE WOODBURN'S APPEARANCE AND IMAGE

What and Why? Improving Woodburn's appearance image as a community could make it more attractive to employers looking for a location. Actions to improve the City's appearance include signage at city entrances, beautification of commercial strips such as on Hwy 99, and better signage and events to attract people to downtown Woodburn. The City's image is a function of its appearance and presentation, and how it is perceived by employers. An economic development marketing program should emphasize Woodburn's small-town character and pro-business attitude.

When? 1-5 years.

Who? This strategy should be pursued with direct expenditures by the City of Woodburn, primarily through the public works department, and with coordination with other economic development organizations in the community. The City may want to work with a public relations firm to find out how the City is perceived by others and how to improve that perception.

How much? Depends on the specific actions implemented by the City; some costs may be funded through budgets for public works projects such as road improvements. Funding may be contributed through grants or donations by local businesses.

How will we know we succeeded? Implementation of local beautification projects and marketing that promotes a positive image of Woodburn.

CULTURAL AMENITIES

What and Why? Social and cultural amenities include publicly-funded facilities such as parks, recreation centers, performing arts centers, or educational facilities, and privately-funded facilities such as restaurants and theaters. This goal can be supported through several of the goals and strategies identified in other sections of this chapter. Implementation of the Parks and Recreation Comprehensive Plan (Goal I.3) would help create and enhance amenities provided through the City's parks and recreation programs. Urban renewal or improvement districts (Goal L.3, Strategy F.2.3) can be used to help create social and cultural amenities within the district boundaries. A Economic Development Corporation (Strategy B.2.3) can help create social and cultural amenities in Woodburn through marketing, financial assistance, and coordination of existing assistance and training programs. A wider range of social and cultural amenities will improve quality-of-life in Woodburn and make the city more attractive to prospective residents and employers. Social and cultural amenities, however, are not high on the list of locational criteria for most businesses.

When? Timing will be driven by implementation of related goals and strategies.

Who? City of Woodburn staff in conjunction with other economic development organizations.

How much? In addition to City staff time, costs to be determined by the strategies implemented by the City.

How will we know we succeeded? By expansion of the number and range of social and cultural amenities in Woodburn.

FINANCE

Infrastructure strategies cannot be implemented in the absence of solid financial strategies. Financial strategies must not only consider funding for capital improvements, but for ongoing operations and maintenance consistent with City standards.

It is City policy to take a broad view of infrastructure financing. That view includes capital costs, operations, and maintenance throughout the life of a public facility or improvement. In summary, the foundation of the City's strategy is to make sure that it has revenue sources to make (1) timely investments in the infrastructure, and (2) cost-effective investments in maintenance that optimize the effective life of the facilities.

GOAL F1. TREAT PUBLIC INVESTMENTS AS FULL, LIFE-CYCLE COSTS

What and Why? Public investment in infrastructure is a long-run investment. Operations and maintenance are a real and important part of the cost. This goal may require review of the existing procedures for evaluation of public facility costs. It may also require consideration of new funding sources to ensure adequate funds are available for operations and maintenance of public facilities. The City currently has sufficient funding to keep up with operation and maintenance costs, and sets System Development Charges at a level to recover 100% of costs.

When? Review of existing policies and procedures: July - December 2001; ongoing implementation.

Who? City staff; City Manager, Finance Director, Public Works Director

How much? The specific costs will be determined in updates to the City's Capital Improvement Programs.

How will we know we succeeded? Review of policies; adoption of new policies if necessary.

GOAL F2. ENSURE THAT FINANCING FOR INFRASTRUCTURE IS ADEQUATE AND FAIR

Financing is sufficient if covers full lifecycle costs, including operations and maintenance. While it is somewhat subjective, sound financing policies generally attempt to have people pay in proportion to cost imposed or benefits received. The following strategies are intended to ensure fair and adequate financing for infrastructure.

F2.1. REVIEW TRANSPORTATION FUNDING POLICIES

What and Why? Many mechanisms are available to fund transportation improvements. These include systems development charges, exactions, special legislative funding, grants, and other approaches. This strategy is intended to ensure adequate funds are available for transportation improvements, that funding is sufficient for operating and maintenance activities, and that funding is fair. The City should complete a review of its transportation systems development charge, and evaluate whether additional funding strategies or programs not identified in the current Transportation System Plan are appropriate.

When? July 2001 - June 2002.

Who? City staff.

How much? 100 hours of staff time over one year.

How will we know we succeeded? Adoption of new or revised funding policies; acknowledgement that existing policies are adequate.

F2.2. EVALUATE OTHER FINANCE STRATEGIES

What and Why? This strategy would evaluate financing programs for other public facilities and services including water, sewer, stormwater, and parks. Each of these public facilities has a separate functional plan, a separate capital improvements program, and a separate set of funding strategies. Coordinating these strategies is important to maintain the desired level of service for each facility.

This strategy is necessary to ensure adequate funding for other infrastructure improvements. It may require modifications to existing funding policies or capital improvement programs.

When? July 2001 - July 2002.

Who? City staff.

How much? 40 hours of staff time.

How will we know we succeeded? Adoption of revised funding policies.

F2.3. CONSIDER CREATION OF A LOCAL RENEWAL DISTRICT OR ECONOMIC IMPROVEMENT DISTRICT

What and Why? A renewal district uses tax increment financing to fund improvements in the district, and an economic improvement district (EID) taxes property at a set rate to fund improvements in the district. EIDs are typically used to fund management and provision of services within the district, such as maintenance and security, that will not be provided by multiple private owners. These funding tools would encourage development and job creation in the districts by lowering costs for businesses in the district and they may help make the districts more attractive as centers of economic activity.

When? 1-5 years.

Who? The City of Woodburn would need to establish and administer either of these districts.

How much? Initial costs are for evaluation.

How will we know we succeeded? When the districts help create jobs in Woodburn.

What else? Improvements and incentives available through funding districts should be marketed to prospective businesses, and the investments made by the district should be promoted to residents to sustain public support for the districts.

INSTITUTIONAL ORGANIZATION AND COORDINATION

There are numerous organizations engaged in economic development efforts that include Woodburn. It makes sense for Woodburn to coordinate with these organizations in order to take full advantage of these efforts and reduce the need for City actions and expenditures.

The policies in this section overlap with those in all previous categories, but especially with Workforce and Business Development.

GOAL C1. DEVELOP CITY INSTITUTIONAL STRATEGY FOR ESTABLISHING A CITY ECONOMIC DEVELOPMENT PROCESS

C1.1. ESTABLISH INTER-ORGANIZATION ECONOMIC DEVELOPMENT TEAM

What and Why? An Economic Development Team would have the primary responsibility of coordinating the efforts of the various organizations to create a coherent and effective economic development strategy for Woodburn.

When? 1-5 years.

Who? The development team should consist of the city manager, city planner, public works director, and representatives of the Chamber of Commerce and other relevant organizations. The City may want to consider hiring an economic development director to oversee the City's economic development efforts.

How much? Minimum cost will be staff time to coordinate with other organizations; an economic development director may have an annual salary on the order of \$60,000 plus benefits, and would require costs for office and other overhead.

How will we know we succeeded? Establishment of the team; the number of meetings the team has with prospective businesses each year.

GOAL C2. COORDINATE WITH MARION COUNTY AND OTHER REGIONAL AND STATEWIDE ORGANIZATIONS TO SUPPORT ECONOMIC DEVELOPMENT IN WOODBURN

C2.1. DEVELOP STRATEGIC PARTNERSHIPS WITH OTHER LOCAL AND REGIONAL GROUPS

What and Why? The City of Woodburn should coordinate its economic development efforts with the Oregon Economic and Community Development Department, Oregon Employment Department, Salem Economic Development Corporation, Marion County, Chemeketa Community College, and other relevant organizations. Coordination with these organizations will allow the City to take full advantage of existing efforts and avoid funding redundant programs.

When? Immediately and regularly throughout the City's economic development efforts.

Who? City of Woodburn staff and other organizations. The City may want to consider hiring an economic development director to coordinate and manage the City's economic development efforts.

How much? Approximately 160 hours of staff time for initial meetings and coordination, with an additional 40 hours 1-2 per year for ongoing coordination.

How will we know we succeeded? When the City has met with other organizations and developed a coordinated economic development program.

What else? This strategy complements Strategy W.1.1, W.1.3, B.1.1, and B.2.1.

C2.2. COORDINATE WITH SCHOOL DISTRICT

What and Why? As new businesses are attracted to Woodburn, those industries may require specialized skills. The City should coordinate with the Woodburn School District to offer specialized training, where appropriate. The City should also coordinate with the Woodburn School District to find ways the City can support delivery of quality education in Woodburn to improve quality of life and make the city more attractive for high-income households. The City should work with the District to identify a staff liaison from each organization to coordinate activities.

When? Begin immediately; ongoing throughout the 20-year planning period.

Who? City staff, Woodburn School District.

How much? Approximately 40 hours of staff time per year for initial and ongoing coordination.

How will we know we succeeded? Establishment of a formal coordination process.

What else? This strategy compliments Goal I5 and Strategy W.1.2.

IMPLICATIONS OF ECONOMIC DEVELOPMENT GOALS AND STRATEGIES

The economic development goals and strategies described in this chapter have several major implications for the City of Woodburn. Overall, they show that the City has a lot of work to do on economic development. We believe a key step for implementing these goals and strategies is hiring an economic development planner to focus and maintain the City's efforts.

Implementation of these economic development goals and strategies will require the City to integrate economic development, land use, public facility, and transportation plans into a coherent package. This integration will include making adjustments to population and employment forecasts used in various plans and following these adjustments through to the conclusions of these plans.

The findings of this report and the City's Buildable Lands Project report suggest the City may need to make changes to plan designations and expand its UGB, which will require an update to the City's buildable lands inventory.

All of these implications will need to be addressed over the next 12 - 24 months.



City of Woodburn
Preliminary Analysis
Statewide Planning Goal Compliance Issues
 June 11, 2001

Woodburn may amend its comprehensive plan, transportation system plan and land use regulations to maximize its economic development opportunities. WPS has been asked to analyze Oregon's Statewide Planning Goal issues that need to be addressed if the city initiates these amendments. Because the Statewide Planning Goals are inter-related, a proposal to amend the comprehensive plan and land use regulations must comply with state goals and be internally consistent.

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Introduction

This memorandum is based on the following logic:

1. The Economic Opportunities Analysis (ECONorthwest, 2001) has identified target industries and their quantitative and qualitative site needs.
2. The Woodburn City Council has determined that amendments to the Woodburn Comprehensive Plan and land use regulations may be necessary to provide suitable sites for targeted industries or to address industrial park siting criteria.
3. Due to the apparent shortage of suitable industrial sites within the existing Woodburn UGB, amendments to the Woodburn Urban Growth Boundary (UGB) may also be required.

Thirteen of Oregon's 19 Statewide Planning Goals appear to apply to plan or code amendments within the Woodburn UGB and its adjacent rural area¹:

- Goal 1: Citizen Involvement
- Goal 2: Land Use Planning (OAR Chapter 660, Division 4)
- Goal 3: Agricultural Land (ORS 215.243; OAR Chapter 660, Division 33)
- Goal 5: Natural Resources, Scenic and Historic Areas, and Open Spaces (OAR Chapter 660, Division 23)
- Goal 6: Air, Land and Water Resources Quality
- Goal 7: Areas Subject to Natural Disasters and Hazards
- Goal 8: Recreational Needs
- Goal 9: Economy of the State (ORS 197.712; OAR Chapter 660, Division 9)
- Goal 10: Housing (ORS 197.296-314; OAR Chapter 660, Division 8)
- Goal 11: Public Facilities and Services (OAR Chapter 660, Division 11)
- Goal 12: Transportation (OAR Chapter 660, Division 12)

¹ Because Woodburn is surrounded by agricultural land (as opposed to forest land), Goal 4: Forest Land, probably does not apply.

- Goal 13: Energy Conservation
- Goal 14: Urbanization (ORS 197.296-298; OAR Chapter 660, Division 4)

These goals, collectively, have both procedural and substantive requirements. The procedural requirements are process-oriented steps the city must take to satisfy the goal provisions. These are typically spelled out in the goal or in the administrative rule that implements the goal. For example, Goal 2 requires that cities and counties work together to decide on population projections. Substantive requirements are the actual issues the city must address to satisfy the goal provisions. For instance, Goal 10 requires cities to provide sufficient buildable land for 20 years of housing. A successful proposal for changes to the comprehensive plan and land use regulations must do both things: follow all the procedural requirements, and meet all the substantive requirements in the statewide goals.

Most of the Statewide Planning Goals listed above have accompanying administrative rules that are longer and more specific than their corresponding goals. The Oregon Land Conservation and Development Commission (LCDC) is the state agency that carries out these rules. Some goals and rules have complementary statutory provisions (e.g., Goals 3, 9, 10, 11 and 14).

All goals are not equal. Certain goals – Goals 2 (Land Use Planning), 5 (Natural Resources), 9 (Economy of the State), 10 (Housing), 11 (Public Facilities and Services), 12 (Transportation) and 14 (Urbanization) – will be given greater scrutiny when comprehensive plan and land use regulation amendments are proposed to increase the supply of industrial land. Other goals – Goals 6, 7, 8 and 13 – must be addressed, but they are not so closely watched. If amendments to the urban growth boundary are proposed, these amendments are likely to face a higher level of scrutiny from state agencies and land use interest groups. Depending on the proposal, other organizations may be involved. For instance, if comprehensive plan map amendments will result in increased traffic to state highways or county roads, ODOT and Marion County will want to review transportation impacts.

In summary, if the city amends its comprehensive plan and land use regulations to create serviced sites that meet the needs of targeted industries, then these amendments must comply with both the procedural and substantive requirements of each of the applicable Statewide Planning Goals and their accompanying administrative rules. This memorandum describes the issues and findings that must be made in order to comply with applicable state goals and rules. The first section of this document identifies procedural goal requirements. The second discusses substantive goal requirements.

Section I: Procedural Goal Requirements

Goal 1: Citizen Involvement

Compliance with Goal 1 is established by demonstrating compliance with Woodburn's acknowledged Citizen Involvement Program. Woodburn's program is prescribed in the citizen involvement goal and policies of the city's comprehensive plan and in its zoning ordinance notice requirements.

Goal 2: Land Use Planning

Goal 2 includes requirements for:

- coordination with Marion County regarding population projections and in the plan amendment process;
- coordination with affected state agencies regarding plan and code amendments;
- internal consistency among the comprehensive plan, land use regulations, factual information and the proposed amendments;
- effective implementation measures that are consistent with and adequate to carry out plan policies; and
- a formal exception to compliance with the Agricultural Lands goal when agricultural land is needed for urban purposes (*i.e.*, when the UGB is expanded).

Coordination with Marion County

Under ORS 195, the county is responsible for ensuring that the population projections of its cities are "coordinated" with the county's population projection. Woodburn's 2020 projection of 26,290 has been coordinated with Marion County and should be used for determining population growth in Woodburn. However, if a change is proposed in this population projection, approval from Marion County is required, and further "coordination" with the State Economist's projection for Marion County may be required.

Marion County also must approve any comprehensive plan or zoning map amendments that affect land outside Woodburn city limits. If plan map amendments are proposed on unincorporated land within the Woodburn UGB, the county must approve these amendments. If changes to comprehensive plan policies are proposed, both the city and the county must approve these amendments. Urban growth boundary amendments must also be jointly adopted to become effective: Marion County has a strong interest in preserving its agricultural land base. county roads may be affected by proposed changes in land use. In all of these areas, the city must demonstrate that coordination with Marion County has

occurred. Marion County should be viewed as an equal partner in the plan amendment process.

Woodburn's urban growth management agreement (UGMA) with Marion County provides guidance regarding the plan amendment and notification process. It is important that Woodburn and Marion County follow the procedural requirements outlined in the UGMA and include findings explaining how compliance with this agreement has been achieved in the plan amendment process.

Coordination with Affected State and Federal Agencies

Goal 2 requires that the concerns of state and federal agencies must be "considered and accommodated to the extent possible" in the plan and code amendment process. At a minimum, State agencies that are likely to be interested in Woodburn's economic development amendment package include the following:

- Oregon Department of Land Conservation & Development (DLCD);
- Oregon Economic Development Department (EDD);
- Oregon Department of Transportation (ODOT);
- Oregon Division of State Lands (DSL);
- Oregon Department of Environmental Quality (DEQ); and
- Oregon Department of Fish & Wildlife (ODFW).

Cities must document state and federal agency concerns, and how it has accommodated these concerns as much as possible. In some instances (e.g., ODOT's interest in state highways and DSL's interest in impacts on inventoried wetlands), the concerns of state agencies are backed by LCDC or their own administrative rules. In such instances, accommodating state agency concerns often means compliance with applicable state administrative rules. The substantive requirements of these rules are addressed in Section II of this memorandum.

Internal Consistency

One of the most common allegations of error to the Land Use Board of Appeals (LUBA) is *inconsistencies* among the factual basis in the plan, plan policies and/or implementing land use regulations.

Goal 2 requires that the factual basis of the plan be consistent with and supportive of the goals and policies of the plan. For example, Woodburn's housing needs analysis must be based on coordinated population projection and existing and projected income levels of city residents. Or, if the Goal 5 inventory includes "significant wetlands," it is critical that these wetlands also be incorporated into the buildable lands inventory. In this case, it is imperative that Woodburn's economic policies and employment zones be consistent with the recommendations of the Economic Opportunities Analysis (OEA) required by Goal 9.

Effective Implementation Measures

Goal 2 requires that implementation measures be “consistent with and adequate to carry out” the policy direction established in the Comprehensive Plan. This means that comprehensive plan policies must have effective implementing plans and regulations – like the zoning and subdivision ordinance, or the capital improvements program. During the plan amendment process, cities may discover that adopted plan policies and land use regulations are inconsistent with the results of studies undertaken during periodic review, or with the Council’s preferred policy direction. Faced with this problem, local governments often ignore or attempt to “write around” adopted plan policies and code standards in their findings, rather than change the policy or standard. Overall, it is more efficient to amend the plan and code consistent with the city’s desired direction as part of the legislative amendment package.²

Goal 2 “Reasons Exception”

The second part of Goal 2 sets forth procedures and criteria that must be followed whenever agricultural land is needed for non-agricultural purposes. This section applies when land is converted from rural to urban use as a result of a UGB amendment. The “reasons” for the Goal 3 “exception” must be included in both the city and county comprehensive plans and must meet the requirements of OAR Chapter 660, Division 4, Exceptions.

Goal 5: Natural Resources, Scenic and Historic Areas, and Open Spaces

Statewide Planning Goal 5 is interpreted by OAR Chapter 660, Division 23. Goal 5 includes a number of procedural requirements for resolving conflicts between urban development and significant resource areas.

- Develop inventory methods and significance criteria.
- If there are significant resource sites, (e.g., wetlands, riparian areas or historic sites), identify conflicts between resource protection and urban development. These conflicting uses are based on zoning. If the city changes zoning to accommodate more or different industrial uses, a new conflicting use determination may be necessary.
- Next, the ESEE (economic, social, environmental and energy) consequences of alternative courses of action must be considered. Again, the ESEE analysis depends on the conflicting uses allowed by zoning, which could change through this process.
- Based on this ESEE analysis, the city must develop and adopt a program that resolves conflicts between resource preservation and urban development.

If, as a result of its Goal 5 program, mapped resource areas are designated unbuildable, they must be removed from the inventory of buildable land. If the UGB does not include an adequate

² ECONorthwest and WPS will review the city’s comprehensive plan and zoning ordinance to identify potential consistency issues as part of this contract.

supply of buildable land, then the UGB itself must be amended to provide sufficient land through the Year 2020.

Wetlands and Riparian Areas

Woodburn has conducted a local wetlands inventory (LWI) for land within the UGB that identifies "significant wetlands and riparian areas" on existing and potential industrial sites. The Woodburn Buildable Lands Inventory classifies "wetlands and riparian areas" as unbuildable land. Nevertheless, it is important that Woodburn complete the Goal 5 process for significant wetlands and riparian areas. Otherwise, there may not be an adequate factual basis for removal of wetlands and riparian areas from the buildable land inventory. This would increase the supply of buildable land within the UGB and undermine the rationale for expansion. (Please see discussion of "safe harbor" provisions under substantive requirements of Goal 5, Section II.)

Statewide Planning Goal 14: Urbanization

The procedural requirements associated with a Goal 14 UGB amendment are discussed under Goal 2, above. In summary:

- UGB amendments must be based on a coordinated population projection.
- The factual base underlying a UGB amendment must support the need for the amendment, consistent with Goals 9 and 10. The buildable lands inventory must recognize constraints identified Goal 5 and Goal 7 inventories.
- Both the city and the county must adopt the UGB amendment and plan designations for land to be included within the UGB.
- The procedural and notice requirements for exceptions specified in Goal 2, Part II (and in OAR Chapter 660, Division 4) and the urban growth management agreement between Marion County and Woodburn.
- Comments of state and federal agencies must be considered and accommodated to the extent possible.
- If a need for a specific type of site is identified in the economic opportunities analysis, the comprehensive plan and zoning ordinance must ensure that the site is reserved for that purpose.

Section II: Substantive Goals Requirements

In addition to procedural requirements, Statewide Planning Goals 3 through 14 have substantive requirements that must be addressed when substantial comprehensive plan and code amendments are proposed.

Goals 5: Natural Resources, Scenic and Historic Areas, and Open Spaces

As indicated in the discussion of Goal 5 in Section I, above, there is a relationship between Goal 5 resource areas, Goal 9 site suitability analyses, and Goal 14 buildable land inventories. If local governments restrict development on significant Goal 5 resource areas, then these areas are considered unbuildable. Since the city wants to ensure an adequate supply of buildable industrial land to meet long-term needs, the city should consider the site-suitability consequences of adopting regulations to protect Goal 5 resources.

Safe Harbor for Stream Corridors and Wetlands

OAR 660-23-090 and 660-023-100 explains how the Goal 5 process works for significant wetlands and stream corridors (riparian areas). Woodburn has two options:

1. Go through the entire Goal 5 process described in OAR 660-23-030 through 050 (and summarized in Section I, above); or
2. Use "safe harbor" options for significant wetlands and stream corridors.

WPS recommends that the city consider the safe harbor option, because it saves time and money and reduces uncertainty. The safe harbor option does not require a conflicting use analysis, ESEE analysis, or a local Goal 5 program. Rather, it simply requires protection of:

- locally-significant wetlands that appear on the LWI; and
- fish-bearing streams and their riparian area. (Maps of "fish-bearing streams" are available through ODFW or the Department of Forestry.)

WPS has developed safe harbor ordinances that have been acknowledged by LCDC for a number of jurisdictions in Oregon. If requested, WPS can provide copies of acknowledged safe harbor regulations for city review.

Historic Sites and Structures

Woodburn should account for significant historic sites and structures in the buildable land inventory. If there are sites or structures listed on the National Register and protected by

local regulations, their boundaries should be mapped and excluded from the buildable land inventory.

Goal 5 Conclusion

Goal 5 requires local governments to inventory significant resource sites, identify conflicting uses, and analyze the consequences of protecting, not protecting, or partially protecting each type of resource. Woodburn's stream corridors and wetlands reduce the area of land within the UGB available for development. Woodburn also has historic resources that may limit the development potential of designated industrial sites. Once Woodburn has made a policy choice regarding its treatment of stream corridors, wetlands and historic resources, these policy choices must be factored into the buildable lands inventory (and industrial site suitability analysis) for land within the UGB.

Goal 6: Air, Land and Water Resources Quality

Goal 6 requires that "air, land, and water resource quality" not be "degraded" as a result of planned urban development. DEQ is responsible for administration of the Clean Air Act and the Clean Water Act at the state level.³ The way that cities meet Goal 6 is through demonstration of compliance with Environmental Quality Commission (EQC) air, land and water quality administrative rules. Water quality standards typically are met through EQC approval of plans for sanitary sewer systems. DEQ also regulates point and non-point source emissions related to water and air quality. Therefore, coordination with DEQ is the essential element in demonstrating compliance with Goal 6.

Woodburn recently updated its Public Facilities Plan, which addresses storm drainage, sanitary sewer, water and transportation projects necessary to accommodate planned growth within the UGB. However, if proposed plan amendments increase the supply of industrial land, then these plans may need to be revisited to assess any increased impacts from planned industrial development. If UGB amendments are proposed, then compliance with Goal 6 must be demonstrated. (See, for example, *Concerned Citizens v. Jackson County* [LUBA No. 95-225].)

Goal 6 Conclusion

Goal 6 requires that air, land and water resource quality not be degraded as a result of proposed plan amendments. If industrial land is added to the UGB, then the city must demonstrate that it has coordinated these changes with the Department of Environmental Quality to address any increased impacts.

Goal 7: Areas Subject to Natural Disasters and Hazards

³ See, for example, OAR Chapter 240, Divisions 21, 35, 41 and 48.

Goal 7 requires that cities and counties adopt measures to protect life and property from natural hazards and disasters, such as slides and floods. Because Woodburn is relatively flat, it does not have major slope hazards. Woodburn does, however, have considerable land within the 100-year floodplain.

The Goal 10 Administrative Rule authorizes local governments to exclude land with slopes of 25% or greater, and land within the 100-year floodplain, from residential buildable lands inventories. (See definitions of buildable land in OAR Chapter 660, Division 8.⁴) These factors must be considered when assessing site suitability under the Goal 9 rule. (See OAR Chapter 660, Division 9.)

The 1999 Buildable Lands Inventory excluded the 100-year floodplain and slopes of 25% and greater from the buildable lands inventory. (See Exhibit 1, Memorandum from W&H Pacific dated June 25, 1999.)

However, more recently, DLCD has asked local governments to adopt regulations that prohibit development on steep slopes and within the 100-year floodplain, if such land is to be considered "unbuildable" for purposes of UGB analysis.⁵ Although we know of no case law that supports this position, the city should be aware that this interpretation exists.

Goal 7 Conclusion

Woodburn must consider areas subject to natural disasters and hazards when assessing industrial site suitability. Because Woodburn is located on relatively flat land, the city's primary natural hazard is flooding. The city's 2000 buildable lands inventory excludes land within the 100-year floodplain. Generally, land within the 100-year floodplain and on slopes of 25% or greater is considered unbuildable.

Goal 8: Recreational Needs

Goal 8, as it applies within UGBs, has no implementing administrative rule. In Woodburn's case, improving the city's park and recreation system probably will make the city more attractive to firms that may choose to locate in the area.

⁴ OAR 660-08-0005(2) reads as follows:

"2) 'Buildable Land' means residentially designated vacant and, at the option of the local jurisdiction, redevelopable land within the Metro urban growth boundary that is not severely constrained by natural hazards (Statewide Planning Goal 7) or subject to natural resource protection measures (Statewide Planning Goals 5 and 15). Publicly owned land is generally not considered available for residential use. Land with slopes of 25 percent or greater unless otherwise provided for at the time of acknowledgment and land within the 100-year floodplain is generally considered unbuildable for purposes of density calculations."

⁵ See, for example, 1999 comments from Mark Radabaugh and Bill Adams regarding McMinnville's buildable lands inventory. See also draft Goal 14 administrative rule (not adopted). DLCD has offered different interpretations in many other acknowledgement orders. See, for example, Portland Metropolitan UGB or the Eugene-Springfield Metro Plan acknowledgement orders.

Generally, publicly-owned land that is reserved for parks is not considered available for private economic development. This assumption is reflected in the 1999 Buildable Lands Inventory. (See Technical Memorandum 1: Final Buildable Lands Inventory Methodology.)

Goal 8 Conclusion

There are unlikely to be any significant Goal 8 issues.

Goal 9: Economy of the State

ECONorthwest's primary tasks are to conduct the "economic opportunities analysis" (EOA) and determine whether Woodburn has an adequate supply of suitable sites available to meet the needs of targeted industries, as required by Goal 9 and OAR Chapter 660, Division 9. The Goal 9 rule resulted from 1983 legislation that required local governments to undertake economic opportunities analyses to improve the state's then-lagging economy. Quoting from OAR 660-09-000:

"The purpose of this division is to aid in achieving the requirements of Goal 9, Economy of the State (OAR 660-015-0000(9)), by implementing the requirements of ORS 197.712(2)(a) - (d). The rule responds to legislative direction to assure that comprehensive plans and land use regulations are updated to provide adequate opportunities for a variety of economic activities throughout the state (ORS 197.712(1)) and to assure that plans are based on available information about state and national economic trends. (ORS 197.717(2))."

"An Adequate Supply of Sites. . ."

ORS 197.712 makes it clear, among other things, that LCDC must ensure that cities provide "at least an adequate supply of sites of suitable sizes, types, locations and service levels for industrial and commercial uses" consistent with plan policies that address economic opportunities in the community. ORS 197.712 reads as follows:

"197.712 Commission duties; comprehensive plan provisions; public facility plans; state agency coordination plans; compliance deadline.

- (1) In addition to the findings and policies set forth in ORS 197.005, 197.010 and 215.243, the Legislative Assembly finds and declares that, in carrying out statewide comprehensive land use planning, the provision of adequate opportunities for a variety of economic activities throughout the state is vital to the health, welfare and prosperity of all the people of the state.*
- (2) By the adoption of new goals or rules, or the application, interpretation or amendment of existing goals or rules, the commission shall implement all of the following:*
 - (a) Comprehensive plans shall include an analysis of the community's economic patterns, potentialities, strengths and deficiencies as they relate to state and national trends.*
 - (b) Comprehensive plans shall contain policies concerning the economic development opportunities in the community.*

- (c) *Comprehensive plans and land use regulations shall provide for at least an adequate supply of sites of suitable sizes, types, locations and service levels for industrial and commercial uses consistent with plan policies.*
- (d) *Comprehensive plans and land use regulations shall provide for compatible uses on or near sites zoned for specific industrial and commercial uses.”*

Designation of Lands for Commercial and Industrial Uses

OAR 660-009-0025 focuses on “measures” that cities must take to implement ORS 197.712.⁶ Key among these measures is designating sites that meet identified needs for categories of employment uses. If plan amendments – especially UGB amendments – are proposed, then it is critical that Woodburn make detailed findings demonstrating consistency with these criteria.

“Measures adequate to implement policies adopted pursuant to OAR 660-009-0020 shall be adopted. Appropriate implementing measures include amendments to plan and zone map designations, land use regulations, and public facility plans:

(1) Identification of Needed Sites. The plan shall identify the approximate number and acreage of sites needed to accommodate industrial and commercial uses to implement plan policies. The need for sites should be specified in several broad ‘site categories’, (e.g., light industrial, heavy industrial, commercial office, commercial retail, highway commercial, etc.) combining compatible uses with similar site requirements. It is not necessary to provide a different type of site for each industrial or commercial use which may locate in the planning area. Several broad site categories will provide for industrial and commercial uses likely to occur in most planning areas.

(2) Long-Term Supply of Land. Plans shall designate land suitable to meet the site needs identified in section (1) of this rule. The total acreage of land designated in each site category shall at least equal the projected land needs for each category during the 20-year planning period. Jurisdictions need not designate sites for neighborhood commercial uses in urbanizing areas if they have adopted plan policies which provide clear standards for redesignation of residential land to provide for such uses. Designation of industrial or commercial lands which involve an amendment to the urban growth boundary must meet the requirements of OAR 660-004-0010(1)(c)(B) and 660-004-0018(3)(a).

(4) Sites for Uses with Special Siting Requirements. Jurisdictions which adopt objectives or policies to provide for specific uses with special site requirements shall adopt policies and land use regulations to provide for the needs of those uses. Special site requirements include but need not be limited to large acreage sites, special site configurations, direct access to transportation facilities, or sensitivity to adjacent land uses, or coastal shoreland sites designated as especially suited for water-dependent use under Goal 17. Policies and land use regulations for these uses shall:

- (a) Identify sites suitable for the proposed use;*
- (b) Protect sites suitable for the proposed use by limiting land divisions and permissible uses and activities to those which would not interfere with development of the site for the intended use; and*

⁶ It is instructive to compare the Goal 9 rule requirements for “measures” with the “measures” that local governments may take for increasing land use efficiency required under ORS 197.296. See discussion under Goal 14.

(c) Where necessary to protect a site for the intended industrial or commercial use include measures which either prevent or appropriately restrict incompatible uses on adjacent and nearby lands."

Relationship to Goal 14

The above statutory and rule provision must be considered within the context of Statewide Planning Goal 14, which requires cities to include sufficient buildable land within UGBs to meet 20-year employment needs.⁷ The Goal 9 analysis addresses both the need for industrial land (Factors 1 and 2 of Goal 14) and the locational characteristics of needed industrial land (Factors 3-7 of Goal 14). Goal 14 has also been interpreted by the LCDC such that the UGB must include sufficient buildable land for "the planning period," and cannot have more than a 20-year land supply.⁸

The Woodburn Economic Opportunities Analysis will address, with specificity, the siting needs of a range of targeted industries and of industrial parks that typically accommodate targeted industries. These siting needs are expressed quantitatively (site size) and qualitatively (site location, topographic and service characteristics) for each targeted industry or type of industrial development.⁹

In most cases, by providing a 20-year supply of industrial land *in the aggregate*, the city will also have a sufficient industrial land supply to meet the siting needs of specific targeted industries. However, it is possible that the supply of suitable sites for a targeted industry or type of development may be extremely limited, to the point of constraining the short-term land market. For example, there may be only one available site that meets the need of a targeted industry, which would not provide for choice in the marketplace. In such cases, ORS 197.712(2) appears to allow local governments to amend the UGB to provide for such choice. However, OAR 660-009-0025 specifically requires that sites that are included within UGBs be specifically reserved for their intended employment use.

⁷ Note that the Goal 9 rule interprets the planning period as equal to 20 years.

⁸ The 1999 Oregon Legislature almost passed legislation that would mandate local and regional governments to provide a 20-year supply of buildable industrial and commercial land within their respective UGBs. The 2001 Legislature is considering a similar bill. The Goal 9 rule now requires that there be sufficient land to meet employment needs "within the planning period" (*i.e.*, 20 years). Based on discussions with DLCD staff, LCDC is likely to support 20-year buildable lands supply legislation in this legislative session. The draft Goal 14 administrative rule also mandates a 20-year industrial and commercial land supply.

⁹ Consider the following Goal 9 Rule definitions (OAR 660-009-0005):

"(3) 'Locational Factors': Features which affect where a particular type of commercial or industrial operation will locate. Locational factors include but are not limited to: proximity to raw materials, supplies, and services; proximity to markets or educational institutions; access to transportation facilities; labor market factors (*e.g.*, skill level, education, age distribution).

(4) 'Site Requirement': The physical attributes of a site without which a particular type or types of industrial or commercial use cannot reasonably operate. Site requirements may include: a minimum acreage or site configuration, specific types or levels of public facilities and services, or direct access to a particular type of transportation facility such as rail or deep water access.

(5) 'Suitable': A site is suitable for industrial or commercial use if the site either provides for the site requirements of the proposed use or category of use or can be expected to provide for the site requirements of the proposed use within the planning period."

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In the end, an industrial land ledger sheet is required. The left-hand column identifies the site characteristics and buildable land area needed for each targeted industry or type of industrial development. The middle column describes buildable industrial sites available to meet this need. The right-hand column identifies the surplus or deficit for each targeted industry or type of industrial development. If there are sufficient suitable sites to meet identified needs for the next 20 years, the inquiry is over. However, any deficits identified on the ledger sheet must be addressed through the plan or code amendment process.

Goal 9 Conclusion

Woodburn must conduct an “economic opportunities analysis” that considers the city’s locational advantages and disadvantages in a regional context. Based on this analysis, the city must identify the types of industries it would like to attract, and the site characteristics required by targeted industries. Next, the city must compare the two. If the UGB has enough land that is properly planned and zoned – that has the site characteristics required by targeted industries – then Woodburn complies with Goal 9. However, if the Woodburn UGB lacks sites that have the site characteristics required by targeted industries, then plan or code amendments are necessary. These amendments must be consistent with other Statewide Planning Goals– especially Goals 2, 5, 10, 11, 12 and 14.

Goal 10: Housing

Goal 10 requires cities to provide sufficient buildable land to provide affordable housing for existing and future residents. Goal 10 reads as follows:

“To provide for the housing needs of citizens of the state. Buildable lands for residential use shall be inventoried and plans shall encourage the availability of adequate numbers of needed housing units at price ranges and rent levels which are commensurate with the financial capabilities of Oregon households and allow for flexibility of housing location, type and density.”

Relationship to Goal 9

As discussed above, Statewide Planning Goal 2 requires that plans be internally consistent and that implementation measures be adequate to carry out the policy direction of the comprehensive plan. Woodburn has already conducted a housing needs analysis and buildable lands inventory as required by Goal 10.¹⁰ This housing needs analysis is based on assumptions about income levels of future Woodburn households, which are based on economic projections. If household income assumptions were to change based on the Economic Opportunities Analysis required by Goal 9, then the housing needs analysis may need to change also. ECONorthwest will review the 1999 housing needs analysis to ensure such internal consistency. If the housing needs analysis changes, this could affect

¹⁰ See *Woodburn Buildable Lands and Urbanization Project* (McKeever/Morris, Inc., February 7, 2000). See especially “Housing Needs Analysis Memorandum” (E.D. Hovee & Company, June 28, 1999) and “Final Buildable Lands Inventory” (W&H Pacific, June 25, 1999).

the area of buildable land needed for housing over the next 20 years. These changes must be carefully documented, especially if UGB amendments are proposed.

Relationship to Goal 14

Goal 14 requires cities to provide a 20-year land supply for housing. Across Oregon, most land within UGBs is allocated to meet housing needs. At the same time, Goal 14 requires a compact urban growth form and "maximum efficiency of land use." Prior to amending UGBs, Goal 14 and ORS 197.198 require cities to examine whether greater residential land use efficiencies can be achieved through zoning or other measures.

If comprehensive plan amendments are necessary to comply with Goal 9, then Goal 14 requires Woodburn first to look inside its UGB to meet industrial needs – before considering rural and agricultural land outside the UGB. Like most cities, most of Woodburn's buildable land supply is designated for residential use. Because there is so much residential land, increasing residential density provides a major opportunity to achieve greater land use efficiency. Therefore, Woodburn must carefully examine its residential land supply, to determine whether some residential land can be re-designated for industrial use,¹¹ before UGB amendments are considered. However, residential land can only be re-designated for industrial if the change will not cause a shortage of buildable residential land.

Goal 10 Conclusion

Goal 9 and Goal 10 analyses must be internally consistent. First, Woodburn must provide sufficient buildable land within its UGB to meet housing needs for the next 20 years. Housing need is a function of household income. The Economic Opportunities Analysis will help determine Woodburn's economic future as well as the projected incomes of its residents. If incomes rise, needed housing types and densities may change, which could effect the amount of residential land that must be included within the UGB. Second, Woodburn may need more industrial land to meet its employment objectives.

Before Woodburn can amend its UGB to meet industrial needs, the city must demonstrate that residential land cannot be re-designated for industrial use. To do this, Woodburn must examine whether residential land can be used more efficiently, while providing sufficient buildable land to meet projected housing needs for the next 20 years. All of this analysis must be internally consistent and documented in any plan and code amendment findings.

Goal 11: Public Facilities and Services

Goal 11 requires a demonstration that adequate public facilities and services can be provided to serve buildable land within the UGB. The Goal 11 rule¹² also requires cities with populations of

¹¹ This was one of the primary purposes of the *Woodburn Buildable Lands and Urbanization Project*.

¹² See OAR Chapter 660, Division 11.

2,500 or greater to adopt "public facilities plans". The public facilities plan (PFP) must address sanitary sewer, storm drainage, water and transportation facilities necessary to support planned housing and employment growth. The PFP must identify need public facilities projects, their approximate timing and estimated costs. If plan amendments are proposed, it is important to assess the impact of these plan amendments on the acknowledged public facilities plan – especially Woodburn's ability to provide needed services to new industrial sites. ORS 197.712 and the Goal 9 rule go further, as indicted below.

Relationship to Goal 9

The Goal 9 rule interprets ORS 197.712 by requiring cities to identify "serviceable" industrial sites "at the time of periodic review." "Serviceable" means those sites that now have, or can be provided with sanitary sewer, water, storm drainage and transportation services within one year.¹³ Our understanding of this rule provision is that when the *initial* public facilities plan is prepared, cities of 2,500 or greater must distinguish between serviceable and non-serviceable sites. However, later plan amendments are not required to make this distinction.¹⁴

Relationship to the Transportation Planning Rule

The Transportation Planning Rule (TPR or Goal 12 Rule)) was adopted about a decade after the Public Facilities Rule (Goal 11 Rule). Although transportation facilities are considered "public facilities" under the Goal 11 Rule, the TPR includes much more demanding requirements – especially where state highways are concerned.

Goal 11 Conclusion

At a minimum, the Goal 11 rule requires Woodburn to demonstrate that adequate sanitary sewer, water, storm drainage and transportation services can be provided to all land within its existing or proposed UGB – and especially to areas proposed for plan amendments or UGB expansion. We recommend that the city update its public facilities plan (PFP) in conjunction with any plan amendment package, to ensure compliance with Goal 11. We also request clarification from DLCDC regarding whether the requirements of OAR 660-009-0025(3) apply to plan amendments during this periodic review process.

¹³ OAR 660-009-0025(3) and (6).

¹⁴ OAR 660-009-0005(3) defines "serviceable" as follows:

6) 'Serviceable': A site is serviceable if:

(a) Public facilities, as defined by OAR Chapter 660, Division 11 currently have adequate capacity to serve development planned for the service area where the site is located or can be upgraded to have adequate capacity within one year; and

(b) Public facilities either are currently extended to the site, or can be provided to the site within one year of a user's application for a building permit or request for service extension."

However, OAR 660-009-0025 requires that local governments with populations of 2,5000 or greater make this distinction only once – at the time of the initial periodic review:

"(3) Short-Term Supply of Serviceable Sites. If the local government is required to prepare a public facility plan by OAR Chapter 660, Division 11 it shall complete subsections (a) through (c) of this section at the time of periodic review. Requirements of this rule apply only to local government decisions made at the time of periodic review. Subsequent implementation of or amendments to the comprehensive plan or the public facility plan which change the supply of serviceable industrial land are not subject to the requirements of this rule."

Goal 12: Transportation

Goal 12 requires coordination with the Oregon Department of Transportation (ODOT) and Marion County in the provision of a "safe, convenient and economic transportation system" that "conforms with local and regional comprehensive land use plans." All modes of transportation must be considered, while avoiding "principal reliance upon any one mode of transportation." Transportation facilities must be inventoried and project needs determined. Transportation facilities must "facilitate the flow of goods and services so as to strengthen the local and regional economy."

The Transportation Planning Rule (TPR) and the Oregon Highway Plan (OHP) implement Goal 12. The TPR requires local governments to prepare a "transportation systems plan" (TSP) that meets the requirements of OAR 660-012-020 through 055. The OHP is a component of Oregon's Statewide Transportation Plan, and includes policies and investment strategies for the state highway system over the next 20 years.

The 1986 Woodburn TSP identified a number of traffic problems that must be addressed during the planning period. Key among these problems is congestion at the intersection of Interstate 5 and Highway 214. If industrial land is added to the Woodburn UGB, congestion at this intersection is likely to increase beyond projected levels.

Comprehensive Plan Amendments

Woodburn has an acknowledged TSP. However, projects identified in the Woodburn TSP are intended to serve planned development based on the comprehensive plan map as it existed in 1986. If changes are made to comprehensive plan designations, then it is likely that the TSP must be amended as well.

The principal reason for comprehensive plan amendments in Woodburn would be to increase the supply of suitable industrial sites within the UGB. When compared with rural or residential land uses, industrial land uses generate relatively high levels of traffic, especially during peak hours. Therefore, industrial plan amendments are likely to "significantly affect a transportation facility,"¹⁵ which in turn triggers OAR 660-012-060 (TPR 060) review criteria.¹⁶

¹⁵ According to OAR 660-012-060(2):

- (2) A plan or land use regulation amendment significantly affects a transportation facility if it:
- (a) Changes the functional classification of an existing or planned transportation facility;
 - (b) Changes standards implementing a functional classification system;
 - (c) Allows types or levels of land uses which would result in levels of travel or access which are inconsistent with the functional classification of a transportation facility; or
 - (d) Would reduce the level of service of the facility below the minimum acceptable level identified in the TSP.

¹⁶ The most relevant case in this regard is *DLCD v. City of Warrenton*, 37 Or LUBA 933 (2000). In that case, LUBA held that (1) a plan amendment that reduces the volume to capacity ratio over ODOT's established maximum "significantly affects" a transportation facility; and (2) OAR 660-12-0060 also applies where the amendment would "further degrade" an already failing (*i.e.*, below standard) facility. In reaching this decision, LUBA relied on the 1999 *Oregon Highway Plan*, Policy 1F.6, which reads:

According to the TPR, comprehensive plan map amendments that have a "significant impact on land use" must either be scaled down or designed to generate less traffic – or the TSP must be amended to include facilities/measures that increase capacity:

- (1) Amendments to functional plans, acknowledged comprehensive plans, and land use regulations which significantly affect a transportation facility shall assure that allowed land uses are consistent with the identified function, capacity, and level of service of the facility. This shall be accomplished by either:
 - (a) Limiting allowed land uses to be consistent with the planned function, capacity and level of service of the transportation facility;
 - (b) Amending the TSP to provide transportation facilities adequate to support the proposed land uses consistent with the requirements of this division; or
 - (c) Altering land use designations, densities, or design requirements to reduce demand for automobile travel and meet travel needs through other modes.

It is our understanding that Woodburn is in the process of requesting a Transportation and Growth Management Program (TGM) grant to update the Woodburn TSP consistent with revised land use needs. It is critical that this grant recognize the relationships between land use and transportation planning in Oregon.

Iterative Process

Prior to adoption of the TPR in the early 1990s, land use planning often occurred in a vacuum, with transportation planning considered as an afterthought. TPR 060 now requires that land use and transportation planning occur at the same time, and that each inform the other. Because transportation facilities are expensive, the cost of providing these facilities is often the limiting factor in determining *where* industrial land should be located.¹⁷

This iterative process is anticipated in the Goal 9 rule. In order to meet Goal 9 site suitability requirements, industrial sites must be shown to have adequate transportation facilities and access. In Woodburn's case, this means providing adequate access to Interstate 5 and constructing transportation improvements that reduce congestion at the I-5 / Hwy 214 intersection. Thus, the cost of providing adequate transportation facilities to potential industrial sites must be considered early in the review process. If costs are too high, a given site may not be considered "suitable" for industrial use.

"...for purposes of evaluating amendments to...acknowledged comprehensive plans and land use regulations subject to OAR 660-012-0060, in situations where the [v/c ratio] for a highway segment, intersection or interchange is above the standards [established in the OHP] and transportation improvements are not planned within the planning horizon [usually, the next 20 years] to bring performance to standard, the performance standard is to avoid further degradation. If an amendment...to an acknowledged comprehensive plan or land use regulation increases the [v/c ratio] further, it will significantly affect a transportation facility."

¹⁷ The other key locational factor, of course, is the Goal 3 requirement to preserve agricultural land. This issue is further addressed under Statewide Planning Goal 14, Urbanization.

As discussed under Goal 14 below, the City should document how it has considered each the three options listed under OAR 660-012-060(1).

- **Limit Land Uses**

This option can be addressed in one of two ways: first, by reducing the amount or type of industrial land to reduce traffic; or second, by locating industrial uses to based on the capacity of existing and planning transportation facilities.

- **Provide Adequate Transportation Facilities**

In Woodburn's case, this option may be the primary means of satisfying TPR 060 requirements. However, as indicated above, the high costs of transportation facilities may be the limiting factor in the city's economic development program. Transportation facilities must also be located so as to minimize impacts on agricultural land.

- **Alter Land Use and Design Requirements**

This option focuses on ways to reduce transportation impacts through techniques such as mixed uses and design standards that encourage alternative modes of transportation. This option must be considered as part of any successful economic development or transportation improvement program.

Goal 12 Conclusion

Woodburn anticipates designating additional industrial land to meet its economic development objectives. These land use changes would increase traffic and will "significantly affect" transportation facilities, especially at the Interstate 5 / Highway 214 interchange. The Transportation Planning Rule (OAR 660-012-060[1]) requires that Woodburn amend the TSP to provide adequate transportation facilities and design standards to reduce transportation impacts. Because of the relationship between land use and transportation, and the high costs of transportation facilities, TPR 060 review is an iterative process.

Goal 13: Energy Conservation

The most significant Goal 13 issue is energy use in the transportation sector, particularly automobile use. The thrust of Woodburn's economic development program is to increase local employment and to avoid becoming a long-commute bedroom community. Goal 13 requirements can be met by using transportation facilities more efficiently, and minimizing vehicle miles traveled by placing housing near employment.

Goal 14: Urbanization¹⁸

¹⁸ Much of this Goal 14 analysis resulted from a collaborative process with land use attorney Corinne Sherton as part of the 1997 Canyonville, Oregon urban growth boundary process.

Goal 14's purpose is: "To provide for an orderly and efficient transition from rural to urban land use." Goal 14 applies to amendments expanding the City's urban growth boundary (UGB) that, by definition, convert rural land to urban or urbanizable land. Goal 14 also applies to amendments to the City's comprehensive plan and land use regulations that affect the conversion of urbanizable land within the UGB to urban uses.

UGB Amendment Issues

Under Goal 14, UGB amendments are governed by:

- Seven UGB establishment factors set forth in Goal 14 itself;
- Priorities for adding land to a UGB set forth in ORS 197.298; and
- Goal exception requirements of ORS 197.732/Goal 2, Part II and OAR 660-04-010(1)(c)(B) and 660-04-020.

Due to the overlapping nature of these standards, they are addressed in integrated form in this section. The relevant issues are addressed under three topical sub-headings:

- The need to expand the city's UGB to include additional land;
- The choice of which land to add to the UGB; and
- Whether the chosen areas are serviceable and compatible with adjacent uses – especially agricultural uses.

Need to Add Additional Land to UGB

Several applicable standards relate to this issue. Goal 14 factors 1 and 2 require the demonstration of a "need" to add land to the UGB, based on long range population projections, housing needs, providing employment opportunities and/or promoting livability. ORS 197.232(1)(c)(A) and Goal 2, Part II(c)(1) require that "reasons justify why the state policy embodied in the applicable goals should not apply." However, OAR 660-04-010(1)(c)(B)(i) specifically provides that this requirement can be satisfied by compliance with the seven factors of Goal 14. Consequently, ORS 197.232(1)(c)(A) and Goal 2, Part II(c)(1) should be addressed together.

ORS 197.232(1)(c)(B) and Goal 2, Part II(c)(2) require a demonstration that areas that do not require a new goal exception "cannot reasonably accommodate the use." In the context of a proposed UGB amendment, this requires a showing that the needs for urban uses cannot be satisfied on land already within the UGB.¹⁹ This issue is also relevant to Goal 14 factor 4, which requires the consideration of "maximum efficiency of land uses" within the existing urban area.

¹⁹ This is because placing needed urban uses on rural land outside a UGB would require exceptions to Goals 11 and 14 and, in many instances also Goals 3 and 4. The only exception might be if the needed urban uses could be accommodated in an "urban unincorporated community," as that term is defined in OAR 660-22-010(8). There is one nearby unincorporated community in Marion County – Brooks. Fargo may also be a rural service center, although this designation is currently under dispute.

(1) Factors 1 and 2

- (1) Demonstrated need to accommodate long range urban population growth requirements consistent with LCDC goals.
- (2) Need for housing, employment opportunities, and livability.

The baseline for all Goal 14 analysis is the coordinated population projection. It is possible that Woodburn may decide to revise this projection consistent with its economic development objectives. Any change in population projection must be justified based on sound demographic analysis, must consider the State Economist's projection for Marion County, and must be fully coordinated with both Marion County and the State of Oregon.

The Economic Opportunities Analysis provides analysis necessary for determining the quality and quantity of sites needed to comply with Goal 9 and Woodburn's economic development objectives. As indicated under the Goal 10 discussion, the housing needs analysis and buildable land inventory will also need to be revised in the light of Woodburn's economic development program. The need for public facilities (transportation, sewer, water, storm drainage, parks, schools) must also be considered in the land needs analysis.

Based on recent case law, the City must clearly explain the assumptions used in projecting housing, employment and livability needs.

(2) Factor 4; ORS 197.232(1)(c)(B) and Goal 2, Part II(c)(2)

- (4) Maximum efficiency of land uses within and on the fringe of the existing urban area. "Areas which do not require a new [goal] exception cannot reasonably accommodate the use."

OAR 660-04-020(2)(b), which implements ORS 197.232(1)(c)(B) and Goal 2, Part II(c)(2), further requires consideration of alternative areas considered that do not require a new goal exception, and that there be an explanation of why the needed uses cannot be reasonably accommodated on such land, and that this explanation consider increasing the density of use in such areas. In Woodburn's case, these standards require a demonstration that the projected needs for urban uses cannot be accommodated within the City's existing UGB, either by locating the needed uses on vacant buildable land within the UGB or by increasing the existing or future density of uses within the existing UGB.

This means that Woodburn must consider the potential for using land already within the UGB more efficiently. This requires explicit consideration of whether changing plan designations within the UGB can be used to increase density, and whether individual vacant lots within the UGB can be assembled to produce larger areas of buildable land to provide for the proposed uses. The justification for the UGB expansion must explain the City's efforts to intensify land uses within the existing UGB to meet a portion of the identified need.

Selection of Land to Add to UGB

The selection of land to add to the UGB is governed by several overlapping standards or sets of standards. ORS 197.298 establishes a system of priorities for selecting land to be added to a UGB. Both ORS 197.298(2) and Goal 14 factor 6 require that land with lower agricultural capability be given higher priority for inclusion. In addition, ORS 197.732(1)(c)(C) and Goal 2, Part II(c)(3) require that the long-term environmental, economic, social and energy (ESEE) consequences resulting from adding the selected areas to the UGB are not significantly more adverse than would result from adding alternative areas to the UGB.

Goal 14 Factor 5 also requires consideration of the ESEE consequences of adding the selected areas to the UGB. Finally, pursuant to Goal 14 factors 3 and 4, the consideration of alternative areas should include their relative serviceability and efficiency of location in relation to the existing urban area. Woodburn must also describe and justify its process for identifying study areas outside the UGB, and then describe and analyze the characteristics of each of the study areas.

(1) Factor 6; ORS 197.298

- (6) Retention of agricultural land as defined; with Class I being the highest priority for retention and Class VI the lowest priority.

ORS 197.298(1) requires that the following priorities be used in selecting land for inclusion in a UGB (in order of higher to lower priority for inclusion):

- (1) Land designated as an urban reserve under ORS 197.298.
- (2) Exception areas or nonresource land adjacent to the UGB.
- (3) Land designated as marginal land under ORS 197.247.
- (4) Land designated for agriculture or forestry in an acknowledged comprehensive plan.

ORS 197.298(2) requires that land of "lower capability as measured by the [U.S. Natural Resources Conservation Service (NRCS) agricultural soil] capability classification system or by cubic foot site class, whichever is appropriate for the current use," be given higher priority for inclusion in a UGB. However, ORS 197.298(3) allows land of lower priority to be included in a UGB in the following circumstances:

- (a) Specific types of identified land needs cannot be reasonably accommodated on higher priority lands;
- (b) Future urban services could not reasonably be provided to the higher priority [lands] due to topographical or other physical constraints; or
- (c) Maximum efficiency of land uses within a proposed [UGB] requires inclusion of lower priority lands in order to include or provide services to higher priority

lands.

The UGB justification must explain how the priorities of ORS 197.298(1) are satisfied after considering acknowledged exception areas adjacent to the UGB and nearby unincorporated rural communities. In order to satisfy ORS 197.298(2) and (3) and Goal 14, Factor 6, higher capability agricultural must be retained outside the UGB. High Value agricultural soils (as described in OAR Chapter 660, Division 33, Agricultural Lands), should not be included within the UGB if there are reasonable alternatives. Agricultural Class III and IV soils should be included before Agricultural Class I and II soils.

(2) Factors 3 and 4

- (3) Orderly and economic provision for public facilities and services.
- (4) Maximum efficiency of land uses within and on the fringe of the existing urban area.

In evaluating alternative areas for possible inclusion in the UGB, these factors require consideration of their relative serviceability, suitability for efficient urban land uses, and location in relation to the existing urban area. The Goal 12 iterative analysis process described above is directly applicable here, because transportation facilities are also "public facilities" under Factor 3. Detailed findings regarding the city's capacity to serve both the existing UGB and the expanded UGB must be provided with respect to sanitary and storm sewer, water, and transportation services.

(3) Factor 5; ORS 197.232(1)(c)(C) and Goal 2, Part II(c)(3)

- (5) Environmental, energy, economic and social consequences.

The long-term [ESEE] consequences resulting from the use of the proposed site with measures designed to reduce adverse impacts are not significantly more adverse than would typically result from the same proposal being located in areas requiring a goal exception other than the proposed site.

OAR 660-04-020(2)(c), which implements ORS 197.732(1)(c)(C) and Goal 2, Part II(c)(3), requires a description of the characteristics of the alternative areas considered, a discussion of the "typical advantages and disadvantages" of including each area in the UGB, and identification of the "typical positive and negative consequences" resulting from including the selected areas in the UGB, "with measures designed to reduce adverse impacts." OAR 660-04-020(2)(c) also requires an explanation of why the ESEE consequences of adding the selected areas to the UGB, are not significantly more adverse than adding the alternative areas to the UGB.

Therefore, the UGB analysis must describe the level of development projected for the areas added to the UGB. This analysis must also identify proposed measures designed to reduce adverse impacts (e.g., riparian corridor or floodplain provisions). Finally, the analysis must

consider the relative ESEE consequences of designating specific areas for inclusion within the UGB, when compared with alternatives.

Serviceability and Compatibility of Land Added to UGB

Once a need to add land to the UGB has been demonstrated, and the requirements for selection of areas to be added satisfied, it is still necessary to demonstrate that the City has the capability to provide public facilities and services to the areas in an orderly and economic manner (Goal 14, Factor 3) and that proposed urban uses of the areas will be compatible with other adjacent uses (Goal 14 factor 7; ORS 197.732(1)(c)(D) and Goal 2, Part II(c)(4)).

(1) Factor 3

- (3) Orderly and economic provision for public facilities and services.

Factor 3 requires a demonstration that public facilities and services can reasonably be provided to the areas added to the UGB over the planning period, without leaving areas already within the UGB with inadequate facilities and services. The City must show that water and sewerage services can reasonably be provided to the areas added to the UGB over the planning period, without leaving areas already within the UGB with inadequate facilities and services. Woodburn must make a similar showing for other public facilities and services (*i.e.*, police, fire protection, schools, stormwater and solid waste disposal. This can be accomplished by cross referencing Goal 11 and Goal 12 findings.

(2) Factor 7; ORS 197.232(1)(c)(D) and Goal 2, Part II(c)(4)

- (7) Compatibility of the proposed urban uses with nearby agricultural activities.

The proposed uses are compatible with other adjacent uses or will be so rendered through measures designed to reduce adverse impacts.

“Compatible” does not require that there be no interference with, or adverse impact of any kind on, adjacent uses, but rather that the uses be reasonably able to coexist. OAR 660-04-020(2)(d). To address this standard, the City must describe the adjacent rural land uses, and agricultural management and production practices on land adjacent to the areas added to the UGB. The City must also explain why the proposed urban uses will be compatible. If setbacks or other mitigation measures are necessary to ensure compatibility, they must be stated and provisions requiring compliance must be adopted.

Conversion from Urbanizable Land to Urban Uses

Goal 14 provides that conversion of urbanizable land to urban uses shall be based on consideration of four factors. These factors shall be referred to as “conversion” factors, to distinguish them from the seven UGB establishment/amendment factors discussed above. The Goal 14 conversion factors apply to comprehensive plan and land use regulation amendments that affect regulations governing when urbanizable land within a UGB can be put to urban use,

or that redesignate and rezone urbanizable land so that it can be put to urban use. The conversion factors are also applicable to map amendments that add land to the UGB and redesignate land for urban uses.

a. Conversion Factor 1

- (1) Orderly, economic provision for public facilities and services.

To adequately address this factor, the City must demonstrate that it has policies and regulations in place to ensure that adequate public facilities are provided to planned urban development. The City must also demonstrate that it has the capacity to provide such services in a timely fashion. (See also UGB amendment findings related to Goal 14, Factor 3.)

b. Conversion Factor 2

- (2) Availability of sufficient land for the various uses to insure choices in the market place.

Generally, by providing sufficient land to meet 20-year need for each category of land use (industrial, commercial, residential, public), this standard is met. However, the Goal 9 rule and ORS 197.712 both require that local governments provide "at least" an adequate number of suitable industrial and commercial sites to meet employment needs over the next 20 years. See discussion under Goal 9, above.

c. Conversion Factor 3

- (3) LCDC goals or the acknowledged comprehensive plan.

Woodburn must address each applicable Statewide Planning Goal as indicated in this memorandum.

d. Conversion Factor 4

- (4) Encouragement of development within urban areas before conversion of urbanizable areas.

Here, it is important that Woodburn identify measures it has adopted to encourage development in urban areas before moving into urbanizable areas. Such measures typically include annexation policies, adequate public facilities policies, large-lot holding zones and the like. Findings addressing this factor should cross reference Goal 14 Locational Factor 4 findings that explain why needed uses cannot be accommodated within the existing UGB/urban area.

Summary & Conclusions

If the City of Woodburn decides to make major plan amendments to meet its economic development objectives, it will take approximately two years to complete the necessary planning studies, effectively involve citizens, and coordinate with affected agencies.

Each of Oregon's applicable Statewide Planning Goals must be addressed. The plan amendment process is complicated by the fact that some goals are more important than others. Certain goals – Goals 2 (Land Use Planning), 9 (Economy of the State), 10 (Housing), 11 (Public Facilities and Services), 12 (Transportation) and 14 (Urbanization) – will be especially important for comprehensive plan and land use regulation amendments that propose to increase the supply of industrial land. Other goals – Goals 5, 6, 7, 8 and 13 – are relatively unimportant but still need to be addressed. Those goals that will be more important in the plan amendment process have administrative rules that are much more detailed – and demanding – than the goals themselves.

The Economic Opportunities Analysis (EOA) is the critical first step in determining whether there is need to amend the Comprehensive Plan. The EOA must identify, with specificity, the types of firms and industrial development opportunities the city would like to attract. Goal 9 (Economy of the State) and Goal 14 (Urbanization) each require that sufficient suitable land be planned within the urban growth boundary to meet the city's need for industrial and commercial land for the next 20 years.

Then, the siting needs of targeted industries (or industrial parks that accommodate targeted industries) must be identified – in terms site size, location, serviceability, topography and the like. The more specific the site suitability criteria, the less likely that one industrial site can be substituted for another. Next, there must be a careful comparison of these site suitability criteria with suitable sites that are already within the UGB, appropriately planned and zoned. If there is a mismatch between the what is needed and what is available, then the base case for a plan amendment can be made.

Both Goal 9 (Economy of the State) and Goal 11 (Public Facilities and Services) require that the city demonstrate that it can provide services to needed industrial sites. This requires an examination of needed projects as well as the city's financial ability to provide these services. Unless it is feasible to provide needed services (stormwater drainage, sanitary sewer, water and transportation), then the sites are not considered "suitable" under Goal 9 or ORS 197.712.

Still, this analysis is just the beginning. It is possible that existing industrial land could be re-planned and re-zoned to achieve the required match. For example, if there is a shortage of light industrial land but a surplus of heavy industrial land that otherwise meets site suitability criteria, a re-zoning may solve the problem without a UGB amendment. If the shortage of suitable industrial sites persists, the next step is to carefully examine other land *within the UGB* that could be re-planned to meet the need – without resulting in a shortage. Residential land is the most likely possibility. However, Goal 10 (Housing) does not allow the city to fall below 20-year land need for housing. So, there must be a careful analysis of needed housing by type, compared

with buildable land by zoning district, to determine whether residential land can be rezoned to meet industrial needs. This is one of the reasons why we are also examining housing needs again, to make sure that there is a fit between anticipated household incomes and housing types in Woodburn.

Goal 14 (Urbanization) comes into play after the need for land to accommodate public facilities, housing and employment has been determined. This goal, and ORS 197.196, requires the City to examine whether residential land might be zoned more intensively, say, at 10 units per acre rather than eight. Increasing residential density might free up some of the residential land supply to meet industrial needs. *The city can seek land outside the UGB only if all other options for meeting the specific siting needs of targeted industries within the growth boundary have been thoroughly examined.*

If amendments to the urban growth boundary can still be justified, then these amendments are likely to face a higher level of scrutiny from state agencies and land use interest groups. Goals 2 (Land Use Planning), 14 (Urbanization—Factors 3 through 7) and ORS 197.198 establish “priorities” for bringing land into the UGB. High value farmland is dead last – and Woodburn is surrounded by high value farmland. So, if there are any available “exceptions areas” (*i.e.*, land not zoned for exclusive farm use), then the city must look there first. Only if there are no reasonable alternatives to converting agricultural land to residential use can the city justify a “reasons exception” to bring farmland into the UGB.

If there is still an unmet need for a certain type of industrial land that cannot be met within the UGB, the city must bring in lower quality agricultural land first. Agricultural land with class I soils are the lowest priority for inclusion because it is the best quality farmland. If it happens that the most suitable site—the site with the best access and lowest cost of providing public facilities—is also the best farmland, the burden of proof rises. There must be a very good case for including this land in the UGB, or the LCDC is unlikely to support the amendment in the face of almost certain opposition from agricultural land conservationists.

Finally, even if all of these standards are met, there is still the “060” issue. Increasingly, ODOT has enforced the Transportation Planning Rule requirement that plan amendments not “significantly affect” a state transportation facility. And, since UGB amendments necessarily mean increased traffic – and in Woodburn this means increased traffic to Interstate 5 or Highway 99 – ODOT involvement is assured. The Land Use Board of Appeals has held that (1) a plan amendment that reduces the volume to capacity ratio over ODOT’s established maximum “significantly affects” a transportation facility; and (2) OAR 660-12-0060 also applies where the amendment would “further degrade” an already failing (*i.e.*, below standard) facility. In reaching this decision, LUBA relied on the 1999 *Oregon Highway Plan*, Policy 1F.6, which reads:

“...for purposes of evaluating amendments to...acknowledged comprehensive plans and land use regulations subject to OAR 660-012-0060, in situations where the [v/c ratio] for a highway segment, intersection or interchange is above the standards [established in the OHP] and transportation improvements are not planned within the planning horizon [usually, the next 20 years] to bring performance to standard, the performance standard is

to avoid further degradation. If an amendment...to an acknowledged comprehensive plan or land use regulation increases the [v/c ratio] further, it will significantly affect a transportation facility.”

For these reasons, Goal 12 is likely to be the deepest pitfall, because major improvements to Interstate 5, Highway 99, or both, will likely be necessary to serve increased traffic resulting from plan amendments necessary to meet identified site suitability needs.

In summary, if the city amends its comprehensive plan and land use regulations to provide serviced sites that meet identified needs of targeted industries, these amendments must comply with the procedural and substantive requirements of each of the applicable Statewide Planning Goals and their accompanying administrative rules. Statewide Planning Goals 2, 9, 10, 11, 12 and 14 must all be met, and each imposes demanding requirements that must be systematically and consistently addressed in any plan amendment process.

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In summary, if the city amends its comprehensive plan and land use regulations to provide serviced sites that meet identified needs of targeted industries, these amendments must comply with the procedural and substantive requirements of each of the applicable Statewide Planning Goals and their accompanying administrative rules. Statewide Planning Goals 2, 9, 10, 11, 12 and 14 must all be met, and each imposes demanding requirements that must be systematically and consistently addressed in any plan amendment process.

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EXHIBIT 1-B

1-B

**CITY OF WOODBURN
PUBLIC FACILITIES PLAN**

**(City of Woodburn,
October 2005)**

CITY OF WOODBURN
2005 PUBLIC FACILITIES PLAN

Prepared by
City of Woodburn
October 2005

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APPENDICES

Appendices are located at the end of this document.

Appendix A: Capital Improvements Plan

Appendix B: Public Facility Maps for UGB Expansion Areas

Appendix C: Planning Level Analysis of Public Facilities to Serve UGB Study Areas

FIGURES

The figures listed below are referenced in this document and can be found in the relevant facilities master plan.

Water Plan

Figure 10-11 Wellhead Treatment Alternative

Sanitary Sewer Plan

Figure 7-2 Layout of WWTP Facilities

Figure 2 Sewerage Collection System

Figure 3 Sewerage Service Area

Figure 1 Woodburn Wastewater Facilities Plan Sewerage Service Area

Storm Water Plan

Figure 1 Senecal & Mill Creek, Drainage Basin Boundaries

Figure 4 Senecal Creek Drainage Subbasins

Figure 5 Mill Creek Drainage Subbasins

Appendix Woodburn Storm Drain Inventory, June 1999

WOODBURN PUBLIC FACILITIES PLAN (2005)

INTRODUCTION

The Public Facilities Plan (PFP) identifies major infrastructure projects necessary to serve the Year 2020 projected population of 34,919¹ and examines the effect on utility and transportation infrastructure resulting from 2005 expansion of the Urban Growth Boundary (UGB) of the City of Woodburn. As required by state statute, four elements have been studied: Domestic Water, Sanitary Sewer, Storm Drainage, and Transportation. Information for projects within the pre-2005 UGB was derived from existing Facilities Plans, updating where necessary.

In order to assess relative service costs and efficiency for alternative UGB expansion areas, the City's initial effort involved characterization of improvements and extensions that would be necessary to serve eight Study Areas surrounding the existing (pre-2005) UGB. These investigations were conceptual and the data used in comparisons between the Study Areas were preliminary in nature. The results of the initial work are contained in Appendix C.

A more comprehensive analysis was performed on four expansion areas recommended by the Planning Commission, identified as the North, South, Southwest, and West Expansion Areas. Tables summarizing project timing and costs for each area have been included in the body of the Public Facilities Plan. Maps showing the locations of infrastructure elements (Water, Sanitary Sewer, and Storm Drainage) for Southwest and North Areas (areas with high value farmland) are included in Appendix B. Transportation projects and maps were derived from the Woodburn Transportation Systems Plan (TSP), which also was updated in 2005.

Service Area Characteristics

Woodburn is located in Oregon's Willamette Valley approximately 17 miles north of Salem and 30 miles south of Portland in the Pudding River basin. The topography of the service area slopes slightly to the northeast. The area is relatively flat with an elevation differential of only 50 feet, ranging 150 to 200 feet above sea level.

The main drainage through the City is Mill Creek, which drains to the Pudding River. Senecal Creek drains a small portion of the City's UGB area west of I-5. A very small portion of the east part of the City (east of highway 99E) naturally drains directly to the Pudding River.

¹ In an exercise of caution, Woodburn's facility master plans are designed to serve somewhat higher population growth than adopted in the 2005 Woodburn Comprehensive Plan. The City has incorporated a margin of error; if actual population growth exceeds the coordinated population projection of 34,919 before 2020, the City will be able to accommodate this increased growth without further amendment to projects identified in facility master plans.

The climate is mild with wet winters and dry summers. Rainfall averages about 41 inches per year and one year in ten will exceed 51 inches. The wettest months are usually November, December and January with almost 20 inches of rainfall occurring during that time.

The soils in the area are of two associations, Amity silt loam and Woodburn silt loam. Both of these formations are found throughout the City in all areas except drainage channels. The Amity series consists of poorly drained soils formed in mixed alluvial silts. The layer is general 17 inches thick overlaying a 7-inch silt loam subsurface layer and a 13-inch silty clay loam subsoil. The Woodburn series consists of moderately well drained soils formed in silty alluvium and loess. The 17-inch surface layer overlays 37 inches of subsoil and a silt loam substratum to a depth of 68 inches. The course of Mill Creek is etched in Bashaw clay and Dayton soils and terrace escarpment are also found in the service area.

The geology of the area consists of Troutdale formation materials and Willamette silts overlaying Columbia River basalt. Depth to basalt is unknown but thought to be approximately 600 feet. The Troutdale formation consists of alternate layers of clay, silt, sand and gravel. The Willamette silt formation consists of stratified silt, sandy silt, clayey silt and silty clay and has poor drainage characteristics. The City is located in a Seismic Zone 3.

Two major highways traverse the City; Interstate 5 along the west side of the City and 99E along the east side of the City. Both routes run generally north-south through Woodburn. Oregon Highway 214 is an east-west route through the City; Highway 211 connects Woodburn to Molalla.

Woodburn is bisected by the Union Pacific Railroad main line. The railroad extends north-south through Woodburn and parallels Front Street through the City. Willamette Valley Railroad uses spur tracks that parallel Front Street and a line that proceeds east from Front Street along Cleveland Street.

WATER PLAN

HDR Engineering, Inc. prepared a water master plan for the City of Woodburn. It was first prepared in 1997 and updated in 2001. The 2001 update provides a 20-year plan for the water system through the year 2020. The plan was based on a projected permanent population potential of 38,586, which exceeds the coordinated Year 2020 population projection of 34,919. The City has 5,380 single family, multi-family, commercial, industrial, and public connections. The current service area of the water system is inside the City limits, although the service area will expand as annexations to the City occur.

The Water Master Plan assumed that all growth would occur within the current UGB (4050 acres). The PFP identifies additional projects necessary to serve the expanded UGB. Some projects identified during preparation of the Water Master Plan have been listed and entered into the Capital Improvement Plan (CIP). The CIP is a six-year plan

that focuses on improvements within the existing City Limits. As land is annexed to the City, the CIP will be amended to incorporate and set priorities among additional projects. For example, the City anticipates that industrial land will be annexed to the City *in the short term*. Although most improvements necessary to serve expansion areas will be paid for by the developer, the CIP will be amended on an annual basis to include sanitary, sewer, water, storm drainage and transportation projects necessary to serve recently annexed areas.

Projected Population

When the Water plan was prepared, it was based on a projected year 2020 permanent population of 38,586. Also considered in the water plan were 4,099 projected seasonal workers.

Water Source

Water Rights

The City of Woodburn obtains water entirely from groundwater. Woodburn has existing water rights within its certified service area of up to 13.25 mgd (20.45 cfs). Table 1 shows a water rights summary from the Water Master Plan.

Table 1 City of Woodburn Water Rights Summary Certificates of Water Rights (Supply)			
WRD Designation	Amount (GPM)	Well Name	Well No.
Permit No. G-10931	1000	Centennial	Well 10
Permit No. G-11921	1400	Donner	Well 9
Permit No. G-11922	2100	Nazarene	Well 7
Permit No G-12029	600	Astor Way	Well 11
Cert. No. 36537	500	Senior Estate	
Cert. No. 36538	750	King Way	Well A
Cert. No. 56379	750	Legion Park	Well 8
Regis. GR 2267	750	Shop No. 1	Well 1
Regis. GR 2268	300	Shop No. 2	Well 2
Regis. GR 2269	500	Library	Well 3
Regis. GR 2270	500	Settlemier	Well 4
Regis. GR 3815	300	Old SPRR	Well 5
TOTAL	9,200 gpm (13.25 mgd)		

The Water Master Plan found that Woodburn has sufficient water rights to meet the projected water demands through the year 2020.

Wells

The City's seven active wells tap the Troutdale aquifer, a large semi-confined aquifer. It is anticipated that the City will continue to utilize this aquifer as the sole source of water. Active wells are listed in Table 2.

No.	Description	Capacity	Function
3	Library	500 gpm Depth = 198'	Provides water to the central part of Woodburn
4	Settlemier Well located at the intersection of West Hayes St. and Settlemier Avenue. Drilled in 1952	600 gpm Depth = 183'	Provides water to the central part of Woodburn
7	Nazarene Well located on Woodland Avenue. Drilled in 1967	1,000 gpm Depth = 333'	Provides water to the northwest part of Woodburn
8	Legion Park Well located on Alexandra Avenue. Drilled in 1974	868 gpm Depth = 194'	Provides water to the southern area of Woodburn
9	Warren Donner Well located on Country Club Road	1,000 gpm Depth = 280'	Provides water to the north central area of Woodburn
10	Centennial Well located 2205 National Way. Drilled in 1988	1,000 gpm Depth = 279'	Provides water to the north central area of Woodburn
11	Astor Way located at 1200 Astor Way. Drilled in 1989	1000 gpm Depth = 288'	Provides water to the north central area of Woodburn

The 2001 Water Master Plan found that the City needed to install six new wells in the west and southwest area of the City to increase the total well capacity to approximately 12 mgd. To stay ahead of growth in water demands, these wells were programmed to be installed at an approximate rate of one well every five years. The proposed well projects from the Master Plan are listed in Table 3 as follows (estimated in year 2000 dollars):

Project Description	Year of Improvement	Estimated Costs (2000 Dollars)
Drill 2 wells at South Woodburn site	2002	\$680,000
Drill 2 wells at S. Woodburn site	2015	\$425,000
Drill 2 wells at West Woodburn site	2022	\$335,000
Totals (2000 Dollars)		\$1,440,000

Following the recommendations of the Water Master Plan, Woodburn developed two new wells in 2003 at south Woodburn sites as follows:

- Well 12 at 828 Parr Road
- Well 13 at 515 Settlemier Avenue

During the facility planning process for the water treatment facilities, it was determined that the cost of connection of well 8 to the National Way Treatment Plant

were excessive and there were further concerns regarding the construction and future water production capability of Well 8. The decision was made to construct a new well in the northern area of the City that would allow simplified transmission line connection and be constructed in a manner to provide for a more reliable long-term water source. Subsequently, Well 14 was constructed at 3015 National Way, and a raw water transmission line connects this well to the National Way Treatment Plant. The locations of the treatment facilities within the system are shown on Figure 10-11.

Source Water Protection Plan

Oregon Department of Human Services and Department of Environmental Quality have developed a Source Water Protection Plan for the City. The plan inventories potential sources of contamination, establishes best management practices for industries within the influence zone of the City's wells, allows the City to develop ordinances to provide protection of the aquifer, and maps the flow patterns of the aquifers. The Troutdale aquifer, from which the City's wells obtain the City's drinking water supply, is not a critical or restrictively classified groundwater area. The City does not at this time plan to request certification of the delineations in the Source Water Protection Plan for Statewide Planning Goal 5 purposes.

Water Demand

Existing Demand

Table 4 contains information from 1992 to 1995 from metering records of the average daily water demand (ADD) and the maximum daily water demand (MDD).

Table 4 Woodburn Yearly Water Demand ⁽¹⁾			
	Average Daily Demand	Maximum Daily Demand⁽²⁾	
Year	MGD	MGD	Month in which MDD Occurred
1992	1.89	4.36	June
1993	1.73	3.88	August
1994	1.91	4.45	July
1995	1.88	4.57	July
1996	1.88	4.21	July
1997	1.89	4.26	August
1998	2.01	4.41	July
1999	2.13	4.46	July
2000	2.18	5.30	August
2001	2.19	4.27	July
2002	2.31	4.86	August
2003	2.28	5.25	July
2004	2.38	5.43	July

⁽¹⁾ Based on metering records
⁽²⁾ Based on ratio of MDD/ADD from pumping records

The following table shows the total water demand by land use category, the total number of connections (in 1996) by land use category, the water demand by each

connection by land use category and the percent of total water demand by land use category.

Demand Category	Total Demand (gpd)	No. of Connections (1)	Unit demand (2) (gpd/connection)	Percent of Total Demand (%)
Single Family Residential	1,098,000	4,176	266	62.00
Multi-Family Residential	310,400	127	2,440	17.00
Commercial	315,800	386	820	18.00
Industrial	520	3	173	0.03
City Owned	38,300	56	697	2.00
Fire Service	1,300	53	26	0.07
Other (Flushing)*	13,800			0.90
TOTAL	1,778,000	4,800		100.00

(1) As of April 1996
 (2) Based on number of connections in June 1995 and demand from June 1994
 (3) gpd = gallon per day

* Does not include "Unaccounted for" water.

Single-family residences used approximately 266 gpd per connection. Multiple family residential uses have from 2 to 192 dwelling units per connection, with a median of 12. Records show that the water demand per multi-family connection is higher than for single-family uses. The 2001 Water Master Plan estimated that water demand per capita was 97 gallons per capita.

As the table indicates, about 80 percent of the total water demand is from residential uses. Commercial uses account for 18 percent, City connections for 2 percent and less than one percent comes from industrial uses and fire service.

All water systems have a certain amount of water that is produced by the system that cannot be accounted for by billing records. This is termed "unaccounted-for water" and it results from un-metered demands, meter inaccuracies, leakage, hydrant and line flushing and testing, and authorized or unauthorized hydrant use. Typical water systems, nationwide, average from 5 to 10 percent unaccounted-for water.

Woodburn conducts annual audits of pumping and water consumption records. Data from 1986 through 2004 were summarized in Table 6 as follows:

Year	Unaccounted for Water	
	MG	Percent
1986 - 87	31.0	5
1987 - 88	30.9	5
1988 - 89	50.1	8
1989 - 90	67.0	11
1990 - 91	50.4	8
1991 - 92	86.3	11
1992 - 93	64.4	10
1993 - 94	55.3	8
1994 - 95	56.6	9
1995-96	48.1	7
1996-97	41.2	6
1997-98	55.2	8
1998-99	58.7	8
1999-00	46.6	6
2000-01	71.8	9
2001-02	50.1	6
2002-03	58.9	7
2003-04	43.5	5
Average	54.7	8

The unaccounted-for water in Woodburn ranges from 5 to 11 percent of production with a median and average of 8 percent. Woodburn gives leaking pipelines priority for replacement in its distribution system maintenance budget.

Projected Year 2020 Demand

The 2001 Water Master Plan was based on moderate measures to conserve water. The plan expects to reduce demand between 5 and 8 percent, including the following:

- Leak detection and water line repair and upgrading.
- Annual water audit to calculate the amount of unaccounted-for water.
- Metering of all service connections.
- A public education program, using bill inserts to publicize the need for water conservation.
- Technical assistance measures including a bill showing the consumption history and customer assistance for questions related to water conservation.
- Promotion of conservation for nurseries and park department facilities and low water demand landscaping in all retail customer classes.
- Increasing Block Structure for water rates.

The Water Master Plan estimated that by the year 2020 average day demands (ADD) may increase to 4.47 million gallons per day and maximum day demand (MDD) may increase to 10.28 million gallons per day.

Table 7 Water Demand Projections				
Year	No Conservation Impact		Moderate Conservation Impact	
	ADD (mgd)	MDD (mgd)	ADD (mgd)	MDD (mgd)
2010	2.96	6.81	2.73	6.28
2015	3.51	8.07	3.23	7.43
2020	4.14	9.52	3.82	8.79
2025	4.70	10.82	4.36	10.02
2030	5.25	12.08	4.86	11.18
2035	5.74	13.20	5.32	12.23
2040	6.17	14.19	5.71	13.14

Table 8 Water Production Capability Projections				
Year	No Conservation Impact		Moderate Conservation Impact	
	ADD (mgd)	MDD (mgd)	ADD (mgd)	MDD (mgd)
2010	3.20	7.35	2.95	6.78
2015	3.79	8.72	3.49	8.03
2020	4.47	10.28	4.130	9.50
2025	5.08	11.68	4.70	10.82
2030	5.67	13.05	5.25	12.08
2035	6.20	14.26	5.74	13.20
2040	6.66	15.32	6.17	14.19

Treatment

Historically, the City of Woodburn provided no water treatment or disinfection because the quality of water derived from City wells has proven not to require disinfection and neither state nor federal water regulations require treatment or disinfection for wells. Increasing concerns with the odor, taste and staining problems generated by iron and manganese in the groundwater, a potential decrease in the federal arsenic standard and potential regulation of radon led the City to update its master plan and develop a treatment plan for the City's water supply. Woodburn complies with the parts of the Safe Drinking Act that are currently in force and apply to the City.

Iron and manganese levels in the City's water source have caused numerous complaints about the aesthetic quality of the water. To eliminate the iron and manganese problems, the Water Master Plan recommended that the City construct neighborhood treatment plants.

Table 9 shows necessary improvements to the water treatment system, their timing and their costs.

Table 9 Woodburn Water Master Plan Treatment System Summary of Budgetary Cost Estimates		
Treatment Component	Year of Improvement	Estimated Costs (2000 Dollars)
Raw Water Transmission Pipelines	2003	\$1,079,000
Raw Water Transmission Pipelines	2015	\$413,000
Raw Water Transmission Pipelines	2022	\$195,000
Reservoir Improvements	2004	\$4,127,000
Drill 2 Wells at S. Woodburn Site	2002	\$680,000
Drill 2 Wells at S. Woodburn site	2015	\$425,000
Drill 2 Wells at W. Woodburn Site	2022	\$335,000
Construct three 2.7 MGD Treatment Plants	2005	\$10,288,000
S. Woodburn Treatment Plant Expansion	2015	\$1,500,000
Construct W. Woodburn Treatment Plant	2022	\$1,720,000
	Totals (2000 Dollars)	\$20,762,000

The City is nearing completion of three neighborhood treatment plants as recommended in the Water Master Plan. The three treatment plants are located at well sites on National Way, Country Club Road, and Parr Road. These treatment facilities treat water from wells at their sites and water transmitted from nearby wells through raw water transmission lines constructed when the treatment plants were constructed in 2003-2004. The locations of the treatment facilities are shown on Figure 10-11.

Storage

Water system storage is considered to be comprised of three elements: equalizing, fire flow, and emergency. "Equalizing storage" provides water supply when customer demand exceeds the capacity of the wells and pumps to produce water flow. "Fire flow reserves" provides the volume of water needed to provide the demand for fire flow for a fire having a finite duration. "Emergency storage" supplies water when a portion of the water production system is out of commission. The same volume of storage can serve all three purposes. The Water Master Plan projects that in the year 2020 these storage requirements will be as follows:

- Emergency standby 1,400,000 Gal
- Fire Flow Reserves 1,500,000 Gal
- Equalizing Storage 2,230,000 Gal

The City has an elevated reservoir located near Broadway and Front Street. It is 130-feet high, was built in 1965 and has a capacity of 750,000 gallons. This reservoir is in good condition and is planned to continue in service without substantial repair during the

planning period. An older, smaller tank located next to this tank is scheduled for demolition.

In normal operating conditions, pressure within the water system is established by the elevated reservoirs. When demand in the system draws down the reservoir level, pumps at the wells are turned on to pump into the system and to replenish the reservoir supply. If the level in the reservoir continues to drop after the first well pump has turned on, more pumps receive signals to turn on and pump into the system until the tank water level reaches pre-determined shutoff level.

When the treatment plant becomes operational, the pressure within the water system will be established by the larger elevated reservoir. Backup pressure, which had been from the smaller elevated reservoir, will now be established from booster pumps at each of the treatment plant sites and pressure sensors located at various locations in the City. The booster plant pumps will operate to maintain water levels in the elevated reservoir and to supply demands placed upon the system by users. If the elevated reservoir is out of service for maintenance or other reasons, the treatment plant booster pumps and pressure sensor system will maintain desired system pressure.

The 2001 Water Master Plan found that there was a significant deficiency in water storage capacity. The existing storage was sufficient to equalize demand within the system and to provide minimal fire flow reserves, but does not provide emergency standby storage nor satisfy ISO fire flow standards. The plan recommends that the City construct 4.4 million gallons of new storage capacity, to increase the total storage volume to 5.15 million gallons, comprised of 2.25 million gallons equalizing and 2.9 million gallons of emergency-standby/fire flow reserve storage. The plan recommends that the storage be provided in two reservoirs, each providing 2.2 million gallons and that the reservoirs be located at the proposed treatment plant sites. These reservoirs were recommended to be grade-level facilities.

In the design review process for treatment facility construction, the decision was made to place reservoirs at all three treatment plant locations. The decision was made to allow the reservoirs to reduce levels of radon in the City groundwater supply. Although not finalized, the proposed federal limit on radon in drinking water is exceeded in some City wells. The City decided to place radon reduction systems in reservoirs. To fully treat all water supplies for radon required a reservoir at each treatment site. Reservoir sizes were 2.7 million gallons at Parr Road, 0.3 million gallons at Country Club Road and 1.7 million gallons at National Way. With the 0.75 million gallons at the existing reservoir, the City has a total of 5.45 million gallons, which exceeds the projected 2020 master plan requirement of 5.13 million gallons of storage. The location of these reservoirs is shown on Figure 10-11.

Grade level storage utilizes pumps to move water into the distribution system and work with the elevated storage reservoir to maintain water pressure. The pumps need to be large enough to satisfy anticipated peak demand flow rates. They also need to have an automated auxiliary power supply to assure water is available during power failure. All three of the treatment plants have emergency generators capable of plant operation as

well as operation of the wells located at each of the treatment plant sites. The City has portable generators that can be used to provide emergency power to other wells.

In 2003-2005 the City is constructing a new storage facility at each of the three new treatment plants. The locations of the storage facilities within the system are shown on Figure 10-11.

Water Distribution System

There are approximately 66 miles of transmission and distribution piping, ranging from 1-inch to 18-inches in diameter. Approximately four miles are piping with sizes of 4-inches or less. Substandard pipe of 1-inch and 2-inch diameter is routinely being replaced. The majority of the pipe within the service area is 6-inch or 8-inch diameter service piping. (The City is not required to address these segments of the distribution system in the public facilities plan.)

A summary of the quantity of pipe by diameter is illustrated in Table 10 as follows:

Pipe Size	Total Length of Pipe (feet)
4"	14,034
6"	153,201
8"	188,483
10"	17,670
12"	65,958
14"	8,419
16"	1,425
18"	2,336

The majority of the pipe in the system is ductile or cast iron. There is a significant amount of asbestos-cement pipe in the Senior Estates area. This asbestos-cement pipe has not caused any water quality problems. The City routinely repairs and replaces older leaking or undersized pipes as part of an annual maintenance program. These pipe repairs and replacements are performed by water division personnel or through contracts for projects listed in the City's capital improvement program.

Pressure within the distribution system is generally between 50 and 60 psi. The water master plan did not identify significant pressure deficiencies during maximum day flows. When water is pumped from the distribution system to fight a fire, water pressure within the system can be reduced. State administrative rules require the system maintain a minimum pressure of 20 psi. Pumping systems installed as a part of the water treatment project (at each of three treatment plants) will allow this requirement to be met during a fire event.

The City requires the maximum day demand plus fire flow for a proposed development to be calculated. Demand must not exceed available supply. Calculated available fire flow is compared to the standards in Table 11, which includes the Insurance Services Office (ISO) standards for fire flow.

Table 11 Fire Flow Demands by Zoning Classification (All flows are calculated on the Maximum Day)		
Zoning Classification	Minimum Required Fire Flow (gpm)	Duration (Hours)
Residential (<12 units/acre)	1,000	2
Residential (>12 units/acre)	3,000	3
Commercial	3,000	4
Public Use	4,000	4
Industrial	5,000	5

If the available fire flow is less than the required value, the developer may be required to either modify the proposed method of construction to reduce the required fire flow or make system improvements to increase the available fire flow in the water system to the development.

The 2001 Water Master Plan recommended replacing inadequate segments of the water distribution system before emergency situations occur or before capacity problems arise. The City will annually fund an ongoing substandard main replacement program. The Water Master Plan established priorities for replacing pipes as follows:

- Pipes in areas of related frequent customer complaints.
- Leaking pipes.
- Pipes identified by either maintenance or operations as problem pipes.
- Pipes four inches or less in diameter, and in areas that have the potential for growth.
- Undersized transmission mains.
- Aged Asbestos cement pipe.
- Aged steel or cast iron pipe.
- Lead joint pipes.

As areas within the UGB develop, the City will require developers to extend the transmission mains into these areas and make any improvements necessary to the distribution system. Although the 2001 Water Master Plan did not include project costs for distribution improvements in areas to be developed in the future, Table 13 describes water system improvements, costs and timing necessary to serve the expanded Woodburn UGB. As areas annex to the City and develop, the City will determine the exact configuration of the transmission pipe system.

Telemetry and Controls

The existing pumping system has an antiquated control system based on mercury switch technology. The treatment plants will utilize a modern Supervisory Control and Data Acquisition (SCADA) system. The SCADA system will automate operation of each individual facility, enable monitoring and control from a central location, and provide reliable communication between sites. The SCADA system will optimize water production and control and alarm notification. An operations center at the water division shop will be the central base for the computer SCADA

system. Existing water wells will be incorporated into the SCADA system. Communication between sites and the operations center will be through a radio telemetry system.

Short Term Water Projects

Table 12 shows the water distribution system projects in the Capital Improvement Program for the next six years. Note that:

- 1.) CIP projects occur within the existing (2005) utility service area. Utility service areas are coincident with City Limits.
- 2.) Service areas change as annexations occur, because the City must demonstrate that adequate services are available to serve potential annexation.
- 3.) Projects typically are added to the CIP when land is annexed to the City. Thus, projects not identified on the CIP are possible within the short-term (next five years).
- 4.) Projects not listed on CIP may be developer-sponsored, grant-funded, or financed by other means, as City may approve.
- 5.) See Table 13 for projects required to serve land within the expanded Urban Growth Boundary.

Project Number	Project	2003-04	2004-05	2005-06	2006-07	2006-08	2008-09
1	Hwy 214 widening			\$44,000			
2	Laurel Avenue (replace line)		\$46,000				
3	Hwy 99E: Tomlin to Laurel		\$22,000				
4	Hwy 99E: Laurel to Aztec		\$16,500				
5	99 E at Silverton Road (bore)				\$110,000		
6	N First Street/N. Second (loop)			\$18,700			
7	N. Fifth Street (replace line)		\$44,000				
8	Hwy 214 A Mill creek						
A	Bore	\$55,000					
B	Loop line installation	\$132,000					
9	Hwy 99E: Blaine to Aztec			\$44,000			
10	Hwy 99 E: Blaine to Lincoln			\$66,000			
11	Ogle/Parr/S. Boones Ferry			\$96,000			
12	McKinley St. Line Capacity Imp.	\$22,000					

**Table 12
Planned Water Improvement Projects
Woodburn Capital Improvements Program
Fiscal Years 2003 – 2009**

Project Number	Project	2003-04	2004-05	2005-06	2006-07	2006-08	2008-09
13	Lincoln to Hardcastle (loop)				\$132,000		
14	99 E South (New Line)				\$132,000		
15	Silverton Road (Loop)				\$44,000		
16	Water System Rehabilitation						
17	Water Treatment	\$9 million	\$6.8 million	\$1million			
18	Hwy 214/99E Loop Line					\$100,000	
19	Hazelnut Dr. -n Replace Bridge Line					\$55,000	
20	Brown street - Line Rehab (materials only)	\$27,500					
21	Parr Road to Evergreen Loop						
22	Woodburn Village Line Replacement		\$61,600				

UGB Expansion Area Projects

Table 13 identifies short- and intermediate-term projects necessary to serve 2005 UGB expansion areas.

**Table 13
Project List - Water Plan**

Minor distribution lines within expansion areas are not included
Refer to Maps for generalized locations of Trunk Lines

0-5 Year Projects

Expansion Area	Location	Description	LF	Unit \$	Estimated Cost	Funding
<u>Southwest Industrial</u>						
	Looped Line - NW of I-5 to SE of I-5	12-inch Water Main	12,500	75	\$937,500	SDC/Developer /CIP
	Woodburn Town Center	12-inch Water Main (Offsite)	8,200	75	\$615,000	Developer
	Parr Road and Other	12-inch Water Main	9,700	75	\$727,500	SDC/Developer /CIP

North Area

East of Boone Ferry	12-inch Water Main	8,900	75	\$667,500	SDC/Developer /CIP
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6-15 Year Projects

Southwest Industrial

Looped Line	12-inch Water Main	5,900	75	\$442,500	SDC/Developer /CIP
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Western Exception Area

Arney Rd to Butteville Rd.	12-inch Water Main	4,500	75	\$337,500	SDC/Developer /CIP
Butteville Road to POC on Hwy 214 West of Willow Lane	12-inch Water Main	4,800	75	\$360,000	SDC/Developer /CIP

North Area

South of Crosby	12-inch Water Main	8,950	75	\$671,250	SDC/Developer /CIP
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South Area

Looped (99E to Settlemier)	12-inch Water Main	10,800	75	\$810,000	SDC/Developer /CIP
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Funding

The City allocates its water budget into five funds: Water fund, Water Well Construction Fund, Water Equipment Replacement Reserve Fund, and the Water System Development Trust Fund. The available sources of revenues come from water user fees, service fees, interest revenues, system development charges and miscellaneous revenues.

The City last completed a rate study in 1999. The purpose of the study was to determine the rates and system development charges that would be necessary to fund needed capital improvements and to ensure the ongoing fiscal health of the water system. The study also ensured that required increases were equitable in terms of what each class of user pays. The rates and charges determined were to provide revenue for capital improvements and for operation of the water supply, treatment, and distribution system.

Water rates were determined utilizing a cost-of-service or functional allocation of costs. The intent of this allocation is to recover revenue from classes of customers according to the demands that they place on the system. Customer classifications included single-family residential, multi-family residential, commercial, industrial, and fire service in recognition of the different demands placed by each of the classifications. Single-family residential, the largest water user, includes a fixed rate meter charge and a three tier increasing block volume rate. The volume block rate increased at quantities equal to

average winter and summer water use. Other classifications of users were charged a fixed meter charge and a single volume rate.

Service fees are evaluated annually and are based primarily on the cost to provide the service. The system development charge is the sum of a calculated reimbursement fee and improvement fee. The reimbursement fee recovers costs associated with capital improvements already constructed or under construction. The improvement fee recovers costs associated with capital improvements to be constructed in the future. The basis for the fee is peak daily water demand.

SANITARY SEWER PLAN

In November 1993, the City of Woodburn was notified by the U.S. Environmental Protection Agency (EPA) and the Oregon Department of Environmental Quality (DEQ) to develop a plan to meet the more stringent Publicly Owned Treatment Works (POTW) effluent limits developed for the Pudding River. The volume of water in the Pudding River, during the summer months (July and August), is so low the river cannot dilute the treatment plant effluent sufficiently. Low flows result in oxygen levels, needed by certain aquatic life, to be below acceptable limits. The inability to maintain sufficient oxygen levels is the main reason the Pudding River has been classified as a water-quality-limited stream. Total maximum daily loads were established for the Pudding River and waste load allocations set for the Woodburn POTW.

In response to DEQ notification, the City prepared and adopted the 1995 Wastewater Facilities Plan for its wastewater treatment and collection system. This plan is designed to guide operations and improvements to the City's treatment system through the year 2020. In addition to providing upgrade guidelines for the existing system, to meet regulatory requirements, the facilities plan provides for increasing the system's capacity to accommodate planned residential, commercial and industrial growth.

Additional efficiency is built into the plan by providing for phased construction of the improvements. The estimated cost of treatment facilities is divided into two phases. Phase 1 estimated costs (in 1998 dollars) are \$38.3 million; Phase 2 estimated costs (in 1998 dollars) are \$11.9 million. The plan will enable the City to look ahead to long-term needs through the year 2020, while implementing the improvements only as they are needed.

The 1995 Wastewater Facilities Plan was designed to 43,672 persons, and thus can readily accommodate the coordinated Year 2020 population project approved by Marion County (34,919). This projection was based on an average annual growth rate of 2.8%, whereas the Wastewater Facilities Plan utilized a growth rate of 3.4 percent. Based on this information, the existing Wastewater Facilities Plan will provide sufficient capacity for the 2005 UGB amendments and projected population growth through 2020. Table 13 identifies projects to serve the UGB as expanded in 2005. In fact, the master plan study area encompassed the area within the pre-2005 Woodburn UGB and potential UGB expansion areas that are now included within the 2005 UGB. Areas outside the UGB

were also included in the study for public health reasons. The potential also existed that other uses, such as trailer parks, outside the UGB could be served in the interest of public health.

On December 28, 2004, the U.S. Environmental Quality Protection Agency (EPA) and Oregon Department of Environmental Quality (DEQ) issued the City a National Pollutant Discharge Elimination System (NPDES) Permit. The compliance schedule with this permit requires the City to develop a plan and construct facilities for meeting the more stringent POTW effluent limits developed for the Pudding River. The treatment plant's wastewater effluent temperature/winter ammonia discharge is higher than can be directly discharged to the Pudding River during parts of the year. Increased river temperatures/winter ammonia levels have an adverse affect upon aquatic life. DEQ has established temporary temperature and winter ammonia limits until the establishment of total maximum daily loads for the Pudding River and waste load allocations are set for the Woodburn POTW. In response to the NPDES compliance schedule, the City will prepare a Wastewater Facilities Plan update for its wastewater treatment plant and collection system.

Treatment

Phase 1 of planned improvements to the wastewater treatment facility was completed in 2003. A diagram showing the physical layout of the treatment facility is shown in Figure 7-2 of the Wastewater Facilities Plan. Detailed descriptions and maps of the existing and proposed system also are included in the Wastewater Facilities Plan.

The hydraulic design capacity of the treatment plant is 3.3 mgd average dry weather flow, and 16 mgd peak hourly flow. The average total biochemical oxygen demand (BOD5) capacity is 6,500 lb/day BOD5. Currently, the plant has an average daily dry weather flow of 2.10 mgd, with average for the peak month being 2.9 mgd, and a wet weather peak hourly flow of 13 mgd. The plant average daily load of BOD5 is 4,500 lb/day and a maximum daily load of 10,575 lb/day.

No major improvements to the facility have been necessary since Phase 1 construction. Phase 2 improvements will be constructed when Phase 1 facilities near capacity which is anticipated to occur by 2008. As discussed above, Phase 1 and 2 improvements provide sufficient capacity for the 2005 urban growth boundary amendments and projected population growth through 2020.

Primary Collection System

The wastewater collection system conveys wastewater from residential, commercial, and industrial facilities to the treatment facility. A diagram showing the layout of the existing sewer trunk and interceptor lines and pump stations is shown in Figure 2 of the Wastewater Facilities Plan. Figure 3 shows the pre-2005 sewerage service area. The Woodburn sanitary sewerage collection system is composed of approximately 14.4 miles of trunk and interceptor line and 10 pump stations. Figure 1 shows the sewerage service area analyzed in the Wastewater Facilities Plan and shows areas considered for service expansion outside of the current UGB.

The Wastewater Facilities Plan provides a description of potential needed improvements to the collection system. The results of the hydraulic analysis showed that the Mill Creek Pump Station and Pump Station Numbers 2, 3, and 9 might require capacity upgrades. Construction of a replacement is currently nearing completion at Pump Station 9. In addition, the Front Street Interceptor through the downtown area to Lincoln Street and the trunkline along Highway 214 and Astor Way serving the northern portion of town will require improvement to increase capacity. Additional problems are not expected, but the problems listed above are expected to get worse. Further analysis of the condition of wastewater collection facilities is included in Volume II of the Wastewater Facilities Plan. The CIP shows projects that will be needed through the Year 2006 within the City Limits. (See Appendix A.)

UGB Expansion Area Projects

The 1995 Wastewater Facilities Plan which applied only to the pre-2005 UGB. In 2004-05, the Woodburn Public Works Department analyzed the ability of the City to provide wastewater facilities to eight potential UGB expansion areas. (See Appendix C.) The City used this analysis to rank alternative study areas to determine the relative cost-per-acre of providing sanitary sewer service. Generally, areas included within the UGB are less costly to serve than areas that were not included.

Table 1 analyzes the wastewater collection system improvements needed to serve adopted (2005) UGB expansion areas (i.e., portions of some study areas) and estimates the cost of constructing the improvements. In all cases, the City determined that the existing wastewater collection system would have sufficient capacity to efficiently serve the adopted expansion areas. Table 1 below identifies sanitary sewer projects necessary to serve 2005 UGB expansion areas.

**Table 1
Project List - Sanitary Sewer Plan**

Minor collection lines within expansion areas are not included
Refer to Maps for generalized locations of Trunk Lines

0-5 Year Projects

Expansion Area	Location	Description	Quantity	Unit \$	Estimated Cost	Funding
<u>Southwest Industrial</u>						
Cost Share (60%)	East of I-5	1200 LF 18-inch Line Upgrade	720	100	\$72,000	SDC/Developer /CIP
	NW of I-5	18-inch Trunk	1,500	100	\$150,000	SDC/Developer /CIP
	NW of I-5	12-inch Trunk	3,000	75	\$225,000	SDC/Developer /CIP
	NW of I-5	10-inch Trunk	1,200	55	\$66,000	SDC/Developer /CIP
	NW of I-5	8-inch	900	45	\$40,500	SDC/Developer /CIP
	SE of I-5	18-inch Trunk	3,000	100	\$300,000	SDC/Developer /CIP
	SE of I-5	12-inch Trunk	3,200	75	\$240,000	SDC/Developer /CIP

SE of I-5	8-inch	1,000	45	\$45,000	SDC/Developer /CIP
Woodburn Town Ctr.	24-inch	3,600	150	\$540,000	SDC/Developer /CIP
I-5 Pump Station	Minor Upgrade	1	50,000	\$50,000	SDC/Developer /CIP

North Area

East of Boones Ferry	8-inch gravity trunk sewer	1,325	45	\$59,625	SDC/Developer /CIP
East of Boones Ferry	12-inch gravity trunk sewer	4,160	65	\$270,400	SDC/Developer /CIP
N. Trunk/Hazelnut	Listed on CIP			\$210,000	Funded

6-15 Year Projects

Southwest Industrial

North of South Arterial	12-inch Trunk	3,200	75	\$240,000	SDC/Developer /CIP
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Western Exception Area

Cost Share (40%) East of I-5	1200 LF 18-inch Line Upgrade	480	100	\$48,000	SDC/Developer /CIP
Cost Share (40%) SW Industrial Area	3240 LF 12-inch Line Extension	1,296	75	\$97,200	SDC/Developer /CIP
Butteville Road	8-inch Gravity	2,800	45	\$126,000	SDC/Developer /CIP
I-5 Pump Station	Pump Station Upgrade	1	300,000	\$300,000	SDC/Developer /CIP
Butteville Road	8-inch gravity trunk sewer	3,000	45	\$135,000	SDC/Developer /CIP

North Area

South of Crosby	8-inch gravity trunk sewer	4,110	45	\$184,950	SDC/Developer /CIP
South of Crosby	10-inch gravity trunk sewer	4,470	55	\$245,850	SDC/Developer /CIP

South Area

West of Hwy 99E	8-inch gravity trunk sewer	1,800	45	\$81,000	SDC/Developer /CIP
West of Hwy 99E	10-inch gravity trunk sewer	1,350	65	\$87,750	SDC/Developer /CIP
TBD	Pump Station	1	300,000	\$300,000	SDC/Developer /CIP
Brown Rd to Cleveland	Force Main	3,000	60	\$180,000	SDC/Developer /CIP

Funding

To assure that the impact of providing and maintaining new sewer collection facilities is not a burden to the community, new development will be required to pay for the cost of collection facilities needed to serve such development. Extra capacity facilities required to meet the standards of the Master Sewer Plan will be paid from accumulated revenue of the System Development Charge Fund.

The City will continue paying the cost of maintaining and improving the existing collection system with funds derived from user fees. Treatment plant upgrades will be financed through a combination of system development charge funds, loans, and grants.

STORM WATER PLAN

The Woodburn Storm Drainage Master Plan was prepared by Crane and Merseth Engineering/Surveying in 1995, and was updated in 2002. The study area of the Storm Drainage Master Plan included the area within the UGB as it existed before the 2005 amendments and areas immediately surrounding the City that contribute runoff to Mill Creek and Senecal Creek upstream of the City. The study area comprised approximately 9,447 acres.

The Storm Drainage Master Plan is based on identifying the impervious area that existed in the base year, 1994. The study then calculated impervious areas for future land uses based on an assumption that every parcel within the UGB fully developed at the maximum density allowed by the 2001 Woodburn Comprehensive Plan Land Use Map.

As noted, there are two major drainage basins within Woodburn - Senecal Creek and Mill Creek. See Figure 1, Senecal & Mill Creek drainage basin boundaries. The small basin, Senecal Creek, is divided into 13 sub-basins (see Figure 4) and the larger basin, Mill Creek, is divided into 51 sub-basins (see Figure 5). These drainage basins will continue to serve planned development in 2005 UGB expansion areas.

Existing Inventory – Major Drainageways

Appendix A to the Storm Drainage Master Plan contains a June 1999 inventory of the existing public storm water system's facilities 12-inches and larger in diameter in the Mill Creek and Senecal Creek basins in the City of Woodburn.

- Table 1 contains a summary listing (by basin) of pipe sizes, materials, and conditions.
- Table 2 includes data for culverts.

**Table 1
Mill Creek Tributary and Sub-basin
Storm Drain Capacity Inventory**

Pipe/Channel Segment Description	Flow Node/subbasin	Size/Diameter (Inches)	Type	Approx Length (FT)	Adequacy Design Event Carried (YR)	
					1996 Conditions	Full Build
SUB-BASIN M-6A2						
Hardcastle Ave. 30th Outfall Line	M-6A2	30"	CSP	2800	100	25
TRIBUTARY M-7 (Includes M-11-C2 SETTLEMEIR TO FRONT ST.						
Front St. Crossing & Leaping Weir	#7	30	CMP	230	100 (Ponded)	2 (Ponded)
Open Channel, 1st to Front	#7		DITCH	250	25, Storage Area	Maintain as storage or Convey 100 cfs
1st Street Crossing	#7	30	CMP	150	2	<2
Open Channel, 2nd to 1st	#7		DITCH	200	100, out of bank	Convey 100 CFS
2nd St. Crossing	#7	36	CMP	70	5	2
36", 3rd to 2nd St. Crossing	#7	36	CMP	350	100	100
42" Lincoln to 3rd St	#7b	42	CMP	1390	100	25
25" Settlemier to Lincoln	#7b	24	RCP	280	25	<2
*HAYES ST. LINE	M-7B1.B2	18	RCP	390	10	(no add capacity)
**AUSTIN CT./HAYES ST. LINE	M-7B1	18	RCP	750	10	(No add capacity)
*	M-7B1	15	RCP	440	10	(No add capacity)
*	M-7B1	18	RCP	520	10	(no add capacity)
TRIBUTARY M-9a, MCKINLEY/99e						
HWY 99e TO OUTFALL						
48" CMP Gatch St. Crossing	#9A	48	CMP	375	100	100
Open Channel, Gatch to Bryant	#9a		DITCH	800	100, ponded	Convey 75 CFS
48" Outfall @ Bryant	#9a		CMP	150	25	25
48" CMP, Bryant to McKinley	#9a	48	CMP	550	50	50
McKinley St. 24", Conf. 48" to 99E	M-9A3	24	CMP	600	<2	<2
SUB-BASIN M-10						
12" Collector, Outfall to Jana Ave.	M-10	12	CMP	470	2 \	(No add capacity)
12" Collector, Jana Ave. to Hawley	M-10	12	CMP	650	2	(No add capacity)
TRIBUTARY M-11						
CLEVELAND ST. OUTFALL TO SETTLEMEIR						
Outfall Culvert, Brown to Cleveland	#11	(2) 42"	RCP		100	5 (Undetained)
Open Channel, Front St. to Brown St.	#11		DITCH		50	5 (Undetained)
Front St. Crossing	#11a	48"	RCP	200	50	5 (Undetained)
Park pipe, Settlemier to Front	#11b	48"	RCP	1160	50	5 (Undetained)
Settlemier Crossing	#11b	54"	CMP	50	50	5 (Undetained)
18" A Street Collector	M-11	18"	1	1300	5	<2
SPUR M-11B/PARR ST. TO CONF.						
Open Channel, Brown St. to Conf. Main Tributary	M-11B1/B2		DITCH		100, Backwater Ponding	Convey 30 CFS

* A new storm drain, in the Hayes/Hall vicinity was constructed in 2001. The line diverts flow from the indicated lines to an existing 48-inch trunk situated in Highway 214. This line ultimately discharges to

Goose Creek, east of Nuevo Amanecer apartments. Calculations show that lines downstream from the diversion are now operating without potential for backwater during design storm.

** A slip-lining or pipe-bursting project will be completed spring 2006. The project will correct problems that have contributed to diminished capacity of this line.

Crossing Description	Flow Node	1995 Survey Data Size/ Diameter	Type	Length (FT)	Top of Road Overflow Elevation	Target Flood Elevation (FT)	APPROXIMATE CAPACITY		
							Flow (CFS)	Event (YR)	Buildout
Crosby Road Arch Culvert	M-1	7'x10"	CMP Arch	69	148.4	148.0	340	5	2
Private Drive	M-2	8.3'x7.8' (96")	CMP	26	149.1	149.0	280	2	<2
Hazelnut Ave. Bridge	M-4	Natural Section	NA	80	157.1	152.0	>500	100	100
High School Entrance Drive	M-4	9.1'x14.0'	CMP Arch	66.8	158.9	153.4	490	100	100
Hwy 214 - Box Culvert	M-5/6	12'x7.7'	Con. Box	73	154.4	154.0	500	100 (Backwater Flooding)	
Front St and SPRR Culverts	M-6	96"	CMP	285	180/6(RR)	156.0	430	100	100
Hardcastle Avenue - & 2" CMP	M-8	72" (deformed outlet)	CMP	182	163.6	161.5	250	50	25
Lincoln Street Culvert	M-9	84" (deformed)	CMP	130	169.3	163.5	290	100	100
Young Street Box Culvert	M-10/11	8'x6'	Con. Box	100	174.0	164.3	290	100	100
Cleveland Street Arch Culvert	M-10	9.3x16.4'	CMP Arch	150	168 (street)	164.4	210	100	100
Marshall Street Culvert	M-10	48"	RCP	57	165.5	165.5	82	10	5
Stark Street Culverts	M-10	(2) 48"	RCP	62	167.9	167.0	200	100	100
Wilson Street Culverts	M-12	(2) 52"	RCP	74	169.0	169.0	200	100	100

Indicates approximate length only, no field survey data.

Needed Drainage Improvements to Support Growth

Recommendations for needed storm drainage projects are found in Chapter 9 of the Storm Drainage Master Plan. The CIP shows projects that will be needed through the Year 2006 within the City Limits. (See Appendix A.)

Detention Policy Implementation

The Storm Drainage Master Plan includes a Stormwater Flow Management Program, including policies regarding detention. This policy requires on-site detention for new developments and identifies several locations in the City where a public detention facility may be sited.

Portions of the existing drainageways function as detention sites where East Lincoln Street and Hardcastle Street (and others) are crossed. These sites, four located in the Mill Creek drainage and one located in the Senecal Creek drainage basin will continue to function as detention areas. Programs directed at improving public safeguards during periods of high flow and incorporation of storm water treatment will be continued whenever possible.

Detention facilities are sized based on the Council adopted guide presented in Table 3, "Volumes for Different Intensity storms for 10-Acre Site."

**Table 3
Volumes For Different Intensity Storms
For 10 Acre Site**

Storms	Results	I (Intensities)	A = 435,600 or 10 acres	Developed C=0.71 (Un)developed C+0.25	ft ³ Sec (cfs)	Volumes ft ³ 3600sec	
						hrs storm	sec hrs storm
100 yr.	<u>1.26"</u> 1.7 hrs	0.467 <u>in</u> <u>hr</u>	435,600 ft ² or 10 acres	0.1 0.25	3.313 1.167	32,205 ft ³ 11,240 ft ³	32,205 ft ³ <u>--11,340 ft³</u> 20,865 ft ³ storage volume
50 yr.	<u>1.20"</u> 1.76 hrs	0.435 <u>in</u> <u>hr</u>	435,600 ft ² or 10 acres	0.1 0.25	3.087 1.087	32,672 ft ³ 10,800 ft ³	32,672 ft ³ <u>--10,800 ft³</u> 19,872 ft ³ storage volume
25 yr.	<u>1.14"</u> 2.86 hrs	0.399 <u>in</u> <u>hr</u>	435,600 ft ² or 10 acres	0.1 0.25	2.830 0.996	29,138 ft ³ 10,255 ft ³	29,138 ft ³ <u>--10,255 ft³</u> 18,883 ft ³ storage volume
10 yr.	<u>1.08"</u> 2.97 hrs	0.364 <u>in</u> <u>hr</u>	435,600 ft ² or 10 acres	0.1 0.25	2.582 0.909	27,605 ft ³ 9,720 ft ³	27,605 ft ³ <u>-- 9,720 ft³</u> 17,885 ft ³ storage volume
5 yr.	<u>0.935"</u> 3.28 hrs	0.285 <u>in</u> <u>hr</u>	435,600 ft ² or 10 acres	0.1 0.25	2.024 0.713	23,899 ft ³ 8,415 ft ³	23,899 ft ³ <u>-- 8,415 ft³</u> 15,484 ft ³ storage volume
2 yr.	<u>0.800"</u> 3.64 hrs	0.220 <u>in</u> <u>hr</u>	435,600 ft ² or 10 acres	0.1 0.25	1.560 0.549	20,448 ft ³ 7,200 ft ³	20,448 ft ³ <u>-- 7,200 ft³</u> 13,248 ft ³ storage volume

Short and Long-Term Capital Improvements Projects

Table 4 summarizes needed drainage improvements projects and is derived from the Woodburn Storm Drainage Master Plan. Table 4 is based on the following assumptions and methods:

CITY OF WOODBURN RUN OFF DETENTION REQUIREMENT

- 1) Construct a device that has capacity for detaining difference in run off volume received by undeveloped and developed land for a 25-year storm.
- 2) Construct a discharge orifice of a size that the quantity of run off through the orifice is equal to run off flow from a storm of 5-year or less, undeveloped land.
- 3) Construct a detention facility to have a post-development 25-year capacity with a discharge orifice (or structure) sized to limit outflow to no more than the undeveloped site peak run off for the existing (undeveloped) 5 year frequency storm. Detention volumes calculated by the following methods are acceptable:
 - A. Santa Barbara Urban Hydrograph routing model (as prescribed by the King County Surface Water Design Manual) for the post development 25-year runoff hydrograph detained back to the existing 5-year peak site discharge.
 - B. 18,883 CF/ 10 Acre drainage area as per City of Woodburn standard table, above, based on the rational method

SAFETY REQUIREMENTS

- 1) Depth of storm water within 30 feet from the edge of detention ponds, if open to public, shall be limited to 3 feet, then gradual slope (3%) to higher depth shall be allowed. Maximum pond side slopes shall be 3' horizontal to 1' vertical, however, gentler slope is desirable.

TABLE 4 Needed Storm Improvement Project Summary Woodburn Drainage Master Plan					
Project ID	Project Name	Drainage Basin	Subbasin ID	Priority	Estimated Cost (\$)
P1	Hardcastle Crossing	Mill Ck	M-8	High	\$ 191,729
P2	Front Street Detention & Crossing	Mill Ck	M-7	High	\$ 151,436
P3	Marshall Street	Mill Ck	M-10	High	\$ 78,560
P4	Crosby Road Crossing	Mill Ck	M-1	N/A (county)	\$ 587,159
P5	Boones Ferry Crossing	Mill Ck	M-1a	High	\$ 53,157
P6	Old town - 2nd street	Mill Ck	M-7	Medium	\$ 188,965
*P7	East McKinley	Mill Ck	M-9a	High	\$ \$953,101
P8	Stubb Rd Detention	Mill Ck	M-11a	Medium	\$ 359,571
P9	Connect 48" at I-5 & Hwy 214	Senecal Ck	ES-2	High	N/A
P10	Goose Creek Re-alignment	Mill Ck	M-5	High	\$ 224,577
					\$2,788,255

* This project was completed in 2004.

The Storm Drainage Master Plan recommended that the City implement several storm drainage improvement projects. Five proposed projects within the Study area were given high priority for improvement. These are the Mill Creek/Hardcastle Road crossing; development of a detention facility at the Front Street park, addition of a 42-inch line across Front street and the railroad; adding capacity at Marshall street; increasing capacity at East McKinley near Bryan Street; and consolidation of storm flows into the existing 48-inch line crossing I-5 immediately north of Hwy 214.

- On Hardcastle Road, addition of a box culvert auxiliary (overflow) line in the embankment of the fill crossing Mill Creek is recommended.
- On Front Street, flow from an open ditch in the park enters an 18" diameter pipe before it goes under Front Street. Flows beyond the capacity of the 18" pipe are diverted to an open ditch and routed northerly to an existing 30" diameter pipe, which crosses under Front Street and the Railroad. The new system would create a detention facility at the park and increase capacity of the line under Front Street and the railroad by constructing a 42-inch line in place of the existing 30" pipe.
- At the Marshall Street crossing of Mill Creek, addition of a second conduit (tentatively 54-inch diameter) to increase capacity of the crossing and reduce flows that overtop the street is recommended for immediate development.
- In the area of Blaine and East McKinley Streets, the existing storm system has inadequate capacity the Storm Drainage Master Plan recommends that the City abandon the sub-standard pipes and construct new larger diameter pipes within the public right-of-way. (This project was completed in 2004.)
- The study identified problems at the Crosby Road Crossing, owned by Marion County, and recommended that the City work with the County to improve this facility.
- A dry-line 48-inch storm sewer was constructed as part of the ODOT I-5 construction. This system can be utilized to relieve hydraulic loading to the storm system crossing under I-5 to the south of Hwy 214, when placed in service.
- The study identified two locations along the main stem of Mill Creek that appear to be overtopped during very high flow periods. These are the Goose Creek confluence at Highway 214 near the Mill Creek Pump Station and the private road crossing just south of Crosby Road.
- At Mill Creek at the confluence of Goose Creek just south of Highway 214 at the Mill Creek Pump Station, there is significant probability of backwater build up during the 25-year event and overtopping at the highway embankment appears to be possible during the 100-year storm event. To alleviate this potential problem, the Storm Drainage Master Plan recommends that the City realign the Goose Creek Tributary to cross Hwy 214 and intersect Mill Creek to the north of Hwy 214. This would include the installation of a 60" diameter culvert.

- The private drive south of Crosby Road is within the City limits, but it is not a publicly-owned facility nor located within a public right-of-way. Therefore, the City does not have authority or responsibility for it. The capacity of the existing culver is inadequate to pass a 25-year event. The type, configuration and slope of the culvert, limits the capacity to less than 250 cfs. The full build-out, 100-year event flow at this location is estimated at 500 cfs. The Storm Drainage Master Plan recommends that it should be replaced with a 90" or 96" pipe.

Table 5 describes storm drainage projects that appear on the 6-year capital improvements program. As with the Water CIP, please note that projects change as annexation occurs, and that projects that do not appear on the CIP may be funded and constructed in the short-term. This is especially true of projects needed to support industrial development within the SWIR.

Table 5 summarizes storm drainage projects identified in the 6-year Capital Improvements Program. Note that projects may be added to this list based on Council priorities as land is annexed to the City.

Project #	Project	2004-05	2005-06	2006-07	2007-08	2008-09
1	Bryan Street Outfall	\$39,000	\$48,000			
2	Brown/Wilson Storm		\$130,000			
3	W. Lincoln: Leasure to Cascade		\$45,000			
4	Landau/Laurel Storm (to Pudding)		\$50,000	\$500,000	\$200,000	
5	Marshal Street Culvert		\$80,000			
6	North 1st & 2nd (north of Church St.)	\$62,000				
7	N Front Det. -culvert to Commerce		\$151,000			
8	Hardcastle Culvert Replacement		\$192,000			
9	Settlemier Regional Detention	\$194,000	\$295,000			
10	Misc. Wetland Mitigation	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
11	Reline Settlemier Crossing N. of Hayes		\$20,000			
12	Reclaim Channel N. of Progress Way	\$7,000	\$25,000			
13	Garfield-Workman-Hayes SD	\$59,200				
14	3 rd St. @ Nuevo Amanecer to Hwy 214	\$26,000	\$70,000			
15	Oak Street - 1 st to 2 nd	\$25,000				

UGB Expansion Area Projects

Table 6 identifies stormwater projects that will be needed to support planned development in UGB expansion areas. Note that minor collection lines within expansion areas are not including and that storm water detention facility area requirements are calculated without identifying specific locations. Please refer to Appendix B maps for generalized locations of storm water trunk lines.

**Table 6
Project List - Storm Drainage Plan**

Expansion Area	Location	Description	Quantity	Unit \$	Estimated Cost	Funding
Southwest Industrial						
	<u>NW of I-5</u>					
	North end	42-inch Storm Drain	2,200	200	\$440,000	SDC/Developer /CIP
	South end	36-inch Storm Drain	2,100	175	\$367,500	SDC/Developer /CIP
	TDB	Detention Area	1.9	375,000	\$712,500	SDC/Developer /CIP
	<u>SE of I-5</u>					
	Evergreen Extn to Settlemier Park	42-inch Storm Drain	6500	200	\$1,300,000	SDC/Developer /CIP
	Parr Road	36-inch Storm Drain	3,800	175	\$665,000	SDC/Developer /CIP
	Near Stacey Allison	30-inch Storm Drain	2,200	155	\$341,000	SDC/Developer /CIP
	Near Stacey Allison	24-inch Storm Drain	2,700	120	\$324,000	SDC/Developer /CIP
	TBD	Detention Area*	2.2	375,000	\$825,000	SDC/Developer /CIP
		* If detention is used, final design may indicate a smaller size for 42-inch Storm Drain shown above.				
North Area						
	East of Boones Ferry	18-inch Storm Drain	900	85	\$76,500	SDC/Developer /CIP
	East of Boones Ferry	24-inch Storm Drain	930	120	\$111,600	SDC/Developer /CIP
	To Mill Creek	48-inch Storm Drain	3,040	220	\$668,800	SDC/Developer /CIP
	TBD	3.1 Acre Detention Area	3.1	80,000	\$248,000	SDC/Developer /CIP

6-15 Year Projects

Southwest Industrial

Near South Arterial	24-inch Storm Drain	2,600	120	\$312,000	SDC/Developer /CIP
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Western Exception Area

South Collection Lines

Butteville Road / RR	30-inch Storm Lines	3,000	145	\$435,000	SDC/Developer /CIP
TBD	1.5 Acre Detention Area	1.5	80,000	\$120,000	SDC/Developer /CIP

North Collection Lines

Butteville / Senecal Cr	24-inch Storm Lines	3,400	120	\$408,000	SDC/Developer /CIP
TBD	3/4 Acre Detention Area	0.8	80,000	\$60,000	SDC/Developer /CIP

North Area

South of Crosby Rd.	18-inch Storm Drain (western area near I-5)	3,500	85	\$297,500	SDC/Developer /CIP
South of Crosby Rd.	24-inch Storm Drain (central area)	850	120	\$102,000	SDC/Developer /CIP
South of Crosby Rd.	36-inch Storm Drain (west of Boones Ferry)	2,025	175	\$354,375	SDC/Developer /CIP

South Area

East of Hwy 99E	18-inch Storm Drain	900	85	\$76,500	SDC/Developer /CIP
East of Hwy 99E	21-inch Storm Drain	800	100	\$80,000	SDC/Developer /CIP
TBD	Detention Area	1	80,000	\$80,000	SDC/Developer /CIP

Funding

To assure that the impact of providing and maintaining new storm drainage facilities is not a burden to the community, new development will be required to pay for the cost of storm drainage facilities needed to serve such development. Extra capacity facilities

required to meet the standards of the Master Storm Drainage Plan may be paid from accumulated revenue of the System Development Charge Fund.

The City will continue paying the cost of maintaining and improving the existing storm drainage system with funds derived from a combination of system development charges, Local Improvement Districts, and street maintenance and construction funds.

TRANSPORTATION PLAN

The Transportation System Plan contains information related to transportation project descriptions, location, timing and costs necessary to serve land within the 2005 Woodburn Urban Growth Boundary. The TSP is incorporated into this PFP by this reference.

APPENDIX A

CITY OF WOODBURN

**2005-2006 CAPITAL IMPROVEMENT
PROGRAM**

6

6

6

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No	Project	Revenue Source	2005	2006	2007	2008	2009	2010	Total
Public Works Capital Improvement Program									
Street Resurfacing: State Roadway Systems			(Total Project Cost Shown)						
1	Boones Ferry/Settlemer/Hwy 214 Intersection*	TIF/ODOT/SpAsmt	612,000						612,000
2	Highway 214 Sidewalk - Phase 2 (Local Share \$25,000)	ODOT Grant/SRS	107,000	200,000	198,550				505,550
	Total State Roadway System		612,000	200,000	198,550	0	0	0	1,117,550
<i>* Project bid to be let by ODOT.</i>									
Street Improvements: Major Upgrades									
1	Country Club Rd	TIF/SpAsmt/CIP	326,700						326,700
2	Hwy 214 to Front St. Conn. (study)	St. Storm CIP	75,000						75,000
3	<u>Front St Undergrounding/Streetscape</u>								
	A. Front St.: Cleveland to Hardcastle	UrbRen	640,000						640,000
	B. N. Front: Hardcastle-N UR bound.	UrbRen		442,606					442,606
4	<u>Front Street Improvements</u>								
	A. S. Front St: Settlemer- Cleveland	UrbRen/TIF/CIP/EcDev	611,000						611,000
	B. N. Front St.: Hardcastle - WHS	UrbRen/ODOT/CIP			585,000				585,000
	C. N. Front St: WHS to UGB	St. CIP/TIF/Sp Asmt				200,000	500,000		700,000
5	Hardcastle/Railroad Realignment	St. CIP/TIF/Other		200,000					200,000
6	Parr Rd.: School to Centennial Park	WaterConst/ParksSDC	297,600						297,600
7	W. Hayes: Settlemer to Cascade	St. CIP/TIF				100,000	364,000		464,000
8	Evergreen Rd: connect to Parr Rd	Developer/TIF			475,000	475,000			950,000
9	Alley: Garfield - Cleveland	Street CIP/SpAsmt	169,900						169,900
10	Cleveland: Front to First	St. Storm CIP	117,800						117,800
11	Cleveland -- widen First to Second	State Rev. Sharing		25,000	150,000				175,000
12	N. Woodland: Camas - Stevens	St. CIP/Sp Asmt		50,000					50,000

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2005-2006 Capital Improvement Program

No	Project	Revenue Source	2005	2006	2007	2008	2009	2010	Total
			-6	-7	-8	-9	10	-11	

Public Works Capital Improvement Program

Street Improvements: Major Upgrades

13	Fifth St: north of Harrison	St. CIP/Sp Asmt				300,000			300,000
14	Harrison; Front to Settlemier	St. CIP/TIF/Sp Asmt		120,000					120,000
15	Hayes: Front to 2nd	SRS/Other		80,000					80,000
16	Ogle Street/Settlemier Intersection	St. Storm CIP	35,000	20,000					55,000
17	<u>Miscellaneous Modifications</u>								
	A. Pedestrian Movements								
	1. Brown St Walkway 0.5 City/0.5 Developer	Str CIP	20,000						20,000
	2. Safety Sidewalk Construction	St. CIP	15,000						15,000
	3. Safety signal	St. CIP							
	N. Boones Ferry @ Henrys Farm	SRS	26,400						26,400
	Hayes @ Cozy Lane	SRS	26,400						26,400
	Hardcastle @ Park Ave.	SRS		27,700					27,700
	B. Intersections								
	1. Hayes/Bottle/Settlemier	St.CIP/Water Const.	150,000	30,000					180,000
	2. Settlemier/W. Lincoln	St. CIP	25,000						25,000
	3. Lawson/Highway 214	SRS			50,000				50,000
	C. Misc. Capacity Improvements	TIF/CIP	35,000	35,000					70,000
	Major Upgrades Total		2,570,800	1,030,306	1,260,000	1,075,000	864,000		6,800,106

* Project Bid to be let by ODOT

Street Repaving: Gravel Streets

1	No Name Street	SRS, GF, SpAsmt	60,000						60,000
2	Tout Street	SRS,CIP, GF, SpAsmt		106,000					106,000
3	Carol Street	SRS,CIP, GF, SpAsmt			117,046				117,046
4	Wilson Street	SRS,CIP, GF, SpAsmt				82,277			82,277

2005-2006 Capital Improvement Program

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No	Project	Revenue Source	2005	2006	2007	2008	2009	2010
			-6	-7	-8	-9	10	-11
Public Works Capital Improvement Program								
5	Alexandra Street	SRS,CIP, GF, SpAsmt				78,000		78,000
6	Elm Street	SRS,CIP, GF, SpAsmt					50,000	50,000
7	Church Street, 1st to 2nd	SRS,CIP, GF, SpAsmt					TBD	
8	Yew Street, 2nd to 3rd	SRS,CIP, GF, SpAsmt					TBD	
	Total Gravel Streets		60,000	106,000	117,046	82,277	78,000	443,323

*List is not complete. Paving of all gravel streets will require expenditure of about \$2.0 Million more than "total" indicated at right.

Street Maintenance & Restoration: Poor Streets - 1-1/2" Lift "C" Mix*

1	Bryan St:McKinley to Lincoln, 650'	Gas Tax/SRS/St Fund	34,000					34,000
2	McKinley St: Bryan to Hwy. 99E	Gas Tax/SRS/St Fund	55,000					
3	Rainier Rd: Astor to Delmoor, 1275'	Gas Tax/SRS/St Fund	70,000					70,000
4	Broughton Way, All	Gas Tax/SRS/St Fund	25,000					25,000
5	Vanderbeck:Princeton to Upmqua	Gas Tax/SRS/St Fund	39,115					39,115
6	Cahill, All, 440 ft.	Gas Tax/SRS/St Fund	25,880					25,880
7	Hampton Way	Gas Tax/SRS/St Fund	45,000					45,000
8	Garfield St: Alley to 2nd, 500 ft.	Gas Tax/SRS/St Fund	15,000					
9	Arthur St: Front to First	Gas Tax/SRS/St Fund	20,000					
10	Arthur St: Third to Settlemier	Gas Tax/SRS/St Fund	15,000					
11	Grant, Front to First	Gas Tax/SRS/St Fund	30,000					
11	Oak St: Front to Settlemier	Gas Tax/SRS/St Fund	48,000					48,000
12	Micellaneous Repair	Gas Tax/SRS/St Fund	50,000					50,000
13	Thompson, All	Gas Tax/SRS/St Fund	160,000					160,000
14	Ecola Way	Gas Tax/SRS/St Fund	23,422					23,422
15	Elana Dr. (North)	Gas Tax/SRS/St Fund	46,884					46,884
16	Quinn Road	Gas Tax/SRS/St Fund		112,000				112,000
17	Walton Way	Gas Tax/SRS/St Fund		65,000				65,000

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2005-2006 Capital Improvement Program

No	Project	Revenue Source	2005	2006	2007	2008	2009	2010	2011	Total
Public Works Capital Improvement Program										
Street Maintenance & Restoration: Poor Streets - 1/2" Lift "C" Mix*										
18	Dellmoor Way	Gas Tax/SRS/St Fund			71,000					71,000
19	Brown Street, Pvmnt Rest (1/2 cost)	Gas Tax/SRS/St Fund				50,000				50,000
20	Miscellaneous Street Resurfacing	Gas Tax/SRS/St Fund				150,000	150,000			300,000
	Street Maintenance & Restoration Total		471,995	230,306	248,000	200,000	150,000			1,300,301
<i>* Listed Projects may move to Major Upgrade category at time of construction.</i>										
Street Preventative Maintenance: Fair Streets - 3/4" to 1" Lift "D" Mix*										
1	Blaine St: Gatch to Hwy. 99E	Gas Tax/SRS/St Fund	44,000							44,000
2	Rainier/Delmoor/Country Club	Gas Tax/SRS/St Fund	40,000							40,000
3	Tomlin Avenue	Gas Tax/SRS/St Fund	40,300							40,300
4	George St./Landau	Gas Tax/SRS/St Fund	30,000							30,000
5	First St. - Cleveland to Harrison	Gas Tax/SRS/St Fund		50,000						50,000
6	Second Street - Oak to Harrison	Gas Tax/SRS/St Fund		45,000						45,000
7	Elana Dr. (South)	Gas Tax/SRS/St Fund		13,175						13,175
8	Brandywine Ct.	Gas Tax/SRS/St Fund		14,639						14,639
7	Kelwona Ct.	Gas Tax/SRS/St Fund		16,103						16,103
8	Kelwona St.	Gas Tax/SRS/St Fund		21,958						21,958
9	Miscellaneous Street Resurfacing	Gas Tax/SRS/St Fund		21,958	100,000	100,000	100,000			321,958
	Street Preventative Maintenance Total		154,300	160,875	100,000	100,000	100,000			615,175
<i>*Listed Projects may move to Poor Streets category at time of construction.</i>										
Water/Water Systems Renovation										
1	Hwy. 214 widening	Water Fund		44,000						44,000
2	Laurel Avenue (replace line)	Water Fund/SDC 474	35,000							35,000
3	Hwy. 99E: Tomlin to Laurel	Water Fund/SDC 474	52,000							52,000

2005-2006 Capital Improvement Program

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No	Project	Revenue Source	2005	2006	2007	2008	2009	2010	Total
			6	7	8	9	10	11	
Public Works Capital Improvement Program									
Water: Water System Reconstruction									
4	Hwy. 99E: Laurel to Aztec	Water Fund/SDC 474	16,500						16,500
5	99E at Silverton Road (bore)	Water Fund/SDC 474			110,000				110,000
6	N. First Street/N. Second (loop)	Water Fund/SDC 474		18,700					18,700
7	N. Fifth Street (replace line)	Water Fund		44,000					44,000
8	<u>Hwy. 214 @ Mill Creek</u>								
	A. Bore	Water SDC 474	68,200						68,200
	B. Loop Line installation	Water SDC 474		132,000					132,000
9	Hwy. 99E: Blaine to Aztec	Water Fund/SDC 474			44,000				44,000
10	Hwy. 99E: Blaine to Lincoln	Water Fund/SDC 474			66,000				66,000
11	99E South (New Line)	Water Fund/SDC 474			132,000				132,000
12	Water Treatment	Wtr Const/SDC	500,000						500,000
13	Hazelnut Dr. - Replace Bridge Line	Water Fund			55,000				55,000
14	Parr Road to Evergreen Loop	Developer/Wtr/Wtr Const						TBD	0
15	Hawthorne Circle Line Extension	Water Fund/SDC 474	35,000						35,000
16	Remove Small Water Tank	Water Const		75,000					75,000
17	Misc. Capacity Improvements	Water SDC 474	40,000						40,000
18	Water System Reconstruction Total		746,700	313,700	407,000	0	0		1,467,400
Wastewater Treatment Plant									
1	Storm Water Treatment Impvts	Sewer Const 465			120,000				120,000
2	Effluent Storage Pond	Sewer Fund/SDC			80,000				80,000
3	Pilot Poplar Harvest & Replant	Sewer Fund/SDC			5,000	25,000			30,000
4	UV System Expansion	Sewer Fund/SDC		75,000	75,000				150,000
5	Chemical & Generator Roof Replacement	Sewer Fund/SDC			12,000				12,000
6	FSL Dredge Installation	Sewer Fund			160,000				160,000

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2005-2006 Capital Improvement Program

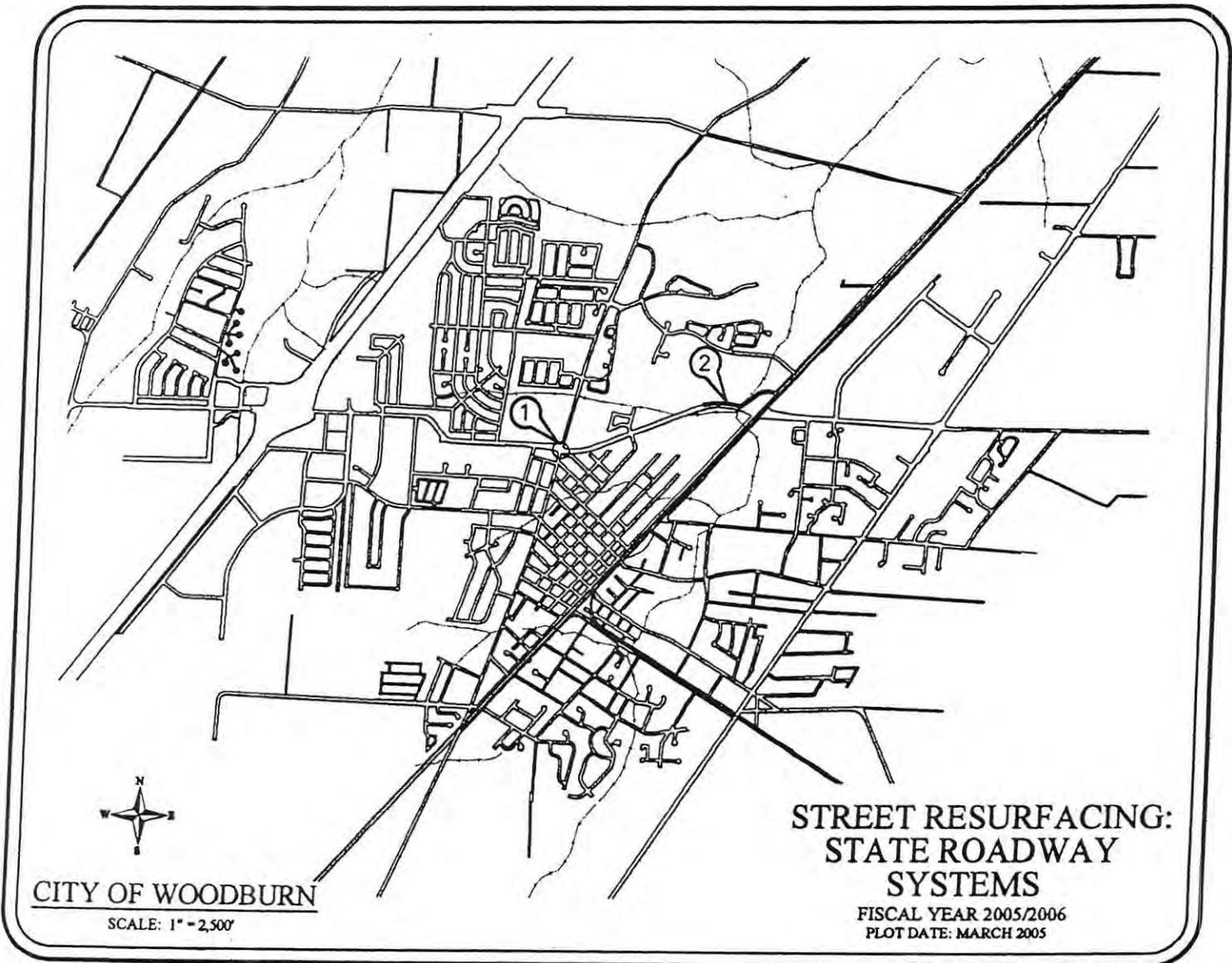
No	Project	Revenue Source	2005	2006	2007	2008	2009	2010	Total
Public Works Capital Improvement Program									
7	Bypass Aeration @ Outfall	Sewer Const 465		15,000	20,000				35,000
8	Reuse System Phase 1.5	Sewer Fund		25,000	450,000	2,500,000			2,975,000
9	Excess Thermal Load-Compliance	Sewer Fund		25,000	500,000	175,000	30,000		730,000
10	Winter Ammonia-Compliance	Sewer Fund		10,000	100,000				110,000
11	Facility Plan Update -- Phase II	Sewer Const			25,000	100,000			125,000
12	Second MCPS Design & Construction	Sewer Const			25,000	200,000	1,500,000	1,500,000	3,225,000
13	MCPS Pump Replacement & Monorail Const	Sewer Const 465			62,000	75,000			137,000
14	Rainier LS Base Repair	Sewer Fund 472			35,000				35,000
15	LS Electrical Upgrade Compliance & Monitoring	Sewer Fund 472			45,000				45,000
16	Industrial Ave Pump Station Rehab	Sewer Const/Eq Repl	310,900						310,900
17	Greenview Pump Station Upgrade	Sewer Const/Eq Repl	334,000						334,000
18	Rainier, Force main Extension	Sewer Fd/SwrConst		125,000	125,000				250,000
19	SW Pump Station (City Share)	Sewer Fund					100,000		100,000
20	Treatment Plant Construction Total		644,900	275,000	1,839,000	3,175,000	1,530,000		7,463,900
Wastewater Collections System Construction									
1	Santiam Lift Sta/Line Installation	Sewer Const 465		210,000					210,000
2	N. Trunk Rehab/Hazelnut Br Xing	Sewer Const 465				25,000	75,000	350,000	450,000
3	<u>Mill Creek Trunk</u>								
	A. Extension to Shalimar	Sewer Const 465					125,000	150,000	275,000
	B. Rehab Cleveland-Wilson	Sewer Const 465				325,000			325,000
4	N. 1st Harrison to Noname	Sewer Const 465			30,000	30,000			60,000
5	Smith Addn to New Well at Settlemier	Sewer CIP 461		16,000					16,000
6	Arthur - Third to Settlemier	Sewer Const 465		52,700					52,700
7	Alley - Hayes to Garfield (East of Plaza)	Sewer Const 465/l&l	40,000						40,000

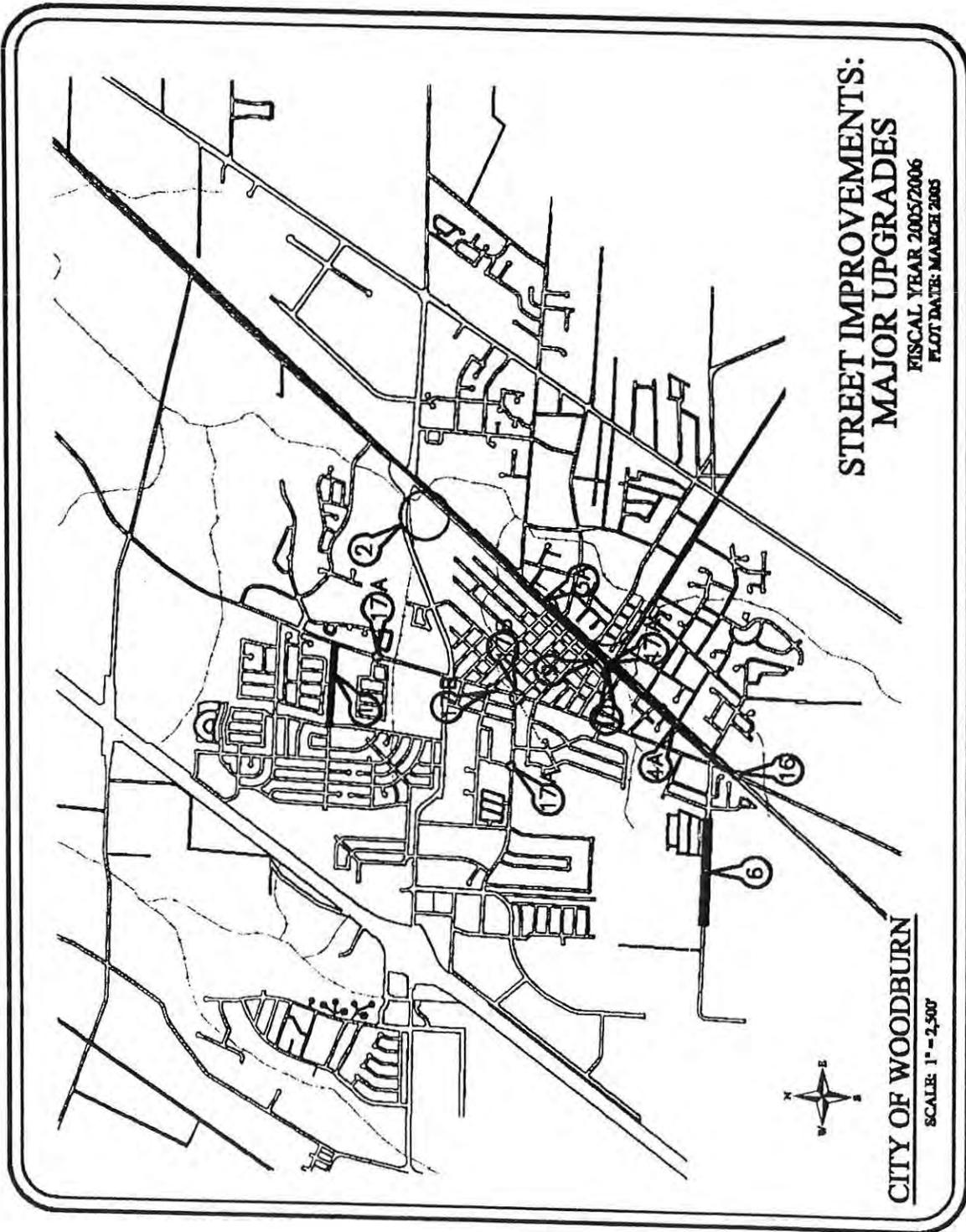
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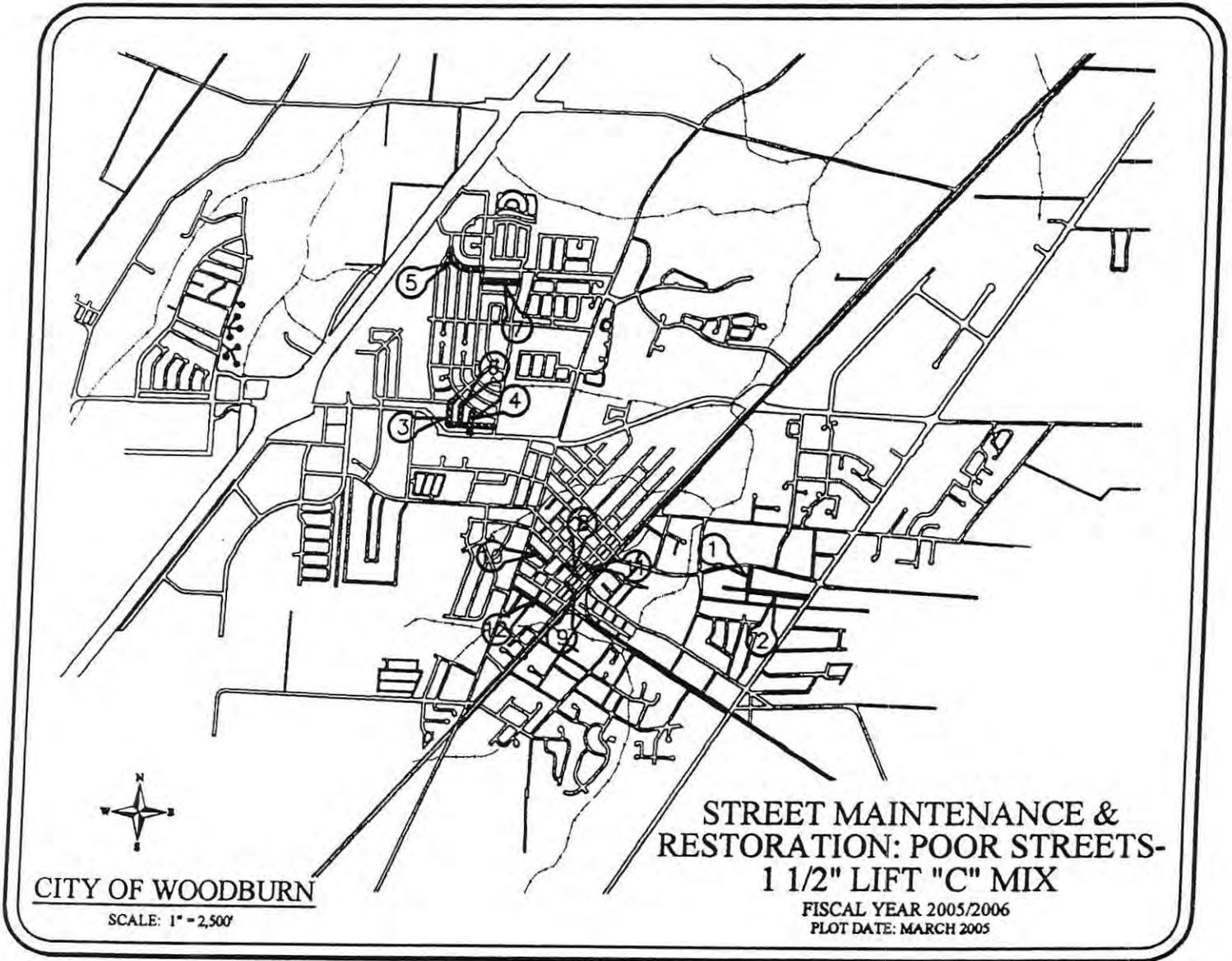
No.	Project	Revenue Source	2005	2006	2007	2008	2009	2010	Total
			6	7	8	9	10	11	
Public Works Capital Improvement Program									
Wastewater: Collections System Construction									
9	Rehab/I & I Removal	Sewer Fund 472	10,000	20,000	20,000	20,000	20,000	20,000	
	Collections System Construction Total		50,000	298,700	50,000	400,000	220,000	520,000	1,428,700
Wastewater: Storm Drain Construction									
1	Bryan St Outfall Upgrade	Storm SDC/CIP	48,000						48,000
2	Brown Storm: Wilson - Cleveland	Storm SDC/CIP	150,000						150,000
3	Garfield-Workman-Hayes SD	Storm CIP	59,200						
4	W. Lincoln: East of Cascade (500')	Storm SDC/CIP		45,000					45,000
5	Landau/Laurel Storm (to Pudding)	Storm SDC/CIP	50,000	500,000	200,000				750,000
6	Marshall Street Culvert (P3)	Storm SDC/CIP			80,000				80,000
7	North 1st & 2nd - North of Church St. (P6)	Storm SDC/CIP				95,000	95,000		190,000
8	N. Front Det. -culvert to Commerce (P2)	Storm SDC/CIP	51,000	100,000					151,000
9	Hardcastle Culvert Replacement (P1)	Storm SDC/CIP		192,000					192,000
10	Settlemier Detention & Outlet Works (P8) Ph. 1	Storm SDC	194,400						194,400
11	Settlemier Detention & Outlet Works (P8) Ph. 2	Storm SDC	200,000	200,000					400,000
12	Misc. Wetland Mitigation	Storm SDC/CIP	25,000	25,000	25,000	25,000			100,000
13	Reline Settlemier Crossing N. of Hayes	Storm SDC/CIP	20,000						20,000
14	Reclaim Channel N. of Progress Way	Storm SDC/CIP	7,000						7,000
15	3rd St @ Nuevo Amanecer - to Hwy 214	Storm SDC/CIP		26,000					26,000
16	Senecal Creek 48" Connection (P9)	Storm SDC/CIP							
	Storm Drain Construction Total		804,600	1,088,000	305,000	120,000	95,000	0	2,353,400
Public Works Facilities Expansion									
Total Public Works CIP			6,115,295	3,702,887	4,524,596	5,152,277	3,037,000	520,000	22,989,855

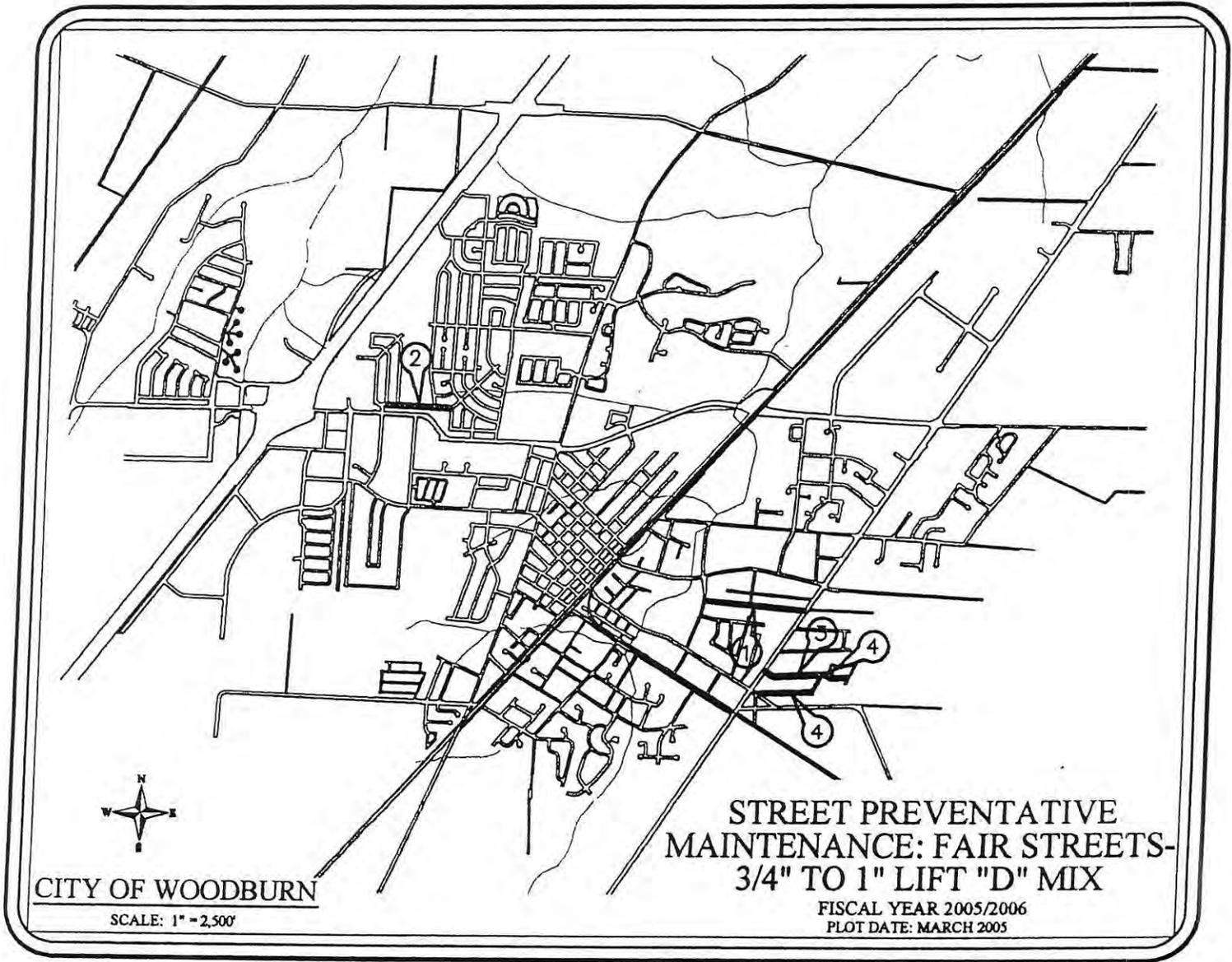
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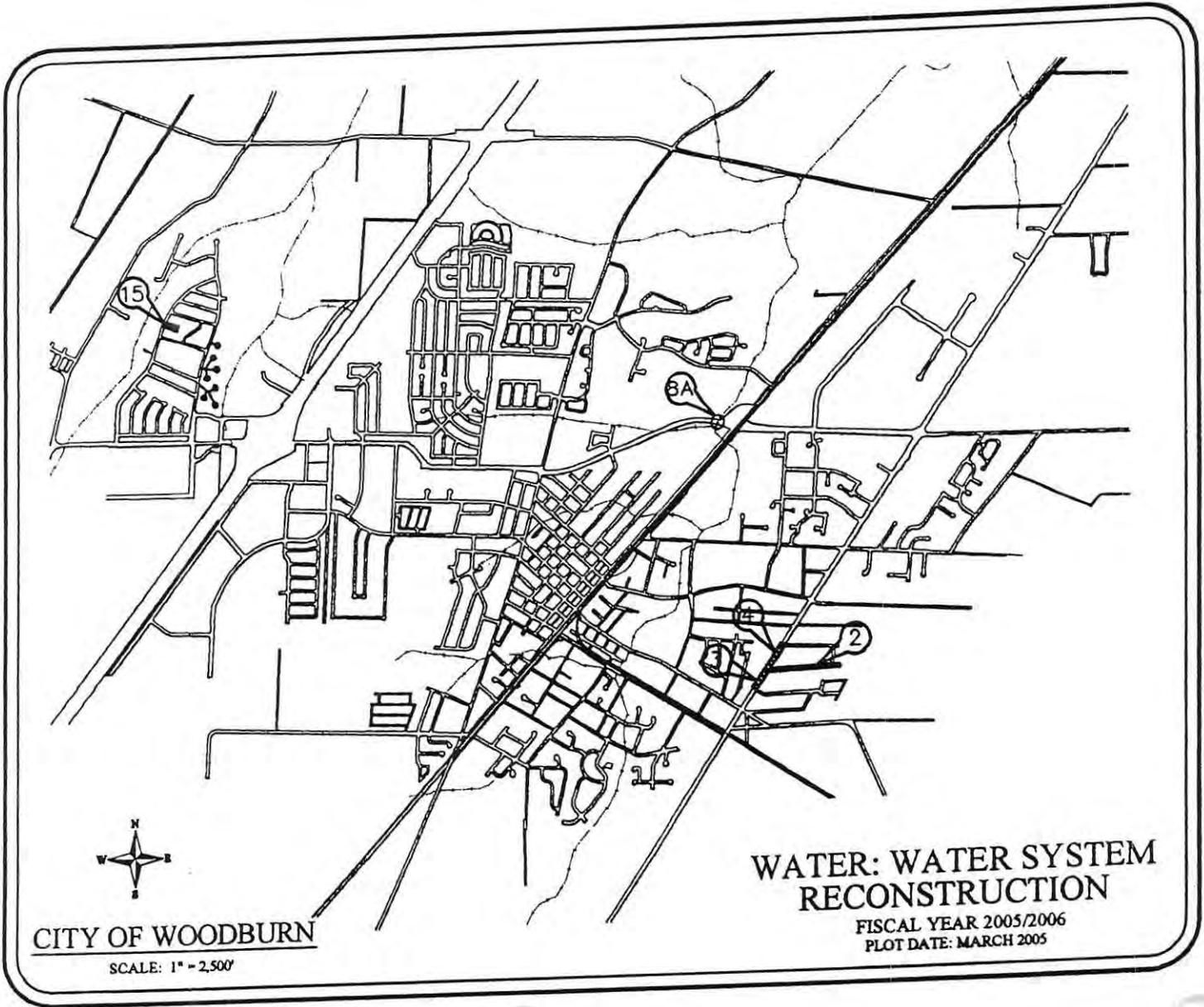


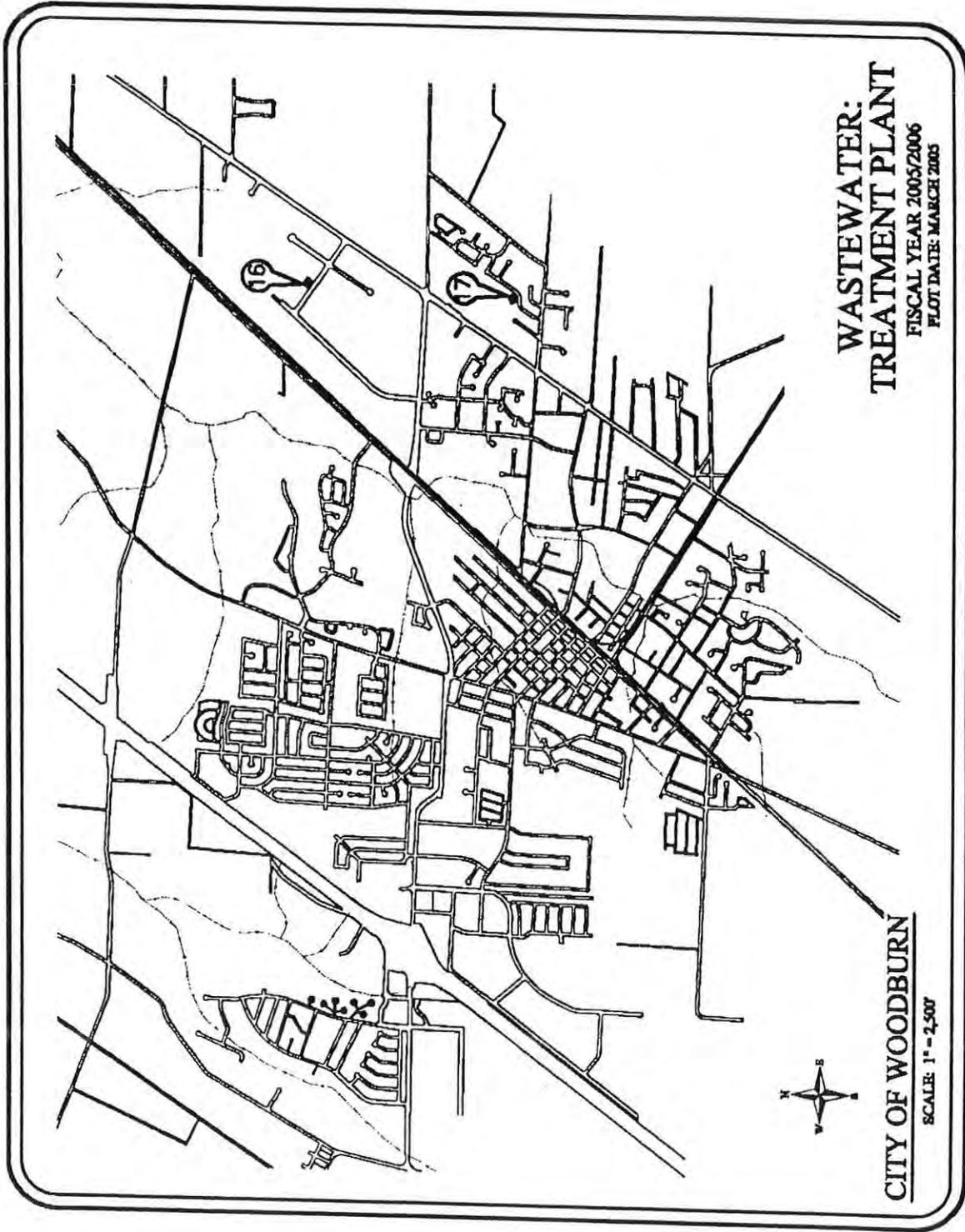
CITY OF WOODBURN

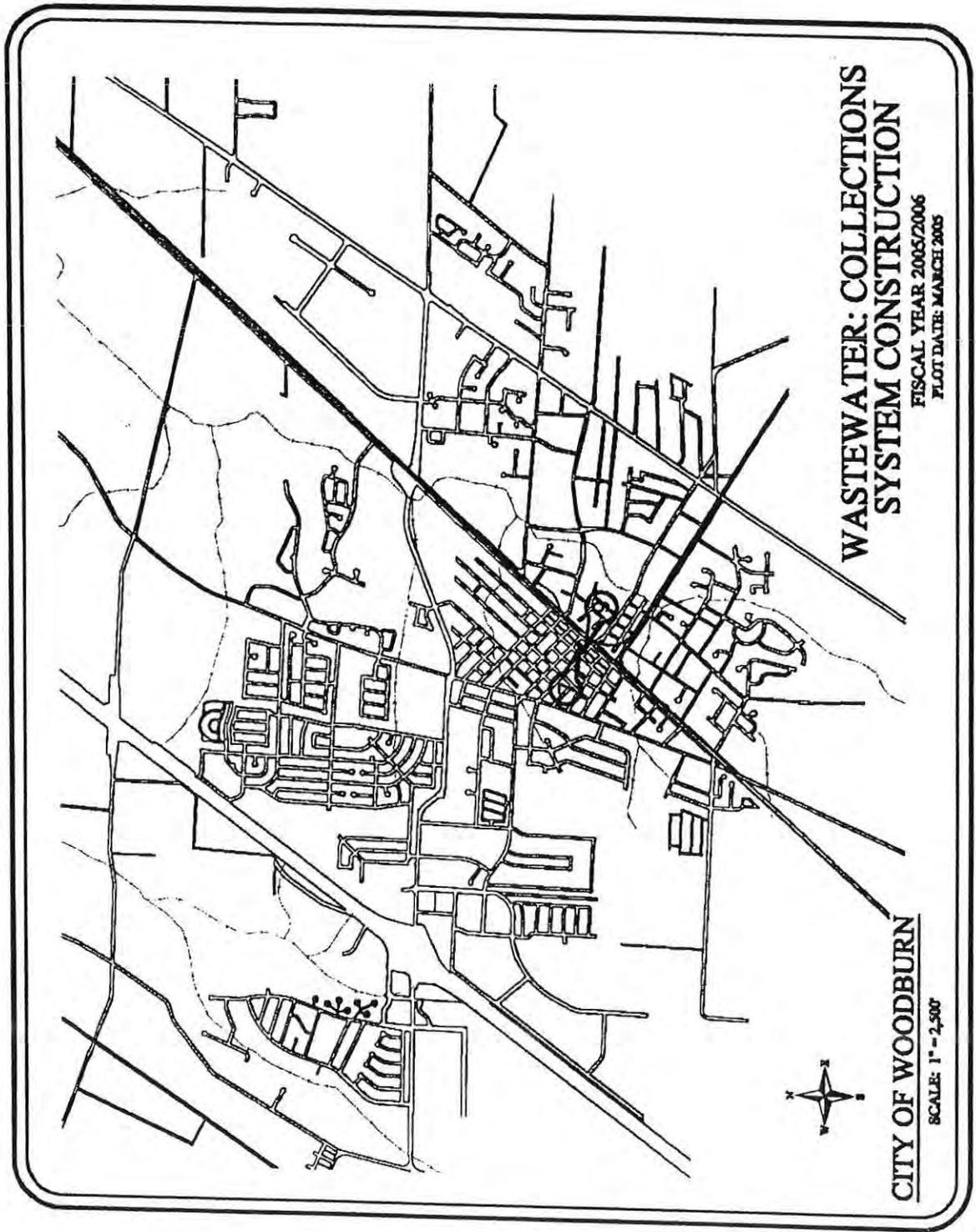
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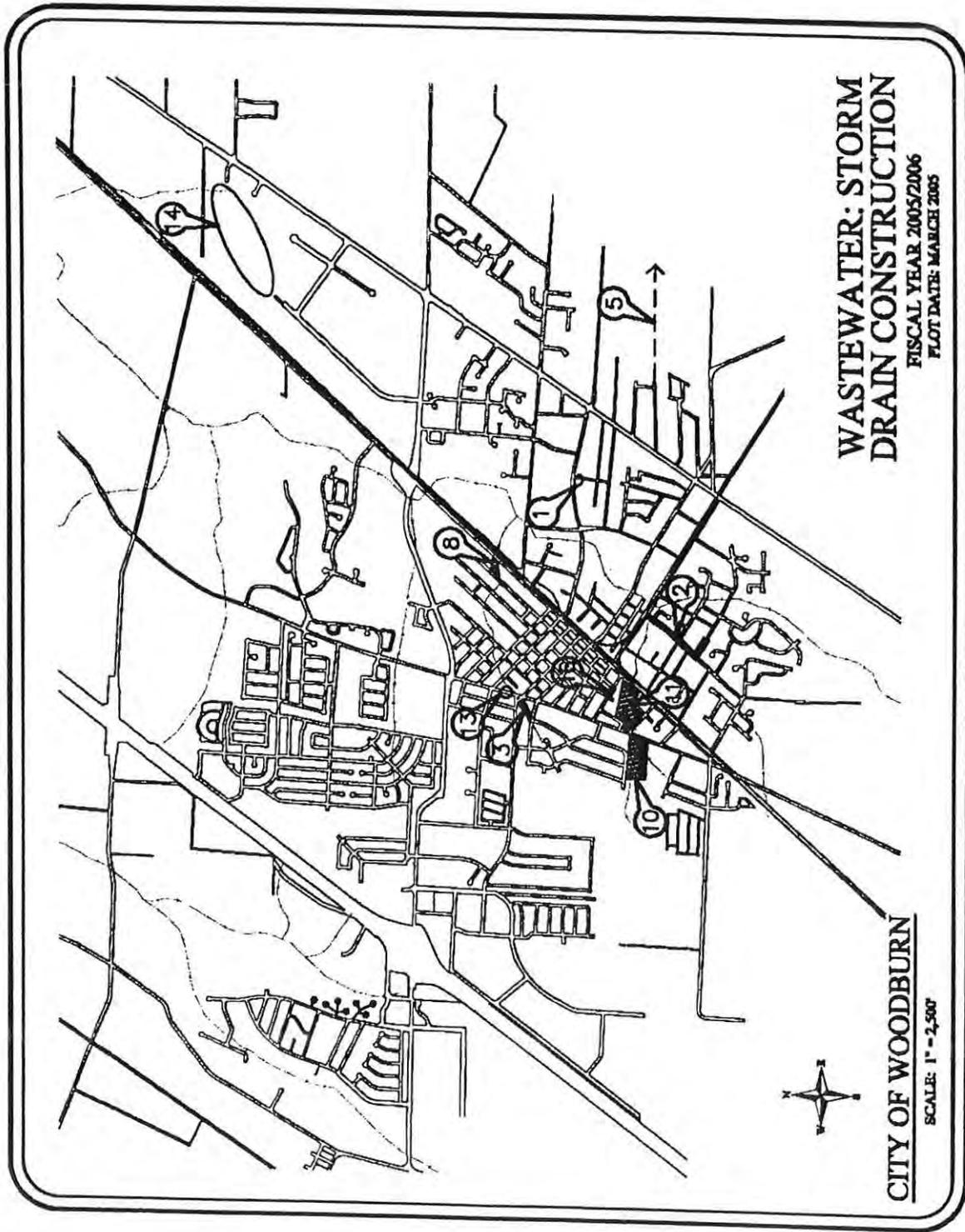
STREET PREVENTATIVE
 MAINTENANCE: FAIR STREETS-
 3/4" TO 1" LIFT "D" MIX

FISCAL YEAR 2005/2006
 PLOT DATE: MARCH 2005







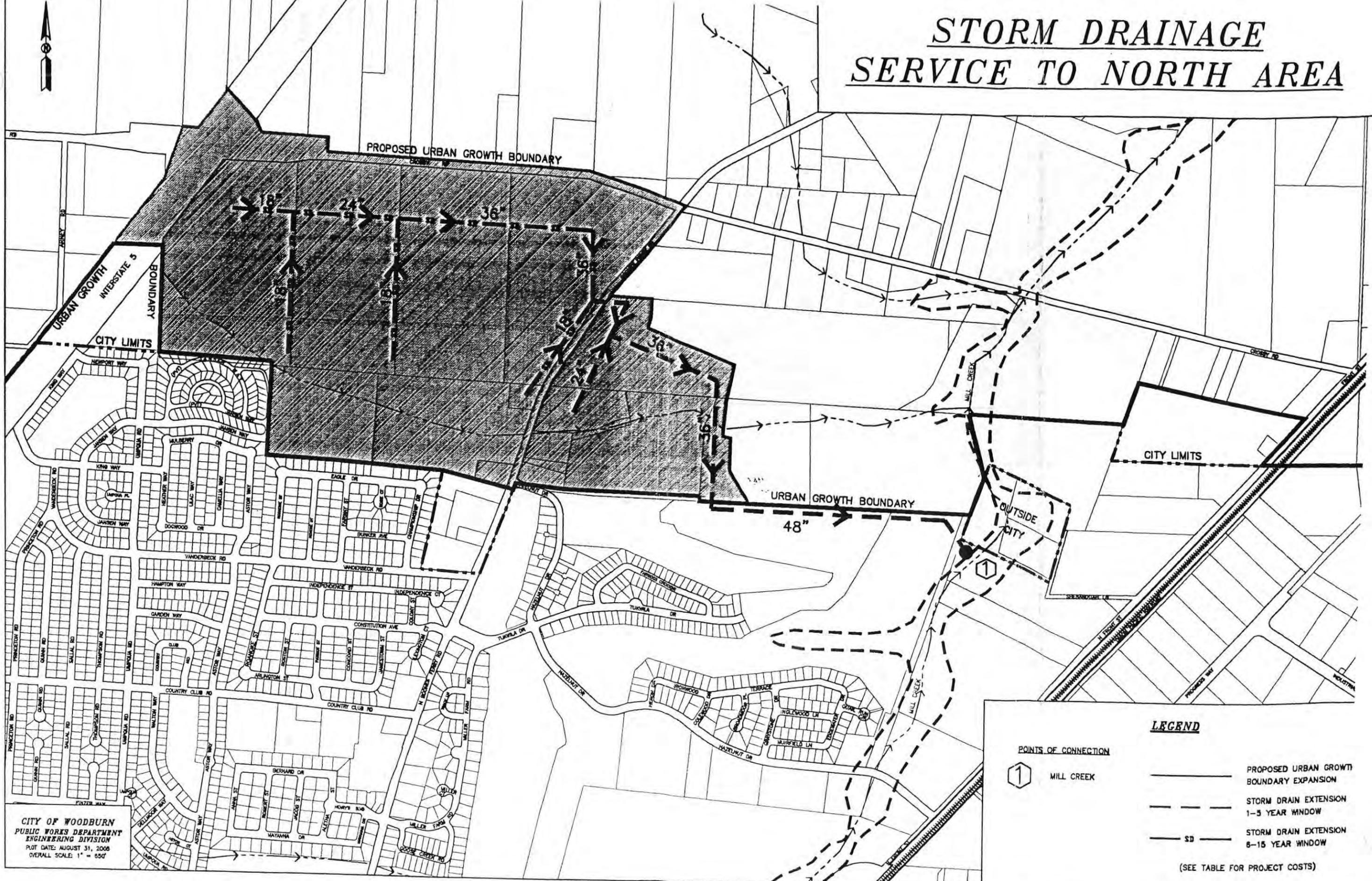


APPENDIX B

CITY OF WOODBURN

**MAPS OF PUBLIC FACILITIES PROJECTS
TO SERVE UGB EXPANSION AREAS**

STORM DRAINAGE SERVICE TO NORTH AREA



CITY OF WOODBURN
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
PLOT DATE: AUGUST 31, 2008
OVERALL SCALE: 1" = 650'

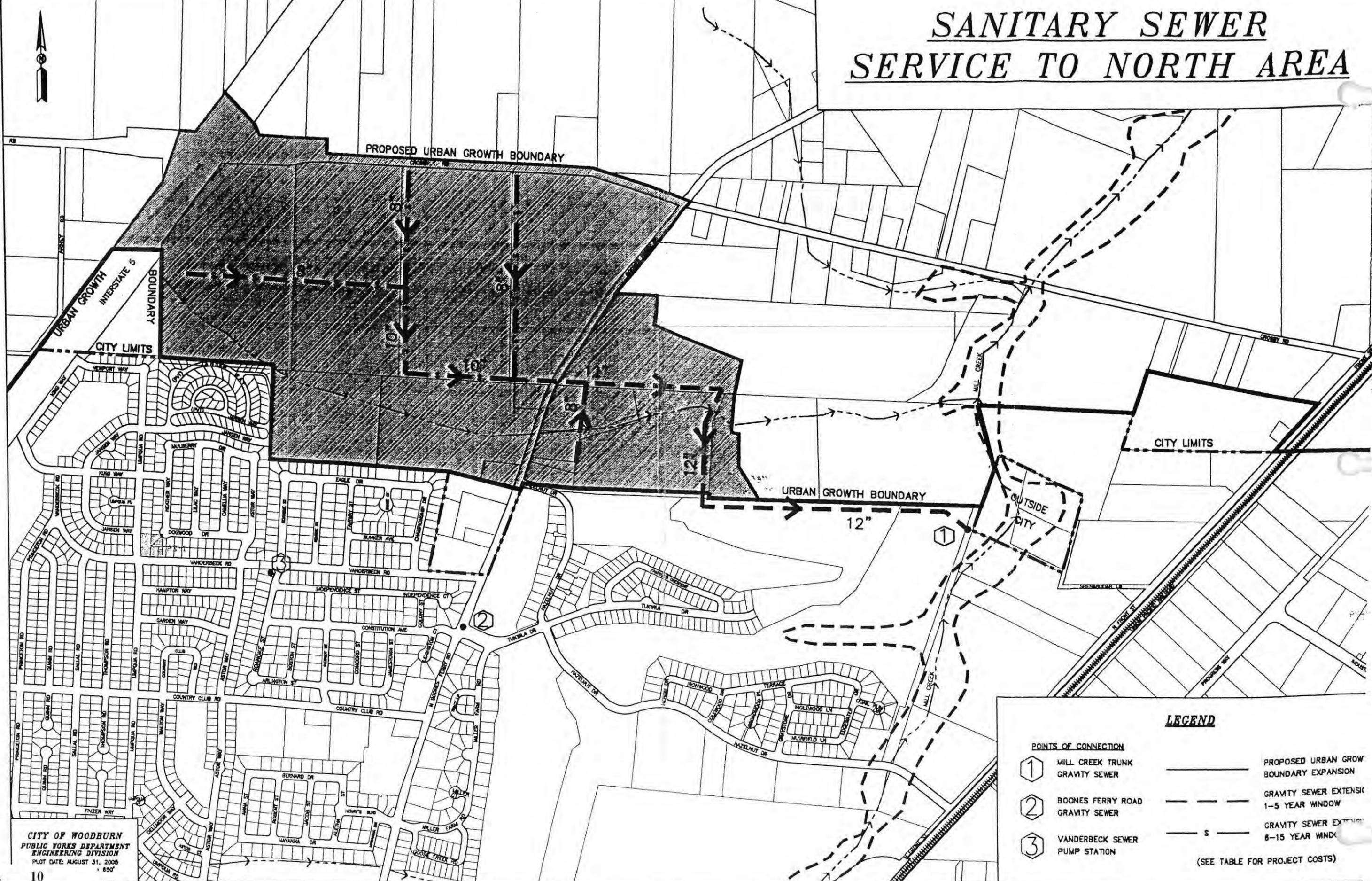
LEGEND

POINTS OF CONNECTION
1 MILL CREEK

PROPOSED URBAN GROWTH BOUNDARY EXPANSION
 STORM DRAIN EXTENSION 1-5 YEAR WINDOW
 SD STORM DRAIN EXTENSION 6-15 YEAR WINDOW

(SEE TABLE FOR PROJECT COSTS)

SANITARY SEWER SERVICE TO NORTH AREA

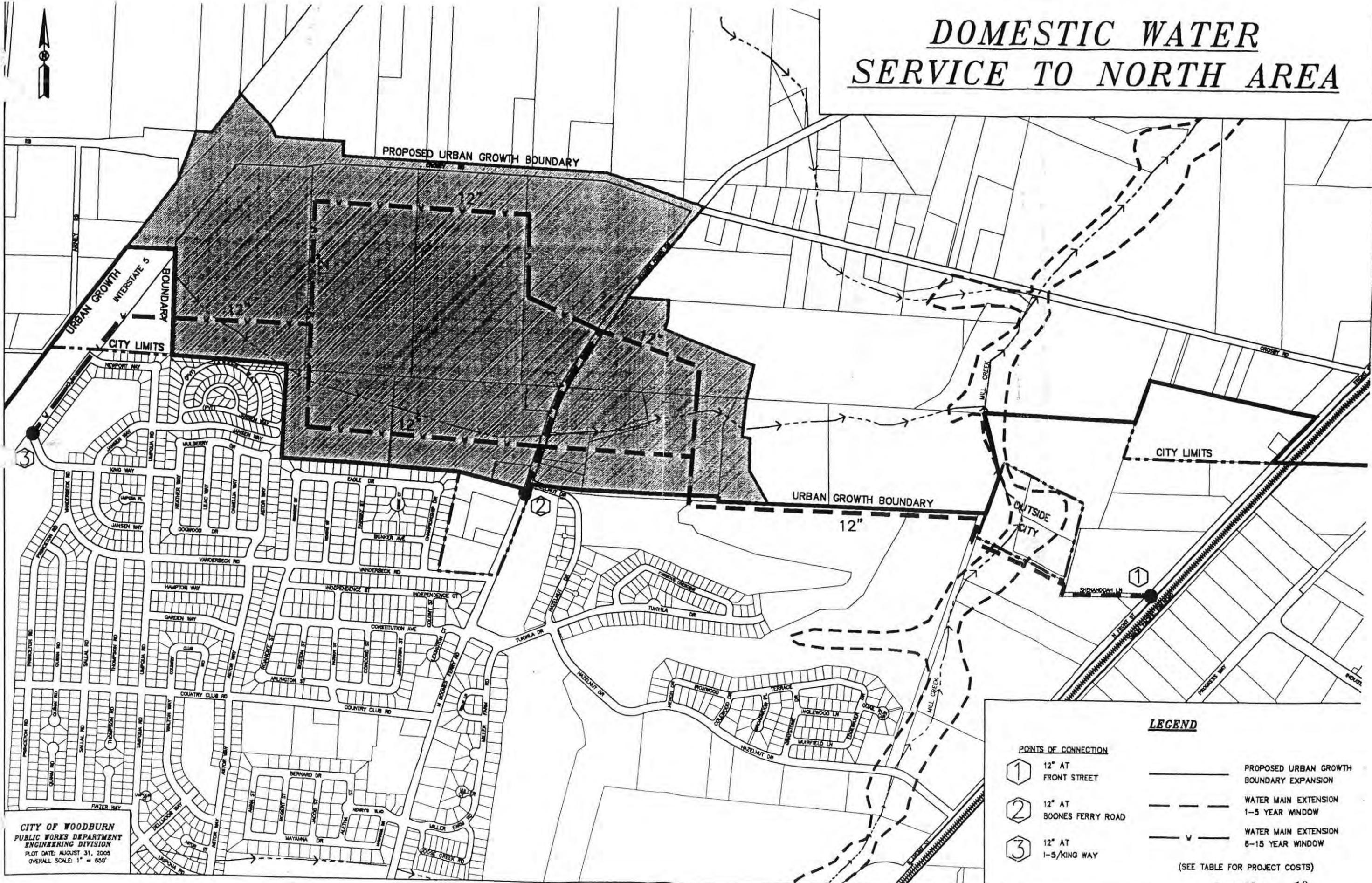


CITY OF WOODBURN
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
PLOT DATE: AUGUST 31, 2005
1" = 850'

LEGEND

<p>POINTS OF CONNECTION</p> <p>① MILL CREEK TRUNK GRAVITY SEWER</p> <p>② BOONES FERRY ROAD GRAVITY SEWER</p> <p>③ VANDERBECK SEWER PUMP STATION</p>	<p>————— PROPOSED URBAN GROW BOUNDARY EXPANSION</p> <p>- - - - - GRAVITY SEWER EXTENSION 1-5 YEAR WINDOW</p> <p>— S — GRAVITY SEWER EXTENSION 6-15 YEAR WINDOW</p> <p style="text-align: right;">(SEE TABLE FOR PROJECT COSTS)</p>
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DOMESTIC WATER SERVICE TO NORTH AREA



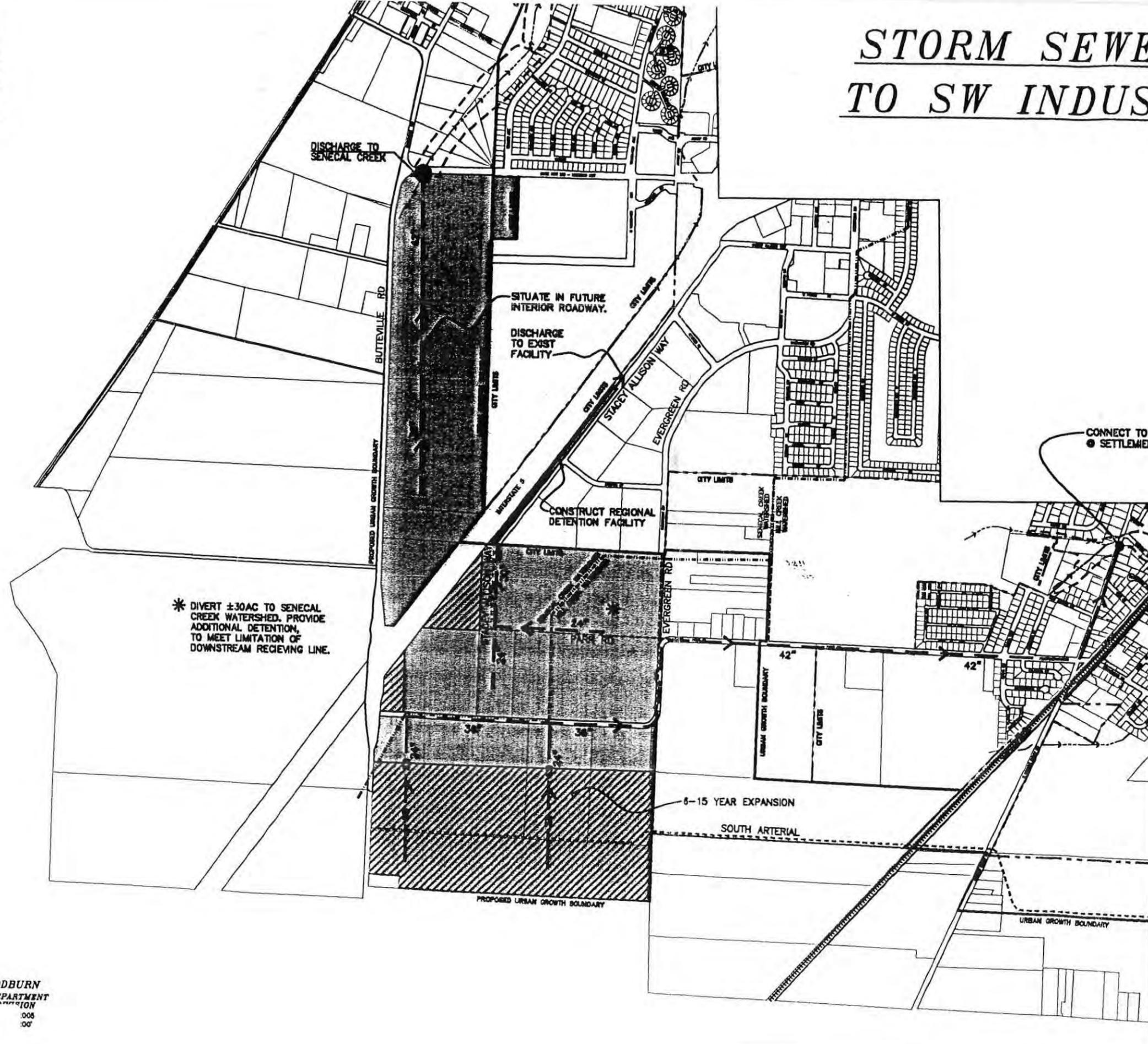
CITY OF WOODBURN
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
PLOT DATE: AUGUST 31, 2009
OVERALL SCALE: 1" = 650'

LEGEND

<p>POINTS OF CONNECTION</p> <p>① 12" AT FRONT STREET</p> <p>② 12" AT BOONES FERRY ROAD</p> <p>③ 12" AT 1-5/KING WAY</p>	<p>———— PROPOSED URBAN GROWTH BOUNDARY EXPANSION</p> <p>----- WATER MAIN EXTENSION 1-5 YEAR WINDOW</p> <p>- - - - WATER MAIN EXTENSION 6-15 YEAR WINDOW</p>
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(SEE TABLE FOR PROJECT COSTS)

STORM SEWER SERVICE TO SW INDUSTRIAL AREA



* DIVERT ±30AC TO SENECALE CREEK WATERSHED. PROVIDE ADDITIONAL DETENTION, TO MEET LIMITATION OF DOWNSTREAM RECEIVING LINE.

CONNECT TO EXISTING SD
● SETTLER CROSSING.

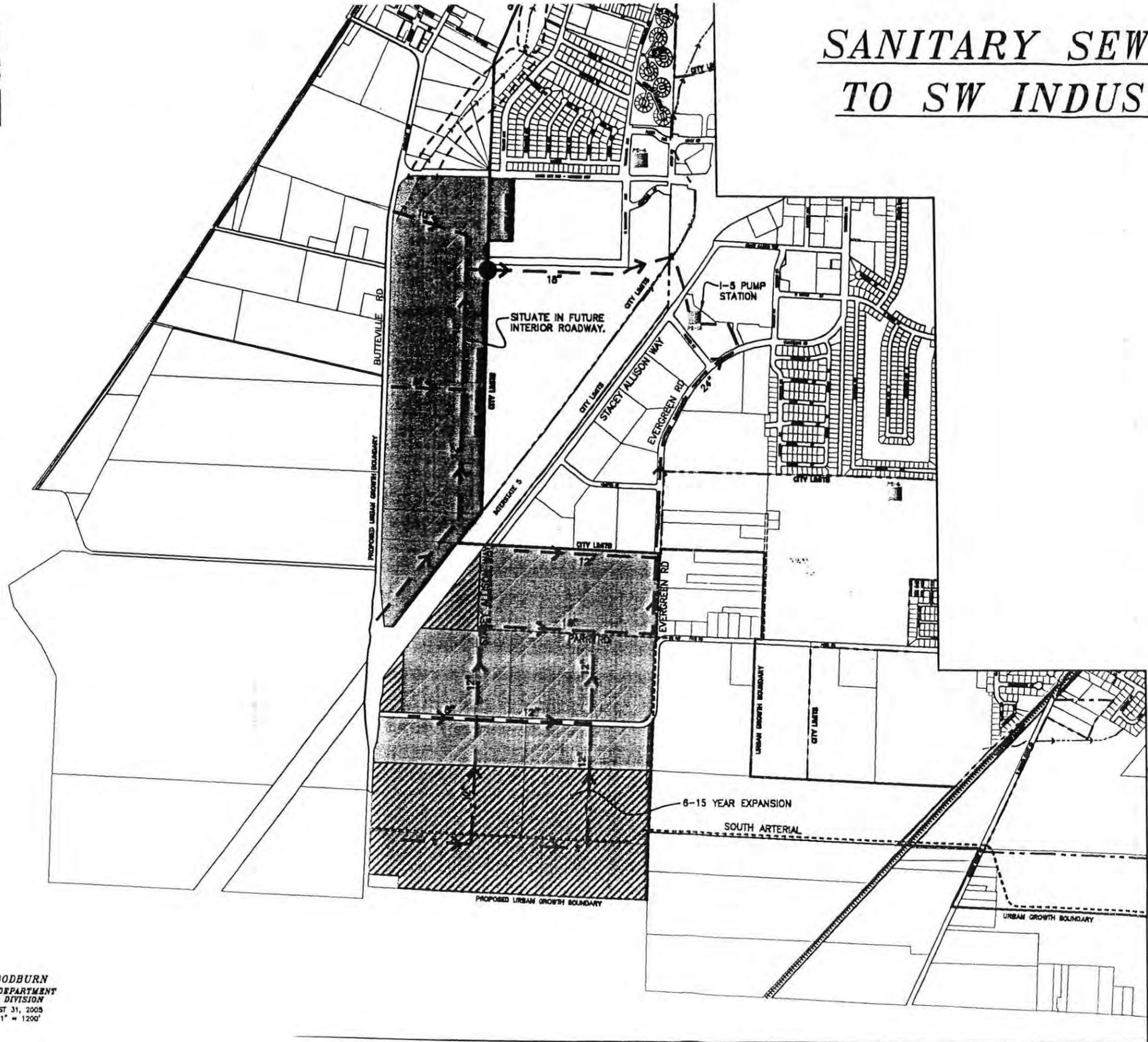
LEGEND

- BASIN BOUNDARY
- PIPES NECC. TO SERVE 0-5 YEAR WINDOW
- SD --- PIPES NECC. TO SERVE 6-15 YEAR WINDOW

(SEE TABLE FOR PROJECT COSTS)

CITY OF WOODBURN
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SANITARY SEWER SERVICE TO SW INDUSTRIAL AREA



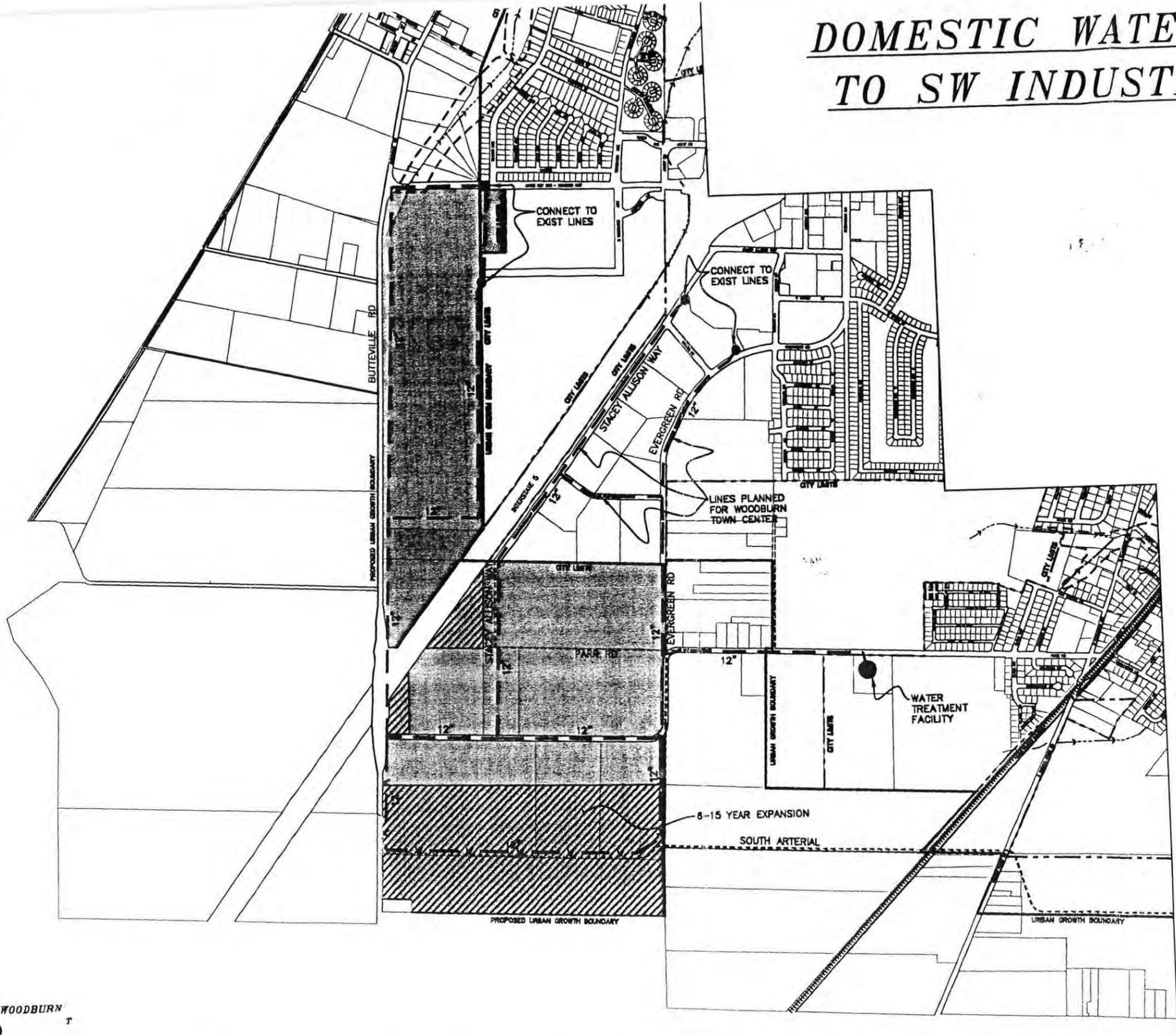
CITY OF WOODBURN
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
PLOT DATE: AUGUST 31, 2005
OVERALL SCALE: 1" = 1200'

LEGEND

- — — — — PIPES NECC. TO SERVE 0-5 YEAR WINDOW
- S — — — PIPES NECC. TO SERVE 6-15 YEAR WINDOW

(SEE TABLE FOR PROJECT COSTS)

DOMESTIC WATER SERVICE TO SW INDUSTRIAL AREA



LEGEND

- — — — — PIPES NECC. TO SERVE 0-5 YEAR WINDOW
 - w — — — PIPES NECC. TO SERVE 6-15 YEAR WINDOW
- (SEE TABLE FOR PROJECT COSTS)

CITY OF WOODBURN

Methodology for Calculations - Urban Growth Boundary Expansion

City of Woodburn – Public Works Department

April 2005

1. Public Works provided assistance to Community Development (Comm. Dev) in preparation of estimated costs for infrastructure related to proposed expansion of Urban Growth Boundary.
2. Comm. Dev determined 8 subareas for expansion. Public Works was provided mapped limits for the subareas and proposed land use designation within each of the areas.
3. Land use categories were as Residential, Commercial, and Industrial. Combinations were devised by application of formulas, without describing the location within a mapped area where any particular land use might occur.
4. Public Works was charged with estimating costs for water, storm sewer, and sanitary sewer within the boundary of each of the 8 subareas.
5. The physical size (in acres), of each land use for each subarea was calculated using CAD.
6. Master Plan criteria for water consumption, sanitary sewer flow rates and storm water runoff were used to determine values for each land use. Sizes of conveyance facilities were calculated for all areas by uniformly applying derived flow rates. Conceptual grid patterns for distribution pipes, sewer collection lines, and storm water collection lines were devised. The conceptual patterns were extrapolated and reduced to formulas for costs to serve on an acreage basis. Generally, the delivery of service to each sub area was considered to occur at one Point of Connection. This simplification did not consider market-driven development factors that would likely produce need for a greater number of connection points in the future, depending on the geographical extent and location of demand.
7. Based on CIP cost records (maintained by Engineering staff) and System Development Charges from Comm. Dev Planning staff, a cost per acre for each land use type was derived and are as follows;

Water Systems: \$5.1K/AC	Residential = \$9.0K/AC	Comm./Industrial =
Sanitary Sewer: \$5.0K/AC	Residential = \$10.8K/AC	Comm./Industrial =
Storm Sewer: \$3.6K/AC	Residential = \$7.8K/AC	Comm./Industrial =

8. Flow rates for these three infrastructure systems are as follows;

Water System

Residential = 1,315 gpd/AC (Avg.), 5,130 gpd/AC (Max.), 120,000 g/2hr.
Commercial/Industrial = 382 gpd/AC (Avg.), 1,490 gpd/AC (Max.), 600,000 g/2hr.

Sanitary Sewer

Residential = 1,420 gpd/AC
Commercial/Industrial = 700 gpd/AC

Storm Sewer

All areas: 0.5 cubic feet per second (cfs) per acre This empirical value was applied uniformly, regardless of projected land use, because little difference was discernable between runoff factors in conditions of a design storm.

Discharge from subareas larger than 150 acres were analyzed as Primary Drainage ways, in accordance with definitions from the Storm Drainage Master Plan (SDMP). Areas greater than 50, but less than 150 acres were described as Secondary Drainage ways. The SDMP instructs that conveyance systems for Primary Drainage ways accommodate runoff from 100-year event. Secondary Drainage ways are designed for 50-year events. The sizes of pipes were determined based upon their estimated slope and approximate design runoff for the tributary subarea.

9. The estimates considered that planning has already been made for some major infrastructure projects (mostly within the current Service Areas, and shown in a five-year plan called Capital Improvement Program, or "CIP"). Calculations were performed assuming that water, sanitary sewer, and storm drainage Capital Improvement Projects shown in the budget for fiscal year 2004-2005 were accomplished before any of these expansion projects were under taken.
10. Some infrastructure elements within the existing UGB would need upgrading to serve individual expansion subareas. Some of these improvements were not included in the CIP. Where additional improvements were necessary to existing systems situated within the existing service limits, the cost of improvements was estimated by application of historic construction cost records. These costs were added to other cost elements related to provision of service within each subarea. Included were water booster stations and sanitary sewer pump stations whose locations and sizes are shown on work maps that were prepared in course of the work.

REGION No. 1

GENERAL:

- Approximately 655 AC total areas. For evaluation purposes, this region was divided into 360 AC of Residential and 240 AC of Commercial/Industrial, 55 acres have been excluded from the total for flood plain riparian areas.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system can be looped to the adjacent existing system without requiring any additional distribution line between systems.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (2.93 MGD).
- Estimated cost of construction of distribution infrastructure is \$4.48 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- This region would be expected to require construction of a new lift station in the Northern most point at an estimated cost of \$600,000.
- The new lift station would then require a new gravity line to Boones Ferry Road at an estimated cost of \$400,000.
- Estimated new collections systems cost is \$5.10 million and will generate an approximate load of 1.05 cfs.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- Natural drainage appears adequate to handle outfall(s) to both fingers of Senecal Cr. to service this area, approximate 300 cfs.
- Estimated new collections systems cost is \$4.17 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

COST ESTIMATE SUMMARY:

Water Improvements	\$4,480,000
Sanitary Sewer	\$6,100,000
Storm Sewer	\$4,170,000
Total	\$14,750,000

REGION No. 2

Revisions, July 01, 2005

Item No. 10
Page 845

GENERAL:

- Approximately 675 AC total area. For evaluation purposes this region was divided into 440 AC of Residential and 210 AC of Commercial/Industrial. 25 acres have been excluded from the total for flood plain riparian areas.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system will require extension of the existing distribution system by approximately 1300LF of 12-inch dia. main looped to the adjacent existing system at a cost of \$180,000.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (3.3 MGD).
- Estimated cost of construction of distribution infrastructure is \$5.02 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- This region would require construction of a new gravity system to connect to the existing system at the North end of Boones Ferry Rd *and/or the Mill Creek Interceptor*.
- From the Boones Ferry Rd. connection point, approximately 4000 LF of collector will have to be upsized to the Goose Cr. connection of the parallel westerly reliever at a cost of \$500,000.
- Estimated new collection systems cost is \$5.78 million and will generate an approximate load of 1.19 cfs
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- Natural drainage appears adequate to handle outfall(s) to upper Mill Cr. to service this area, approximately 325 cfs.
- Estimated new collection systems cost is \$4.17 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

COST ESTIMATE SUMMARY:

Water Improvements	\$ 5,200,000
Sanitary Sewer	\$ 6,280,000
Storm Sewer	\$ 4,170,000
Total	\$15,650,000

Revisions, July 01, 2005

REGION No. 3

GENERAL:

- Approximately 330 AC total area. For evaluation purposes this region was divided into 100 AC of Residential and 230 AC of Commercial/Industrial.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system will require extension of the existing distribution system by approximately 400LF of 12-inch dia. main looped to the adjacent existing system at a cost of \$60,000.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (1.6 MGD).
- Estimated cost of construction of distribution infrastructure is \$2.09 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- This region would require construction of a new gravity system to connect to the existing system at Industrial Pump Station on Industrial Way.
- From the connection point, approximately 1200 LF of collector will have to be upsized to the Industrial Way Pump Station at a cost of \$265,000.
- Estimated new collection systems cost is \$2.25 million and will generate an approximate load of 0.5 cfs.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- Natural drainage is adequate to handle outfall of only a small portion to upper Mill Cr. The bulk of the region would require construction of approximately 1400 LF of 78-inch dia. pipeline Easterly to *natural tributary* to the Pudding River at a cost of \$521,000, approximately 167 cfs.
- Estimated new collection systems cost is \$1.62 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

COST ESTIMATE SUMMARY:

Water Improvements	\$ 2,150,000
Sanitary Sewer	\$ 2,515,000
Storm Sewer	<u>\$ 2,141,000</u>
Total	<u>\$ 6,806,000</u>

Item No.	<u>10</u>
Page	<u>847</u>

GENERAL:

- Approximately 343 AC total area. For evaluation purposes this region was determined to be all Residential and no Commercial/Industrial.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system will require extension of the existing distribution system by approximately 1100LF of 12-inch dia. main looped to the adjacent existing system at a cost of \$154,000.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (1.88 MGD).
- Estimated cost of construction of distribution infrastructure is \$3.1 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- This region would require construction of a new lift station, off Hwy. 211 then a 5000 LF of force main to the WWTP at a cost of \$1.5 million.
- Estimated new collections systems cost is \$3.70 million and will generate an approximate load of 0.75 cfs.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- Natural drainage is inadequate to handle outfall. Runoff would, therefore, require construction of approximately 2000 LF of 78-inch dia. pipeline Easterly to the Pudding River at a cost of \$745,000, approximately 170 cfs.
- Estimated new collections systems cost is \$2.68 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

COST ESTIMATE SUMMARY:

Water Improvements	\$ 3,254,000
Sanitary Sewer	\$ 5,200,000
Storm Sewer	<u>\$ 3,425,000</u>
Total	<u>\$11,879,000</u>

Revisions July 01, 2005

REGION No. 5

GENERAL:

- Approximately 431 AC total area. For evaluation purposes this region was assigned into 431 AC of Commercial/Industrial and no Residential.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system will require extension of the existing distribution system by approximately 3600LF of 12-inch dia. main looped at a cost of \$500,000.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (1.24 MGD).
- Estimated cost of construction of distribution infrastructure is \$2.20 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- This region will require construction of a new lift station in the Northwest corner of the region at an estimated cost of \$350,000.
- The new lift station would then require a new force main of approximately 4800 LF to connect to the existing gravity collection system at the Mill Cr. trunk line off of Cleveland St. at an estimated cost of \$750,000.
- Estimated new collections systems cost is \$2.16 million and will generate an approximate load of 0.50 cfs.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- Natural drainage is inadequate to handle outfall. Runoff, therefore, requires construction of approximately 4500 LF of 84-inch dia. pipeline Easterly to the Pudding River at a cost of \$2.0 million, approximately 216 cfs.
- Estimated new collections systems cost is \$1.55 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

Cost Estimate Summary:

Water Improvements	\$ 2,700,000
Sanitary Sewer	\$ 3,260,000
Storm Sewer	<u>\$ 3,150,000</u>
Total	\$ 9,110,000

GENERAL:

- Approximately 191AC total area. For evaluation purposes this region was assigned into 189 AC of Residential and no Commercial/Industrial, 2 acres have been excluded from the total for flood plain riparian areas.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system will require extension of the existing distribution system by approximately 5000LF of 12-inch dia. main looped at a cost of \$600,000.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (1.09 MGD).
- Estimated cost of construction of distribution infrastructure is \$1.7 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- This region will require construction of a new lift station along the Southerly finger of Mill Cr. and behind Shalimar trailer park at a cost of \$350,000.
- The new lift station would then require a new force main of approximately 1800 LF to connect to the existing gravity collection system at Bridlewood Ln. and Brown St. at an estimated cost of \$250,000.
- Estimated new collections systems cost is \$2.04 million and will generate an approximate load of 0.40 cfs.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- Natural drainage appears adequate to handle outfall(s) to South Mill Cr. to service this area, approximately 95 cfs.
- Estimated new collections systems cost is \$1.47 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

COST ESTIMATE SUMMARY:

Water Improvements	\$ 2,300,000
Sanitary Sewer	\$ 2,640,000
Storm Sewer	\$ 1,470,000
Total	\$ 6,410,000

REGION No. 7

GENERAL:

- Approximately 510 AC total area. For evaluation purposes this region was divided into 380 AC of Residential and 130 AC of Commercial/Industrial.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system will require extension of the existing distribution system by approximately 6100 LF of 12-inch dia. main looped at a cost of \$700,000.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (2.87 MGD).
- Estimated cost of construction of distribution infrastructure is \$4.1 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- This region will require construction of 1000 LF of new gravity sewer line to connect to the existing system at the South end of Harvard St. at a cost of \$80,000.
- The existing gravity collection system at Harvard St. would require being upsized for approximately 3300 LF to I-5 pump station at an estimated cost of \$250,000.
- Estimated new collections systems cost is \$4.77 million and will generate an approximate load of 1.0 cfs.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- A new collection system would connect to the existing system on the West end of Parr Rd. and require upsizing the existing collector to a 84-inch dia. line at a cost of \$1.7 Million, approximately 255 cfs.
- Estimated new collections systems cost is \$3.44 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

COST ESTIMATE SUMMARY:

Water Improvements	\$ 4,790,000
Sanitary Sewer	\$ 5,100,000
Storm Sewer	<u>\$ 5,140,000</u>
Total	<u>\$15,030,000</u>

REGION No. 8

GENERAL:

- Approximately 755 AC total area. For evaluation purposes this region was divided into 457 AC of Residential and 298 AC of Commercial/Industrial.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system can be looped to the adjacent existing system without requiring any additional distribution line between systems.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (3.5 MGD).
- Estimated cost of construction of distribution infrastructure is \$5.62 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- A new collection system would connect to the existing system on the West end of S. Woodland Ave. flowing to I-5 pump station.
- Existing collector would require upsizing to a 24-inch dia. line at a cost of \$250,00.
- Estimated new collections systems cost is \$6.42 million and will generate an approximate load of 1.32 cfs.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- Natural drainage appears adequate to handle outfall(s) to both fingers of Senecal Cr. to service this area. Approximately 375 cfs.
- Estimated new collections systems cost is \$4.63 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

COST ESTIMATE SUMMARY:

Water Improvements	\$5,620,000
Sanitary Sewer	\$6,670,000
Storm Sewer	<u>\$4,630,000</u>
Total	\$16,920,000

Revisions, July 01, 2005

**S.A.P.
EVALUATION OF WATER REQUIREMENTS FOR UGB INCREASE**

PROP ZONE	RES AC	COMM/IND ACREAGE	RESIDENTIAL		COMMERCIAL/INDUSTRIAL		TOTAL RES FIRE FLOW (2 HRS)	TOTAL COM/IND FIRE FLOW (2 HRS)	TOTAL MDD W/FF
			AVERAGE DD 1315.4GPD/AC	MAXIMUM DD 5130.2gpd/AC	AVERAGE DD 381.9gpd/AC	MAXIMUM DD 1489.4gpd/AC			
1	362	239	476,175	1,857,132	92,995	355,967	1,977,132	955,967	2,933,099
2	436	214	573,514	2,236,767	83,267	318,732	2,356,767	918,732	3,275,499
3	100	234	131,540	513,020	91,049	348,520	633,020	948,520	1,581,540
4	343	0	451,182	1,759,659	0	0	1,879,659	0	1,879,659
5	0	431	0	0	167,702	641,931	0	1,241,931	1,241,931
6	189	0	248,611	969,608	0	0	1,089,608	0	1,089,608
7	382	128	502,483	1,959,736	49,805	190,643	2,079,736	790,643	2,870,380
8	457	296	601,138	2,344,501	115,174	440,862	2,464,501	1,040,862	3,505,364
SUB-TOTAL	2,269	1,542	2,984,643	11,640,424	599,992	2,296,655	12,480,424	5,896,655	18,377,079

NOTE: Phase III of WTP build out will have producible product of 10.8 MGD and 6.1 MG storage.

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Original Date Thur. March 18, 2004
Printed Date 10/28/2005 3:01 PM

Item No. 10
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STORM DRAIN COST ANALYSIS OF EXTENDED BOUNDARIES BY REGION

PROP ZONE	RES AC	COMM/IND ACREAGE	RESIDENTAL SD COST PER AC	COM/IND SD COST PER AC	TOTAL RESIDENTAL COST	TOTAL COM/IND COST	TOTAL	Q (cfs) BASED ON 0.5 CFS/AC
1	362	239	\$7,800.00	\$3,600.00	\$2,823,600.00	\$860,400.00	\$3,684,000.00	300.5
2	436	214	\$7,800.00	\$3,600.00	\$3,400,800.00	\$770,400.00	\$4,171,200.00	325
3	100	234	\$7,800.00	\$3,600.00	\$780,000.00	\$842,400.00	\$1,622,400.00	167
4	343	0	\$7,800.00	\$3,600.00	\$2,675,400.00	\$0.00	\$2,675,400.00	171.5
5	0	431	\$7,800.00	\$3,600.00	\$0.00	\$1,551,600.00	\$1,551,600.00	215.5
6	189	0	\$7,800.00	\$3,600.00	\$1,474,200.00	\$0.00	\$1,474,200.00	94.5
7	382	128	\$7,800.00	\$3,600.00	\$2,979,600.00	\$460,800.00	\$3,440,400.00	255
8	457	296	\$7,800.00	\$3,600.00	\$3,564,600.00	\$1,065,600.00	\$4,630,200.00	376.5
SUB-TOTAL		2,269	1,542		\$17,698,200.00	\$5,551,200.00	\$23,249,400.00	

NOTE: Cost per acre are based upon SDC Receipt history.

SANITARY SEWER COST ANALYSIS OF EXTENDED BOUNDARIES BY REGION

PROP ZONE	RES AC	COMM/IND ACREAGE	RESIDENTAL SD COST PER AC	COM/IND SD COST PER AC	TOTAL RESIDENTAL COST	TOTAL COM/IND COST	TOTAL
1	362	239	\$10,800.00	\$5,000.00	\$3,909,600.00	\$1,195,000.00	\$5,104,600.00
2	436	214	\$10,800.00	\$5,000.00	\$4,708,800.00	\$1,070,000.00	\$5,778,800.00
3	100	234	\$10,800.00	\$5,000.00	\$1,080,000.00	\$1,170,000.00	\$2,250,000.00
4	343	0	\$10,800.00	\$5,000.00	\$3,704,400.00	\$0.00	\$3,704,400.00
5	0	431	\$10,800.00	\$5,000.00	\$0.00	\$2,155,000.00	\$2,155,000.00
6	189	0	\$10,800.00	\$5,000.00	\$2,041,200.00	\$0.00	\$2,041,200.00
7	382	128	\$10,800.00	\$5,000.00	\$4,125,600.00	\$640,000.00	\$4,765,600.00
8	457	296	\$10,800.00	\$5,000.00	\$4,935,600.00	\$1,480,000.00	\$6,415,600.00
SUB-TOTAL	2,269	1,542			\$24,505,200.00	\$7,710,000.00	\$32,215,200.00

NOTE: Cost per acre are based upon SDC Receipt history.

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SANITARY SEWER FLOW RATES BY REGION

PROP ZONE	RES AC	COMM/IND ACREAGE	RESIDENTAL FLOW Rate 1420 GPD/AC	COM/IND FLOW Rate 700 GPD/AC	TOTAL FLOW TO POC PER DAY	CFS
1	362	239	514,040	167,300	681,340	1.05
2	436	214	619,120	149,800	768,920	1.19
3	100	234	142,000	163,800	305,800	0.47
4	343	0	487,060	0	487,060	0.75
5	0	431	0	301,700	301,700	0.47
6	189	0	268,380	0	268,380	0.42
7	382	128	542,440	89,600	632,040	0.98
8	457	296	648,940	207,200	856,140	1.32
SUB-TOTAL	2,269	1,542	3,221,980	1,079,400	4,301,380	6.66

WATER SUPPLY COST ANALYSIS OF EXTENDED BOUNDARIES BY REGION

PROP ZONE	RES AC	COMM/IND ACREAGE	RESIDENTAL SD COST PER AC	COM/IND SD COST PER AC	TOTAL RESIDENTAL COST	TOTAL COM/IND COST	TOTAL
1	362	239	\$9,000.00	\$5,100.00	\$3,258,000.00	\$1,218,900.00	\$4,476,900.00
2	436	214	\$9,000.00	\$5,100.00	\$3,924,000.00	\$1,091,400.00	\$5,015,400.00
3	100	234	\$9,000.00	\$5,100.00	\$900,000.00	\$1,193,400.00	\$2,093,400.00
4	343	0	\$9,000.00	\$5,100.00	\$3,087,000.00	\$0.00	\$3,087,000.00
5	0	431	\$9,000.00	\$5,100.00	\$0.00	\$2,198,100.00	\$2,198,100.00
6	189	0	\$9,000.00	\$5,100.00	\$1,701,000.00	\$0.00	\$1,701,000.00
7	382	128	\$9,000.00	\$5,100.00	\$3,438,000.00	\$652,800.00	\$4,090,800.00
8	457	296	\$9,000.00	\$5,100.00	\$4,113,000.00	\$1,509,600.00	\$5,622,600.00
SUB-TOTAL	2,269	1,542			\$20,421,000.00	\$7,864,200.00	\$28,285,200.00

NOTE: Cost per acre are based upon SDC Receipt history.

Methodology for Calculations - Urban Growth Boundary Expansion

City of Woodburn – Public Works Department

April 2005

1. Public Works provided assistance to Community Development (Comm. Dev) in preparation of estimated costs for infrastructure related to proposed expansion of Urban Growth Boundary.
2. Comm. Dev determined 8 subareas for expansion. Public Works was provided mapped limits for the subareas and proposed land use designation within each of the areas.
3. Land use categories were as Residential, Commercial, and Industrial. Combinations were devised by application of formulas, without describing the location within a mapped area where any particular land use might occur.
4. Public Works was charged with estimating costs for water, storm sewer, and sanitary sewer within the boundary of each of the 8 subareas.
5. The physical size (in acres), of each land use for each subarea was calculated using CAD.
6. Master Plan criteria for water consumption, sanitary sewer flow rates and storm water runoff were used to determine values for each land use. Sizes of conveyance facilities were calculated for all areas by uniformly applying derived flow rates. Conceptual grid patterns for distribution pipes, sewer collection lines, and storm water collection lines were devised. The conceptual patterns were extrapolated and reduced to formulas for costs to serve on an acreage basis. Generally, the delivery of service to each sub area was considered to occur at one Point of Connection. This simplification did not consider market-driven development factors that would likely produce need for a greater number of connection points in the future, depending on the geographical extent and location of demand.
7. Based on CIP cost records (maintained by Engineering staff) and System Development Charges from Comm. Dev Planning staff, a cost per acre for each land use type was derived and are as follows;

Water Systems: \$5.1K/AC	Residential = \$9.0K/AC	Comm./Industrial =
Sanitary Sewer: \$5.0K/AC	Residential = \$10.8K/AC	Comm./Industrial =
Storm Sewer: \$3.6K/AC	Residential = \$7.8K/AC	Comm./Industrial =

8. Flow rates for these three infrastructure systems are as follows;

Water System

Residential = 1,315 gpd/AC (Avg.), 5,130 gpd/AC (Max.), 120,000 g/2hr.
Commercial/Industrial = 382 gpd/AC (Avg.), 1,490 gpd/AC (Max.), 600,000 g/2hr.

Sanitary Sewer

Residential = 1,420 gpd/AC
Commercial/Industrial = 700 gpd/AC

Storm Sewer

All areas: 0.5 cubic feet per second (cfs) per acre This empirical value was applied uniformly, regardless of projected land use, because little difference was discernable between runoff factors in conditions of a design storm.

Discharge from subareas larger than 150 acres were analyzed as Primary Drainage ways, in accordance with definitions from the Storm Drainage Master Plan (SDMP). Areas greater than 50, but less than 150 acres were described as Secondary Drainage ways. The SDMP instructs that conveyance systems for Primary Drainage ways accommodate runoff from 100-year event. Secondary Drainage ways are designed for 50-year events. The sizes of pipes were determined based upon their estimated slope and approximate design runoff for the tributary subarea.

9. The estimates considered that planning has already been made for some major infrastructure projects (mostly within the current Service Areas, and shown in a five-year plan called Capital Improvement Program, or "CIP"). Calculations were performed assuming that water, sanitary sewer, and storm drainage Capital Improvement Projects shown in the budget for fiscal year 2004-20005 were accomplished before any of these expansion projects were under taken.
10. Some infrastructure elements within the existing UGB would need upgrading to serve individual expansion subareas. Some of these improvements were not included in the CIP. Where additional improvements were necessary to existing systems situated within the existing service limits, the cost of improvements was estimated by application of historic construction cost records. These costs were added to other cost elements related to provision of service within each subarea. Included were water booster stations and sanitary sewer pump stations whose locations and sizes are shown on work maps that were prepared in course of the work.

REGION No. 1

GENERAL:

- Approximately 655 AC total areas. For evaluation purposes, this region was divided into 360 AC of Residential and 240 AC of Commercial/Industrial, 55 acres have been excluded from the total for flood plain riparian areas.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system can be looped to the adjacent existing system without requiring any additional distribution line between systems.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (2.93 MGD).
- Estimated cost of construction of distribution infrastructure is \$4.48 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- This region would be expected to require construction of a new lift station in the Northern most point at an estimated cost of \$600,000.
- The new lift station would then require a new *gravity line to Boones Ferry Road* at an estimated cost of \$400,000.
- Estimated new collections systems cost is \$5.10 million and will generate an approximate load of 1.05 cfs.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- Natural drainage appears adequate to handle outfall(s) to both fingers of Senecal Cr. to service this area, approximate 300 cfs.
- Estimated new collections systems cost is \$4.17 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

COST ESTIMATE SUMMARY:

Water Improvements	\$4,480,000
Sanitary Sewer	\$6,100,000
Storm Sewer	<u>\$4,170,000</u>
Total	\$14,750,000

REGION No. 2

GENERAL:

- Approximately 675 AC total area. For evaluation purposes this region was divided into 440 AC of Residential and 210 AC of Commercial/Industrial. 25 acres have been excluded from the total for flood plain riparian areas.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system will require extension of the existing distribution system by approximately 1300LF of 12-inch dia. main looped to the adjacent existing system at a cost of \$180,000.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (3.3 MGD).
- Estimated cost of construction of distribution infrastructure is \$5.02 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- This region would require construction of a new gravity system to connect to the existing system at the North end of Boones Ferry Rd *and/or the Mill Creek Interceptor*.
- From the Boones Ferry Rd. connection point, approximately 4000 LF of collector will have to upsized to the Goose Cr. connection of the parallel westerly reliever at a cost of \$500,000.
- Estimated new collections systems cost is \$5.78 million and will generate an approximate load of 1.19 cfs
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- Natural drainage appears adequate to handle outfall(s) to upper Mill Cr. to service this area, approximately 325 cfs.
- Estimated new collections systems cost is \$4.17 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

COST ESTIMATE SUMMARY:

Water Improvements	\$ 5,200,000
Sanitary Sewer	\$ 6,280,000
Storm Sewer	<u>\$ 4,170,000</u>
Total	\$15,650,000

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REGION No. 3

GENERAL:

- Approximately 330 AC total area. For evaluation purposes this region was divided into 100 AC of Residential and 230 AC of Commercial/Industrial.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system will require extension of the existing distribution system by approximately 400LF of 12-inch dia. main looped to the adjacent existing system at a cost of \$60,000.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (1.6 MGD).
- Estimated cost of construction of distribution infrastructure is \$2.09 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- This region would require construction of a new gravity system to connect to the existing system at Industrial Pump Station on Industrial Way.
- From the connection point, approximately 1200 LF of collector will have to upsized to the Industrial Way Pump Station at a cost of \$265,000.
- Estimated new collections systems cost is \$2.25 million and will generate an approximate load of 0.5 cfs.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- Natural drainage is adequate to handle outfall of only a small portion to upper Mill Cr. The bulk of the region would require construction of approximately 1400 LF of 78-inch dia. pipeline Easterly to *natural tributary* to the Pudding River at a cost of \$521,000, approximately 167 cfs.
- Estimated new collections systems cost is \$1.62 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

COST ESTIMATE SUMMARY:

Water Improvements	\$ 2,150,000
Sanitary Sewer	\$ 2,515,000
Storm Sewer	\$ 2,141,000
Total	\$ 6,806,000

REGION No. 4

GENERAL:

- Approximately 343 AC total area. For evaluation purposes this region was determined to be all Residential and no Commercial/Industrial.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system will require extension of the existing distribution system by approximately 1100LF of 12-inch dia. main looped to the adjacent existing system at a cost of \$154,000.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (1.88 MGD).
- Estimated cost of construction of distribution infrastructure is \$3.1 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- This region would require construction of a new lift station, off Hwy. 211 then a 5000 LF of force main to the WWTP at a cost of \$1.5 million.
- Estimated new collections systems cost is \$3.70 million and will generate an approximate load of 0.75 cfs.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- Natural drainage is inadequate to handle outfall. Runoff would, therefore, require construction of approximately 2000 LF of 78-inch dia. pipeline Easterly to the Pudding River at a cost of \$745,000, approximately 170 cfs.
- Estimated new collections systems cost is \$2.68 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

COST ESTIMATE SUMMARY:

Water Improvements	\$ 3,254,000
Sanitary Sewer	\$ 5,200,000
Storm Sewer	<u>\$ 3,425,000</u>
Total	<u>\$11,879,000</u>

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REGION No. 5

GENERAL:

- Approximately 431 AC total area. For evaluation purposes this region was assigned into 431 AC of Commercial/Industrial and no Residential.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system will require extension of the existing distribution system by approximately 3600LF of 12-inch dia. main looped at a cost of \$500,000.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (1.24 MGD).
- Estimated cost of construction of distribution infrastructure is \$2.20 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- This region will require construction of a new lift station in the Northwest corner of the region at an estimated cost of \$350,000.
- The new lift station would then require a new force main of approximately 4800 LF to connect to the existing gravity collection system at the Mill Cr. trunk line off of Cleveland St. at an estimated cost of \$750,000.
- Estimated new collections systems cost is \$2.16 million and will generate an approximate load of 0.50 cfs.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- Natural drainage is inadequate to handle outfall. Runoff, therefore, requires construction of approximately 4500 LF of 84-inch dia. pipeline Easterly to the Pudding River at a cost of \$2.0 million, approximately 216 cfs.
- Estimated new collections systems cost is \$1.55 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

Cost Estimate Summary:

Water Improvements	\$ 2,700,000
Sanitary Sewer	\$ 3,260,000
Storm Sewer	<u>\$ 3,150,000</u>
Total	\$ 9,110,000

REGION No. 6

GENERAL:

- Approximately 191AC total area. For evaluation purposes this region was assigned into 189 AC of Residential and no Commercial/Industrial, 2 acres have been excluded from the total for flood plain riparian areas.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system will require extension of the existing distribution system by approximately 5000LF of 12-inch dia. main looped at a cost of \$600,000.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (1.09 MGD).
- Estimated cost of construction of distribution infrastructure is \$1.7 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- This region will require construction of a new lift station along the Southerly finger of Mill Cr. and behind Shalimar trailer park at a cost of \$350,000.
- The new lift station would then require a new force main of approximately 1800 LF to connect to the existing gravity collection system at Bridlewood Ln. and Brown St. at an estimated cost of \$250,000.
- Estimated new collections systems cost is \$2.04 million and will generate an approximate load of 0.40 cfs.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- Natural drainage appears adequate to handle outfall(s) to South Mill Cr. to service this area, approximately 95 cfs.
- Estimated new collections systems cost is \$1.47 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

COST ESTIMATE SUMMARY:

Water Improvements	\$ 2,300,000
Sanitary Sewer	\$ 2,640,000
Storm Sewer	<u>\$ 1,470,000</u>
Total	\$ 6,410,000

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REGION No. 7

GENERAL:

- Approximately 510 AC total area. For evaluation purposes this region was divided into 380 AC of Residential and 130 AC of Commercial/Industrial.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system will require extension of the existing distribution system by approximately 6100 LF of 12-inch dia. main looped at a cost of \$700,000.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (2.87 MGD).
- Estimated cost of construction of distribution infrastructure is \$4.1 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- This region will require construction of 1000 LF of new gravity sewer line to connect to the existing system at the South end of Harvard St. at a cost of \$80,000.
- The existing gravity collection system at Harvard St. would require being upsized for approximately 3300 LF to I-5 pump station at an estimated cost of \$250,000.
- Estimated new collections systems cost is \$4.77 million and will generate an approximate load of 1.0 cfs.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- A new collection system would connect to the existing system on the West end of Parr Rd. and require upsizing the existing collector to a 84-inch dia. line at a cost of \$1.7 Million, approximately 255 cfs.
- Estimated new collections systems cost is \$3.44 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

COST ESTIMATE SUMMARY:

Water Improvements	\$ 4,790,000
Sanitary Sewer	\$ 5,100,000
Storm Sewer	<u>\$ 5,140,000</u>
Total	<u>\$15,030,000</u>

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GENERAL:

- Approximately 755 AC total area. For evaluation purposes this region was divided into 457 AC of Residential and 298 AC of Commercial/Industrial.
- Flow rates for water; sewer and storm distribution and collection systems are based on zoning densities appropriate to the assigned land use and Master Plan consumption/contribution rates.
- When and where practical topographic geography was considered in gravity systems.
- This region was analyzed independent of other proposed regions.
- The analysis is based on all CIP projects, identified in the current Master Plan Documents, have been completed.

WATER DISTRIBUTION SYSTEM:

- A new distribution system can be looped to the adjacent existing system without requiring any additional distribution line between systems.
- Flow rates were based upon Master Plan use rates per capita and 2-hour fire durations (3.5 MGD).
- Estimated cost of construction of distribution infrastructure is \$5.62 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

SANITARY SEWER SYSTEM:

- A new collection system would connect to the existing system on the West end of S. Woodland Ave. flowing to I-5 pump station.
- Existing collector would require upsizing to a 24-inch dia. line at a cost of \$250,00.
- Estimated new collections systems cost is \$6.42 million and will generate an approximate load of 1.32 cfs.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

STORM SEWER SYSTEM:

- Natural drainage appears adequate to handle outfall(s) to both fingers of Senecal Cr. to service this area. Approximately 375 cfs.
- Estimated new collections systems cost is \$4.63 million.
- Analysis indicates the existing system (i.e. current 2004 service area) will support the improvements, estimated costs are shown below in the summary.

COST ESTIMATE SUMMARY:

Water Improvements	\$5,620,000
Sanitary Sewer	\$6,670,000
Storm Sewer	<u>\$4,630,000</u>
Total	\$16,920,000

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**S.A.P.
EVALUATION OF WATER REQUIREMENTS FOR UGB INCREASE**

PROP ZONE	RES AC	COMM/IND ACREAGE	RESIDENTAL		COMMERCIAL/INDUSTRIAL		TOTAL RES FIRE FLOW (2 HRS)	TOTAL COM/IND FIRE FLOW (2 HRS)	TOTAL MDD W/FF
			AVERAGE DD 1315.4GPD/AC	MAXIMUM DD 5130.2gpd/AC	AVERAGE DD 381.9gpd/AC	MAXIMUM DD 1489.4gpd/AC			
1	362	239	476,175	1,857,132	92,995	355,967	1,977,132	955,967	2,933,099
2	436	214	573,514	2,236,767	83,267	318,732	2,356,767	918,732	3,275,499
3	100	234	131,540	513,020	91,049	348,520	633,020	948,520	1,581,540
4	343	0	451,182	1,759,659	0	0	1,879,659	0	1,879,659
5	0	431	0	0	167,702	641,931	0	1,241,931	1,241,931
6	189	0	248,611	969,608	0	0	1,089,608	0	1,089,608
7	382	128	502,483	1,959,736	49,805	190,643	2,079,736	790,643	2,870,380
8	457	296	601,138	2,344,501	115,174	440,862	2,464,501	1,040,862	3,505,364
SUB-TOTAL	2,269	1,542	2,984,643	11,640,424	599,992	2,296,655	12,480,424	5,896,655	18,377,079

NOTE: Phase III of WTP build out will have producible product of 10.8 MGD and 6.1 MG storage.

STORM DRAIN COST ANALYSIS OF EXTENDED BOUNDARIES BY REGION

PROP ZONE	RES AC	COMM/IND ACREAGE	RESIDENTAL SD COST PER AC	COM/IND SD COST PER AC	TOTAL RESIDENTAL COST	TOTAL COM/IND COST	TOTAL	Q (cfs) BASED ON 0.5 CFS/AC
1	362	239	\$7,800.00	\$3,600.00	\$2,823,600.00	\$860,400.00	\$3,684,000.00	300.5
2	436	214	\$7,800.00	\$3,600.00	\$3,400,800.00	\$770,400.00	\$4,171,200.00	325
3	100	234	\$7,800.00	\$3,600.00	\$780,000.00	\$842,400.00	\$1,622,400.00	167
4	343	0	\$7,800.00	\$3,600.00	\$2,675,400.00	\$0.00	\$2,675,400.00	171.5
5	0	431	\$7,800.00	\$3,600.00	\$0.00	\$1,551,600.00	\$1,551,600.00	215.5
6	189	0	\$7,800.00	\$3,600.00	\$1,474,200.00	\$0.00	\$1,474,200.00	94.5
7	382	128	\$7,800.00	\$3,600.00	\$2,979,600.00	\$460,800.00	\$3,440,400.00	255
8	457	296	\$7,800.00	\$3,600.00	\$3,564,600.00	\$1,065,600.00	\$4,630,200.00	376.5
SUB-TOTAL		2,269	1,542		\$17,698,200.00	\$5,551,200.00	\$23,249,400.00	

NOTE: Cost per acre are based upon SDC Receipt history.

SANITARY SEWER COST ANALYSIS OF EXTENDED BOUNDARIES BY REGION

PROP ZONE	RES AC	COMM/IND ACREAGE	RESIDENTAL SD COST PER AC	COM/IND SD COST PER AC	TOTAL RESIDENTAL COST	TOTAL COM/IND COST	TOTAL
1	362	239	\$10,800.00	\$5,000.00	\$3,909,600.00	\$1,195,000.00	\$5,104,600.00
2	436	214	\$10,800.00	\$5,000.00	\$4,708,800.00	\$1,070,000.00	\$5,778,800.00
3	100	234	\$10,800.00	\$5,000.00	\$1,080,000.00	\$1,170,000.00	\$2,250,000.00
4	343	0	\$10,800.00	\$5,000.00	\$3,704,400.00	\$0.00	\$3,704,400.00
5	0	431	\$10,800.00	\$5,000.00	\$0.00	\$2,155,000.00	\$2,155,000.00
6	189	0	\$10,800.00	\$5,000.00	\$2,041,200.00	\$0.00	\$2,041,200.00
7	382	128	\$10,800.00	\$5,000.00	\$4,125,600.00	\$640,000.00	\$4,765,600.00
8	457	296	\$10,800.00	\$5,000.00	\$4,935,600.00	\$1,480,000.00	\$6,415,600.00
SUB-TOTAL	2,269	1,542			\$24,505,200.00	\$7,710,000.00	\$32,215,200.00

NOTE: Cost per acre are based upon SDC Receipt history.

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Original Date Thur. March 18, 2004
Printed Date 10/28/20053:01 PM

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SANITARY SEWER FLOW RATES BY REGION

PROP ZONE	RES AC	COMM/IND ACREAGE	RESIDENTIAL FLOW Rate 1420 GPD/AC	COM/IND FLOW Rate 700 GPD/AC	TOTAL FLOW TO POC PER DAY	CFS
1	362	239	514,040	167,300	681,340	1.05
2	436	214	619,120	149,800	768,920	1.19
3	100	234	142,000	163,800	305,800	0.47
4	343	0	487,060	0	487,060	0.75
5	0	431	0	301,700	301,700	0.47
6	189	0	268,380	0	268,380	0.42
7	382	128	542,440	89,600	632,040	0.98
8	457	296	648,940	207,200	856,140	1.32
SUB-TOTAL	2,269	1,542	3,221,980	1,079,400	4,301,380	6.66

WATER SUPPLY COST ANALYSIS OF EXTENDED BOUNDARIES BY REGION

PROP ZONE	RES AC	COMM/IND ACREAGE	RESIDENTIAL SD COST PER AC	COM/IND SD COST PER AC	TOTAL RESIDENTIAL COST	TOTAL COM/IND COST	TOTAL
1	362	239	\$9,000.00	\$5,100.00	\$3,258,000.00	\$1,218,900.00	\$4,476,900.00
2	436	214	\$9,000.00	\$5,100.00	\$3,924,000.00	\$1,091,400.00	\$5,015,400.00
3	100	234	\$9,000.00	\$5,100.00	\$900,000.00	\$1,193,400.00	\$2,093,400.00
4	343	0	\$9,000.00	\$5,100.00	\$3,087,000.00	\$0.00	\$3,087,000.00
5	0	431	\$9,000.00	\$5,100.00	\$0.00	\$2,198,100.00	\$2,198,100.00
6	189	0	\$9,000.00	\$5,100.00	\$1,701,000.00	\$0.00	\$1,701,000.00
7	382	128	\$9,000.00	\$5,100.00	\$3,438,000.00	\$652,800.00	\$4,090,800.00
8	457	296	\$9,000.00	\$5,100.00	\$4,113,000.00	\$1,509,600.00	\$5,622,600.00
SUB-TOTAL	2,269	1,542			\$20,421,000.00	\$7,864,200.00	\$28,285,200.00

NOTE: Cost per acre are based upon SDC Receipt history.

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EXHIBIT 1-C

1-C

**WOODBURN
TRANSPORTATION SYSTEM
PLAN**

(CH2M Hill, October 2005)

EXHIBIT 1-D

1-D

**WOODBURN LOCAL
WETLANDS INVENTORY LIST**

(Shapiro, 2000)

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Table 5. Significant Wetlands and Wetlands of Special Interest for Protection

Wetland Code	Results of Local Wetland Significance Assessment	Results of Wetlands of Special Interest for Protection Assessment
MC-1	<ul style="list-style-type: none"> • Wetland scores the highest rank for hydrologic control. • Wetland is rated in either the highest or second highest category for water quality AND borders a water quality limited stream as listed by DEQ. 	
MC-2	<ul style="list-style-type: none"> • Wetland scores the highest rank for hydrologic control. • Wetland is rated in either the highest or second highest category for water quality AND borders a water quality limited stream as listed by DEQ. 	
MC-3	<ul style="list-style-type: none"> • Wetland scores the highest rank for hydrologic control. • Wetland is rated in either the highest or second highest category for water quality AND borders a water quality limited stream as listed by DEQ. 	
MC-5	<ul style="list-style-type: none"> • Wetland scores the highest rank for water quality and hydrologic control, AND borders a water quality limited stream as listed by DEQ. 	
MC-6	<ul style="list-style-type: none"> • Wetland scores the highest rank for water quality and hydrologic control, AND borders a water quality limited stream as listed by DEQ. 	
MC-7	<ul style="list-style-type: none"> • Wetland scores the highest rank for hydrologic control. 	
MC-8	<ul style="list-style-type: none"> • Wetland scores the highest rank for water quality and hydrologic control, AND borders a water quality limited stream as listed by DEQ. 	
MC-16	<ul style="list-style-type: none"> • Wetland scores the highest rank for water quality and hydrologic control. 	
SC-1	<ul style="list-style-type: none"> • Wetland scores the highest rank for hydrologic control. 	
SC-2	<ul style="list-style-type: none"> • Wetland scores the highest rank for hydrologic control. 	Factory Outlet Store Mitigation
SC-3	<ul style="list-style-type: none"> • Wetland scores the highest rank for water quality. 	

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MC-6	<ul style="list-style-type: none"> • Wetland scores the highest rank for water quality and hydrologic control, AND borders a water quality limited stream as listed by DEQ. 	
MC-7	<ul style="list-style-type: none"> • Wetland scores the highest rank for hydrologic control. 	
MC-8	<ul style="list-style-type: none"> • Wetland scores the highest rank for water quality and hydrologic control, AND borders a water quality limited stream as listed by DEQ. 	
MC-16	<ul style="list-style-type: none"> • Wetland scores the highest rank for water quality and hydrologic control. 	
SC-1	<ul style="list-style-type: none"> • Wetland scores the highest rank for hydrologic control. 	
SC-2	<ul style="list-style-type: none"> • Wetland scores the highest rank for hydrologic control. 	Factory Outlet Store Mitigation
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EXHIBIT 2

EXHIBIT 3

SECTION 2.1 LAND USE ZONING

2.101 General Provisions

2.101.01 Establishment of Zoning

All areas within the corporate limits of the City of Woodburn are divided into distinctive land use categories which shall applied to all geographic areas of the City and recorded on the Official Zoning Map, as provided in *Section 1.103* of the *WDO*. The use of the territory within a zoning district shall be limited to the uses specified in the zoning district.

2.101.02 Zoning Districts

The City of Woodburn shall be divided into the following zoning districts:

- A. **Residential Single Family (RS).**
- B. **Retirement Community Single Family Residential (R1S).**
- C. **Medium Density Residential (RM).**
- D. **Commercial Office (CO).**
- E. **Commercial General (CG).**
- F. **Downtown Development and Conservation (DDC).**
- G. **Nodal Neighborhood Commercial (NNC)**
- H. **Industrial Park (IP).**
- I. **Light Industrial (IL).**
- J. **Public and Semi-Public (P/SP).**
- K. **Neighborhood Conservation Overlay District (NCOD).**
- L. **Riparian Corridor and Wetlands Overlay District (RCWOD)**
- M. **Southwest Industrial Reserve District (SWIR)**

N. **Nodal Districts**

1. Nodal Single Family Residential (RSN)
2. Nodal Multi-Family Residential (RMN)

2.102 **Single Family Residential (RS)**

(Changes are proposed only to Section 2.102.06)

2.102.06 Dimensional Standards

The following dimensional standards shall be the minimum requirements for all development in the RS zone. If the RS zone has a Nodal Overlay on the Comprehensive Plan Map the dimensional standards of the RSN District, **Section 2.115**, shall apply.

A. **Minimum Density**

A minimum density of 5.2 dwelling units per net buildable acre (after excluding public rights-of-way, public tracts, common open space, and land protected by the RCWOD shall be required for subdivisions.

B. **Lot Standards.**

Lots in an RS zone shall comply with the standards of **Table 2.1.1** and **Table 2.1.2**.

(Table is on the next page.)

TABLE 2.1.1 Lot Standards for Residential Uses in an RS Zone* *EXCEPT
PUD's subject to *Section 3.109*

Use Type and Lot Location	Minimum Lot Area	Minimum Lot Width	Average Lot Depth	Minimum Street Frontage
<p>A. Single Family Dwelling, Site Built; Group Home; Family Child Day Care; Manufactured Home, on a Lot; & Residential Sales Office</p> <p><u>Interior Lot</u></p> <p>1. For an interior lot. 6000 sq. ft. 50 ft. 90 ft. 40 ft.</p> <p><u>Corner Lot</u></p> <p>2. For a corner lot. 8000 sq. ft. 80 ft. 90 ft. 50 ft.</p> <p><u>Flag Lot**/*** or Cul de sac Lot</u></p> <p>3. For either a <u>flag or cul de sac lot</u>. 6000 sq. ft. 50 ft. at the front setback line. 90 ft.</p> <p>**Flag lot dimension and area standards EXCLUDE the driveway access, per Section 3.104.05 attached. ***Within a subdivision, not more than one (1) flag lot shall be located behind another lot as shown in <i>Figure 6.6</i> attached.</p>				<p><u>Flag lot</u>: The driveway access easement or strip of land per <i>Section 3.104.05</i>.</p> <p><u>Cul de sac lot</u>: 40 feet.</p>
<p>B. Duplex Dwelling on a Corner Lot</p> <p>1. For a corner lot. 10,000 sq. ft. 80 ft. 90 ft. 50 ft.</p>				

TABLE 2.1.2 Lot Standards for Non-Residential Uses in an RS Zone

In an RS zone the lot area for a non-residential use shall be adequate to contain all structures within the required setbacks. There shall be no minimum width or depth.

C. Building Height.

The maximum height of buildings and structures shall not exceed 35 feet, EXCEPT chimneys, spires, domes, flag poles and other features (EXCEPT telecommunication facilities subject to *Section 2.204.03*) not used for human habitation, which shall not exceed 70 feet.

D. Setback and Buffer Improvement Standards.

1. Front Yard Setback and Setback Abutting a Street:

a. Dimensions:

- 1) The minimum setback abutting a street, or front property line shall be 20 feet plus any Special Setback, *Section 3.103.05*, EXCEPT:
 - a) For flag lot that provides a minimum setback of 12 feet in all yards; or
 - b) When the existing pattern of development requires the application of *Section 2.102.06.C.1.a.2*).
- 2) When the lots abutting a vacant property are already developed and front the same street, the minimum setback abutting the street for the subject property shall equal the average setback of the existing, abutting residential buildings, plus or minus 5 feet, but in no case shall be less than 10 feet.

b. Off Street Parking, Maneuvering and Storage:

- 1) Off street parking and storage shall be prohibited within a required setback or any yard abutting a street EXCEPT for parking and maneuvering within a driveway leading to a garage (or carport in the case of a manufactured home) or adjacent to a wall.

2) The entrance to a garage (or carport in the case of a manufactured home) shall be set back a minimum of 20 feet from the closest edge of a shared driveway and 20 feet from a street right of way line.

c. Clear Vision Area: Fences, walls, landscaping and signs shall be subject to clear vision area standards, *Section 3.103.10*.

d. Vehicular Access: Vehicular access shall be permitted in conformance with *Section 3.104*.

2. Interior Side Yard and Interior Rear Yard Setbacks

a. Dimensions:

1) Side Yard Setback. The minimum side yard setback shall be 5 feet EXCEPT for a flag lot. The side yard setback for a flag lot may be either one of the following:

a) 12 feet, when all yard setbacks are a minimum of 12 feet; or

b) 5 feet, when the rear yard setback complies with dimensions of *Section 2.102.06.C.2.a.2)a*).

2) Rear Yard Setback.

a) The average rear yard setback (as defined in *Section 1.102*) for all lots, EXCEPT a flag lot shall be:

(i) 24 feet wide for structure up to 16 feet in height;

(ii) 30 feet wide for structure 16.1 to 28 feet in height;

(iii) 36 feet wide for structure 28.1 to 35 feet in height

with no point measuring less than 5 feet from the average dimension.

b) The minimum rear yard setback for a flag lot shall be either one of the following:

(i) A minimum 12 feet, when all yard setbacks are a minimum of 12 feet; or

- (ii) The dimensions of *Section 2.102.06.C.2.a.2)a* when the side yards are a minimum of 5 feet.
- 3) The minimum setback from a private access easement shall be 5 feet.
- b. Off Street Parking, Maneuvering and Storage:
 - 1) Off street parking, maneuvering and storage shall be permitted in the side and rear yard setback subject to applicable Special Use and Accessory Use standards, *Sections 2.202.03 and 2.201*.
 - 2) The entrance to a garage (or carport in the case of a manufactured home) shall be set back a minimum of 20 feet from the closest edge of a shared driveway and a minimum of 20 feet from a street right of way line.
- c. Clear Vision Area: Fences, walls, landscaping and signs shall be subject to clear vision area standards of *Section 3.103.10*.

2.103 Retirement Community Single Family Residential (R1S)

(No changes are proposed to the R1S District)

2.104 Medium Density Residential (RM)

(Changes are proposed only to Sections 2.104.06 and 2.104.07)

2.104.06 Dimensional Standards

The following dimensional standards shall be the minimum requirements for all development in the RM zone. If the RM zone has a Nodal Overlay on the Comprehensive Plan Map the dimensional standards of the RMN District, *Section 2.115*, shall apply.

A. Minimum Density

A minimum of 12.8 dwelling units per net acre (after excluding public rights-of-way, public tracts, common open space, and land protected by the RCW overlay district) shall be required, except for parcels less than one acre in size.

B. Lot Standards.

Lots in an RM zone shall comply with the standards for the subject use described in *Tables 2.1.1, 2.1.5 and 2.1.6*.

(Table is on next page.)

TABLE 2.1.5 Lot and Density Standards for Duplex Dwellings; Multiple Family Residential Dwelling Units and Living Units; and MDP's in an RM Zone

- A. The minimum lot area for **duplex dwellings** on an individual lot shall be 8,000 square feet with a minimum width of 80 feet and minimum depth of 90 feet.
- B. There shall be no minimum lot area or dimensions for multiple family residential dwellings units or living units in the RM zone.
- C. The number of multiple family residential dwelling units; living units; or manufactured dwelling units within a MDP on a lot shall be regulated by:
 - 1. Maximum residential density, not exceeding the following standards:
 - a. **Multiple family dwellings:** 16 dwelling units per net buildable acre.
 - b. **Assisted living facility (62331) or nursing care facility (6231):** 32 living units per net buildable acre.
 - c. **Manufactured dwelling park:** 12 dwelling units per net buildable acre.
 - 2. Compliance with the applicable open space and site design standards and guidelines of *Sections 2.104.07.C. and 2.20315.*

TABLE 2.1.6 Lot Standards for Non-Residential Uses in an RM Zone

The lot area for a non-residential use in an RM zone shall be adequate to contain all structures within the required setbacks. There shall be no minimum width or depth.

C Building Height.

The maximum height of buildings shall not exceed 35 feet, EXCEPT chimneys, spires, domes, flag poles and other features not used for human habitation (but EXCEPT telecommunication facilities), shall not exceed 70 feet.

D. Setback and Buffer Improvement Standards.

1. Front Yard Setback and Setback Abutting a Street:

- a. Dimensions: The setback abutting a street shall be a minimum of 20 feet plus any Special Setback, *Section 3.103.05*.
- b. Off Street Parking, Maneuvering and Storage:
 - 1) Off street parking and storage shall be prohibited within a required setback or any yard abutting a street EXCEPT for parking and maneuvering within a driveway leading to a garage (or carport in the case of a manufactured home) or adjacent to a wall.
 - 2) The entrance to a garage (or carport in the case of a manufactured home) shall be set back a minimum of 20 feet from the closest edge of a shared driveway and 20 feet from a street right of way line.
- c. Clear Vision Area: Fences, walls, landscaping and signs shall be subject to clear vision area standards, *Section 3.103.10*.
- d. Vehicular Access: Permitted in conformance with Woodburn Access Management Ordinance and *Section 3.104*.

2. Interior Side and Interior Rear Yard Setbacks

- a. Development in an RM zone, except for a single family dwelling and duplex dwelling, shall be subject to the setback and buffer requirements of *Table 2.1.7*.

TABLE 2.1.7 Interior Yard and Buffer Standards for RM Zones

Abutting Property	Landscaping	Wall	Interior Setback
RS or RIS zone; or Existing single family or duplex dwelling	All interior yards shall be fully landscaped subject to <i>Section 3.106.</i>	Solid brick or architectural wall with anti-graffiti surface, no less than 6 feet or greater than 7 feet in height.	24 ft. from any portion of primary building 16 ft. or less in height. 30 ft. from any portion of a primary building 16.1 ft. to 28 ft. in height. 36 ft. from any portion of a primary building 28.1 ft. to 35 ft. in height.
RM, P/SP or CO zone; or Existing medium density residential unit	All interior yards shall be fully landscaped subject to <i>Section 3.106.</i>	Wall requirements shall be determined in conjunction with the applicable Design Review process.	24 ft. from any portion of main building 16 ft. or less in height 30 ft. from any portion of a main building more than 16 ft. and less than 28 ft. in height 36 ft. from any portion of a main building more than 28 ft. and less than 35 ft. in height.
DDC, NNC or CG zone	All interior yards shall be fully landscaped subject to <i>Section 3.106.</i>	Solid brick or architectural wall with anti-graffiti surface, no less than 6 feet or greater than 7 feet in height.	10 ft.
IP, SWIR or IL zone	All interior yards shall be fully landscaped subject to <i>Section 3.106.</i>	Solid brick or architectural wall with anti-graffiti surface, no less than 6 feet or greater than 7 feet in height.	15 ft.

- b. A single family dwelling or duplex dwelling in the RM zone shall be subject to the setback and buffer improvement standards in *Section 2.102.06.C.*
- c. The building setback from a private access easement shall be a minimum of 5 feet.
- d. Off Street Parking, Maneuvering and Storage
 - 1) Off street parking and storage shall be prohibited within a required setback or any yard abutting a street EXCEPT for parking and maneuvering within a driveway leading to a garage (or carport in the case of a manufactured home) or adjacent to a wall.

- 2) The entrance to a garage (or carport in the case of a manufactured home) shall be set back a minimum of 20 feet from the closest edge of a shared driveway and 20 feet from a street right of way line.
- e. Clear Vision Area: Fences, walls, landscaping and signs shall be subject to clear vision area standards, *Section 3.103.10*.
- f. Vehicular Access: Permitted in conformance with *Section 3.104*.

2.104.07 Development Standards

All development in the RM zone shall comply with the applicable provisions of the *WDO*. The following standards specifically apply to uses in the RM zone. If the RM zone has a Nodal Overlay on the Comprehensive Plan Map the development standards of the RMN District, *Section 2.115*, shall apply.

A. Off Street Parking.

Off street parking shall be subject to the standards of *Section 2.104.06 and Section 3.105*.

B. Setbacks and Lots, Generally.

Setbacks and lots shall be subject to *Section 3.103*.

C. Architectural Design Guidelines and Open Space Standards.

1. Multiple density residential buildings shall be subject to the design standards or guidelines of *Section 3.107.05*.
2. Site-built single family and duplex dwellings and manufactured homes on lots, and all manufactured dwellings within a manufactured dwelling park (MDP), in the RM zone, EXCEPT those existing on the effective date of the *WDO* or those located in the NCOD, shall be subject to the architectural design standards of *Section 3.107.03*.
3. All single family and duplex dwellings on lots in an RM zone located within the Neighborhood Conservation Overlay District (NCOD) shall be subject to the architectural guidelines of *Section 3.107.04*.
4. All primary buildings and structures, other than those noted in *Sections 2.104.07.C.1., 2. and 3.* shall be subject to the architectural guidelines of *Section 3.107.06*

D. Signs.

Signs shall be subject to Section 3.110.

E. Accessory Uses and Structures.

By definition, prior to the construction or installation of an accessory structure, EXCEPT a fence or free-standing wall, an existing primary permitted use, building or structure shall be established on the same lot. Accessory uses and structures shall be subject to *Section 2.201* Accessory Uses and Structures.

F. Landscaping and Sidewalks.

1. The street frontage of a subject property shall be improved with either property line sidewalks and street trees or curb line sidewalks. The improvement shall be determined at the time of subdivision, PUD or design review as applicable. Sidewalks and trees shall be installed by the property owner to the standards of *Section 3.101 and 3.106*.
2. The subject property shall be landscaped to the standards of *Sections 3.106 and 3.107.03*.
3. Common refuse collection facilities shall be screened on all sides by an architectural block wall and solid gate, both with an anti-graffiti surface, a minimum of six feet and a maximum of seven feet in height.

G. Lot Coverage.

Lot coverage by the primary single family and duplex dwellings and associated accessory structures in a RM zone shall be a maximum of 40 percent for lots containing a primary building with a average height of 14 feet or less and a maximum of 35 percent for lots with a primary building with an average height of more than 14 feet.

H. Property Disposition.

All uses shall be established and conducted on lots of record, as defined by *Section 1.102* and developed to the public facility and access standards of *Sections 3.101, 3.102 and 3.104*.

1. New lots of record shall be subject to the following standards and procedures:
 - a. **Partitions, Section 3.108;**
 - b. **Subdivisions, Section 3.108;** or

- c. **Planned Unit Development *Section 3.109.***
- 2. Alteration of the property lines of existing lots of record shall be subject to the applicable following standards and procedures:
 - a. **Property Line Adjustment, *Section 5.101.07.***
 - b. **Replatting, *Section 3.108.***
 - c. **Vacation, applicable Oregon Revised Statutes.**

2.105 Commercial Office (CO)

(Changes are proposed only to Table 2.1.9)

TABLE 2.1.9 Interior Yard and Buffer Standards for Non-Residential Uses in CO Zones			
Abutting Property	Landscaping	Wall	Interior Setback
RS, RIS or RM, zone	All interior yards shall be fully landscaped subject to <i>Section 3.106</i> .	Solid brick or architectural wall with anti-graffiti surface, no less than 6 feet or greater than 7 feet in height.	10 ft.
DDC, NNC, CG, IP, SWIR, or IL zone	All interior yards shall be fully landscaped subject to <i>Section 3.106</i> .	Wall requirements shall be determined in conjunction with the applicable Design Review process.	15 ft.
P/SP or CO zone	All interior yards shall be fully landscaped subject to <i>Section 3.106</i> .	No wall required.	10 ft.

2.106 Commercial General (CG)

(Changes are proposed only to Table 2.1.11)

Abutting Property	Landscaping	Wall	Interior Setback
RS, RIS, or RM zone	There is no buffer yard landscaping requirement for an interior yard abutting a buffer wall.	Solid brick or architectural wall with anti-graffiti surface, no less than 6 feet or greater than 7 feet in height.	10 ft.
CO, CG, DDC, NNC, P/SP, IP, SWIR or IL zone	There is no buffer yard landscaping requirement for and interior yard abutting a buffer wall.	<p>Alternative A:</p> <p>Wall requirements shall be determined in conjunction with the applicable Design Review process.</p> <p>-----</p> <p>Alternative B:</p> <p>No wall required.</p>	<p>Alternative A:</p> <p>5 ft.</p> <p>-----</p> <p>Alternative B:</p> <p>Zero setback abutting a building wall.</p>

2.107 Downtown Development and Conservation (DDC)

(No changes are proposed to the DDC zone)

(The following Section 2.108 is a new proposed zoning district)

2.108 Nodal Neighborhood Commercial (NNC)

2.108.01 Purpose

The Nodal Neighborhood Commercial zone is intended to serve the routine daily needs of nearby residents and employees. This zone is intended to be accessible to pedestrians and bicyclists, as well as automobiles. It may be applied as a stand-alone neighborhood commercial zone, or as part of a master planned nodal development in accordance with *Section 2.115*.

2.108.02 Permitted Uses

The following uses, when developed under the applicable development standards of the *WDO*, are permitted in the NNC zone.

A. Residential

1. **One dwelling unit** in conjunction with a commercial use.

B. Retail Trade

1. **Bakeries.** (31181)
2. **Printing and related support activities** (323)
3. **Furniture and home furnishing stores** (442) INCLUDING:
 - a. Floor coverings and installation stores. (44221)
 - b. Window treatment and installation stores. (442291)
 - c. Used furniture stores. (45331)
4. **Electronics and appliance stores and repair** (44310) INCLUDING:
 - a. Camera shops. (44313)
 - b. Radio and TV stores. (443112)
 - c. Sewing machines stores. (443111)
5. **Building material and garden equipment dealers** (4441) LIMITED TO:
 - a. Paint, wallpaper, and interior decorating stores. (444120)
 - b. Hardware stores. (44413)
 - c. Light fixture stores. (444190)

6. **Garden supply store.** (44422)
7. **Food and beverage stores LIMITED TO:**
 - a. Delicatessen stores.
 - b. Meat markets. (44521)
 - c. Fish markets LIMITED TO sales only. (44522)
 - d. Grocery store, food market, food store. (44511)
8. **Other specialty stores (44529) LIMITED TO:**
 - a. Candy, nut, confectionery stores. (445292)
 - b. Dairy products stores LIMITED TO sales only. (44529)
9. **Health and personal care stores LIMITED TO:**
 - a. Drug stores. (44611)
 - b. Optical goods stores. (44613)
 - c. Health food stores. (446191)
 - d. Hearing aid stores. (446199)
10. **Clothing and clothing accessories (448) LIMITED TO:**
 - a. Clothing stores. (44810)
 - b. Dressmaker and tailor shops.
 - c. Furriers and fur shops. (44819)
 - d. Jewelry, watch, and clock stores. (44815 & 44831)
 - e. Shoe stores. (44823)
 - f. Luggage stores. (44832)
11. **Sporting goods stores (445111) INCLUDING:**
 - a. Bicycle shops. (445111)
 - b. Gunsmiths and repair. (45111)
12. **Hobby, toy, and game stores (45112) LIMITED TO:**
 - a. Hobby shops. (45112)
 - b. Toy stores. (45112)
13. **Sewing, needlework and piece goods stores.** (45113)
14. **Music, piano, and musical instrument stores.** (45114)

K. Arts, Entertainment & Recreation

1. **Museums and historic sites** (712) EXCEPT zoos (712130).
2. **Fitness and recreational sports** (71391)
3. **Community center.**

4. **Taxidermists.** (71151)

L. Accommodation & Food Service

1. **Hotels** (EXCEPT casino hotels) and motels. (72111)
2. **Bed and breakfast inns.** (21191)
3. **Food service and drinking places** (722) EXCEPT food contractors (7231) and mobile food service.

M. Other Services

1. **Personal care services** (8121) INCLUDING:
 - a. Barber shops. (812111)
 - b. Beauty shops. (812112)
2. **Funeral home.** (812210)
3. **Laundry, self service.** (81231)
4. **Dry cleaning, self service.** (81231)
5. **Photo finishing.** (81292)
6. **Parking lots and garages** (81293) EXCEPT extended vehicle storage. (493190)
7. **All Other Personal Services** (81299) INCLUDING bail bonding and consumer buying services.
8. **Religious, civic, professional and similar organizations.** (813)

N. Public Administration

1. **Public administration** (92) INCLUDING government offices, courts, and police and fire stations.

O. Streets and Utilities

1. **Rights of way and easements and the improvements therein** for streets, water, sanitary sewer, gas, oil , electric and communication lines and for storm water facilities and for pump stations.

2.108.03 Special Permitted Uses

The following uses, when developed under the applicable development standards of the *WDO* including the special development standards of *Section 2.203*, are permitted in the NNC zone:

- A. **Complementary residential use** subject to *Section 2.203.06*.
- B. **Craft industries** subject to *Section 2.203.07*.
- C. **Delivery services** subject to *Section 2.203.08*.
- D. **Facilities during construction** subject to *Section 2.203.10*.
- E. **Temporary outdoor marketing and special events** subject to *Section 2.203.19*.

2.108.04 Conditional Uses

The following uses may be permitted subject to obtaining conditional use approval:

- A. **Government and public utility buildings and structures** EXCEPT uses permitted in *Section 2.107.01* and telecommunications facilities subject to *Section 2.204.03*.

2.108.05 Accessory Uses

The following uses are permitted as accessory uses subject to *Sections 2.202 and 2.203*.

- A. Fence or free standing wall.

2.108.06 Dimensional Standards

The following dimensional standards shall be the minimum requirements for all development in the NNC zone.

- A. Maximum Zone and Square Footage Requirement.
 - 1. The maximum size for an NNC zone shall be 12 acres.
 - 2. NNC zones shall be served by at least one collector or arterial street.
 - 3. The maximum floor area for any single business in the NNC zone shall not exceed 60,000 square feet.

B. Lot Standards.

Lots in a NNC zone shall comply with the applicable standards of *Table 2.1.13*.

TABLE 2.1.13 Lot Standards in a NNC Zone

In a NNC zone the lot area shall be adequate to contain all structures within the required setbacks. There shall be no minimum width or depth.
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C. Building Height.

The maximum building height shall be 45 feet in the NNC zone.

D. Setback and Buffer Standards.

Setback and buffers are subject to the NNC design guidelines of *Section 3.107.07*.

2.108.07 Development Standards

All development in the NNC zone shall comply with the applicable provisions of the *WDO*. If the NNC Zone is within a Nodal Overlay on the Comprehensive Plan Map the Nodal standards shall prevail. Otherwise, where the standards of the NNC zone and the *WDO* differ, the standards of the NNC shall prevail.

A. Off Street Parking.

All parking and access standards of *Sections 3.104 and 3.105* shall apply.

B. Design Guidelines and Standards.

1. Multiple density residential buildings shall be subject to the design standards or guidelines of *Section 3.107.05*
2. All development, EXCEPT that described in *Section 2.108.07.B.1*, shall be subject to the NNC zone architectural design guidelines and standards of *Section 3.107.07*.

C. Signs.

Signs shall be subject to *Section 3.110*.

D. Landscaping.

1. Landscaping is subject to the NNC zone architectural design guidelines and standards of **Section 3.107.07**.
2. At least one-half acre of common open area shall be improved for every five acres of commercial development. The design of the common open area shall be subject to **Section 5.103.02**.

E. Property Disposition.

All uses shall be established and conducted on lots of record, as defined by **Section 1.102** and developed to the public facility and access standards of **Sections 3.101, 3.102 and 3.104**. If an NNC site is within a designated Nodal Overlay on the Comprehensive Plan Map the master planning standards of **Section 2.115** shall be met prior to creation or alteration of any lot or parcel, and prior to approval of any street vacation.

1. New lots of record shall be subject to the following standards and procedures:
 - a. **Partitions, Section 3.108;**
 - b. **Subdivisions, Section 3.108;** or
 - c. **Planned Unit Development Section 3.109.**
2. Alteration of the property lines of existing lots of record shall be subject to the applicable following standards and procedures:
 - a. **Property Line Adjustment, Section 5.101.07.**
 - b. **Replatting, Section 3.108.**
 - c. **Vacation, applicable Oregon Revised Statutes.**

2.109 Industrial Park (IP)

(Changes are proposed only to Table 2.1.16)

TABLE 2.1.16 Interior Yard and Buffer Standards for IP Zones			
Abutting Property	Landscaping	Wall	Interior Setback
RS, RIS, RM, CO, P/SP zone; or Existing residential unit	There is no buffer yard landscaping requirement for an interior yard abutting a buffer wall.	Solid brick or architectural wall with anti-graffiti surface, no less than 6 feet or greater than 9 feet in height.	30 ft.
CG, DDC, NNC, IP, SWIR or IL zone	There is no buffer yard landscaping requirement for and interior yard abutting a buffer wall.	<p>Alternative A: Wall requirements shall be determined in conjunction with the applicable Design Review process.</p> <p>-----</p> <p>Alternative B: No wall required.</p>	<p>Alternative A: 5 ft.</p> <p>-----</p> <p>Alternative B: Zero setback abutting a building wall.</p>

2.110 Light Industrial (IL)

(Changes are proposed only to Table 2.1.18)

Abutting Property	Landscaping	Wall	Interior Setback
RS, RIS, RM, CO, P/SP zone; or Existing residential unit	There is no buffer yard landscaping requirement for an interior yard abutting a buffer wall.	Solid brick or architectural wall with anti-graffiti surface, no less than 6 feet or greater than 9 feet in height.	30 ft.
CG, DDC, NNC, IP, SWIR or IL zone	There is no buffer yard landscaping requirement for and interior yard abutting a buffer wall.	<p>Alternative A:</p> <p>Wall requirements shall be determined in conjunction with the applicable Design Review process.</p> <p>-----</p> <p>Alternative B:</p> <p>No wall required.</p>	<p>Alternative A:</p> <p>5 ft.</p> <p>-----</p> <p>Alternative B:</p> <p>Zero setback abutting a building wall.</p>

2.111 Public and Semi-Public (P/SP)

(Changes are proposed only to Table 2.1.20)

Abutting Property	Landscaping	Wall	Interior Setback
<p><u>Permitted Use in a P/SP Zone Abutting:</u></p> <p>RS, R1S, RM, CO, P/SP, DDC, NNC, CG, IP, SWIR or IL zone; or</p> <p>Existing residential unit.</p>	<p>All interior yards shall be fully landscaped subject to <i>Section 3.106.</i></p>	<p>No wall required.</p>	<p>20 feet</p>
<p><u>Conditional and/or Accessory Use in a P/SP Zone Abutting:</u></p> <p>RS, R1S, RM, CO, P/SP zone; or</p> <p>Existing residential unit.</p>	<p>There is no buffer yard landscaping requirement for an interior yard abutting a buffer wall.</p>	<p>Wall requirements shall be determined in conjunction with the applicable Design Review process.</p>	<p>24 ft. from any portion of main building 16 ft. or less in height</p> <p>30 ft. from any portion of a main building more than 16 ft. and less than 28 ft. in height</p> <p>36 ft. from any portion of a main building more than 28 ft. and less than 35 ft. in height.</p>
<p><u>Conditional and/or Accessory Use in a P/SP Zone Abutting:</u></p> <p>DDC, NNC, CG, IP, SWIR or IL zone.</p>	<p>There is no buffer yard landscaping requirement for and interior yard abutting a buffer wall.</p>	<p>Wall requirements shall be determined in conjunction with the applicable Design Review process.</p>	<p>20 ft.</p>

**2.112 Neighborhood Conservation Overlay District
(NCOD)**

(No changes are proposed to the NCOD District)

2.113 Riparian Corridor and Wetlands Overlay District (RCWOD)

2.113.01 Purpose

To conserve significant riparian corridors, undeveloped floodplains and locally significant wetlands in keeping with the requirements of State Planning Goal 5 (Natural Resources) and applicable state statutes and administrative rules, and the Woodburn Comprehensive Plan to protect and enhance water quality; prevent property damage during floods and storms; limit development activity in designated riparian corridors; protect native plant species; maintain and enhance fish and wildlife habitats; and conserve scenic and recreational values.

2.113.02 Boundaries of the RCWOD

The general location of the Riparian Corridor and Wetlands Overlay District (RCWOD) is shown on the Woodburn Comprehensive Plan Map and the Woodburn Zoning Map (for areas within the City Limits). Specifically, the RCWOD includes locally significant wetlands identified on the Woodburn Wetlands Inventory Map, a riparian corridor extending upland 50 feet from the top of the bank of the main stem of Senecal Creek and Mill Creek and their tributaries, and the 100-year floodplain on properties identified as vacant or partly vacant on the 2005 Woodburn Buildable Lands Inventory. Where a significant wetland is located fully or partially within the riparian corridor, the riparian corridor shall extend 50 feet from the upland edge of the wetland.

2.113.03 Permitted Uses Within RCW Overlay District.

- A. Trails.
- B. Passive recreation uses and activities.
- C. Maintenance of existing structures, lawns and gardens.
- D. Normal maintenance and expansion of existing public facilities.
- E. Removal of invasive (non-native) plant species.

2.113.04 Development Regulations

- A. In addition to the requirements of the underlying zone, the following restrictions and exceptions shall apply within the RCWOD:
 - 1. Removal of native vegetation. The removal of vegetation from the RCWOD is prohibited EXCEPT for the following:

- a. Perimeter mowing of a wetland for fire protection purposes;
- b. Removal of non-native vegetation and replacement with native plant species;
- c. For the development of water-related or water-dependent uses, provided they are designed and constructed to minimize impact on the existing riparian vegetation;
- d. Removal of emergent in-channel vegetation that has the potential to cause flooding;
- e. Hazardous tree removal. Hazardous trees are those that pose an imminent health, safety, or welfare threat to persons or property.

2. **Building, Paving, Grading, and Fill.** Within the RCWOD, the placement of structures or impervious surfaces, including grading and the placement of fill is prohibited EXCEPT for the following:

- a. Replacement of existing structures with structures located on the original building footprint that do not disturb additional wetland or riparian corridor surface area;
- b. Streets, roads and paths that are included in the Woodburn Transportation System Plan;
- c. Water-related and water-dependent uses, including drainage facilities, water and sewer facilities, flood control projects, drainage pumps, public paths, access ways, trails, picnic areas or interpretive and educational displays and overlooks, including benches and outdoor furniture;
- d. Routine maintenance or replacement of existing public facilities projects and public emergencies, including emergency repairs to public facilities;
- e. In-channel erosion or flood control measures that have been approved by the Oregon Division of State Lands (DSL), the U.S. Army Corps of engineers or another state or federal regulatory agency, that utilize bio-engineering methods (rather than rip rap).

3. The following uses and activities are prohibited within the RCWOD:

- a. New residential, commercial, industrial, or public/semi-public construction;

- b. Expansion of existing buildings or structures;
 - c. Expansion of areas of pre-existing non-native ornamental landscaping such as lawn, gardens, etc.;
 - d. Dumping, piling, or disposal of refuse, yard debris, or other material.
- B. **Site Maintenance.** Any use, sign or structure, and the maintenance thereof, lawfully existing on the date of adoption of this ordinance, is permitted within the RCWOD. Such use, sign or structure may continue at a similar level and manner as existed on the date of the adoption of this ordinance. The maintenance and alteration of pre-existing ornamental landscaping is permitted within the RCWOD as long as no additional native vegetation is disturbed. Maintenance of lawns, planted vegetation and landscaping shall be kept to a minimum and not include the spraying of pesticides or herbicides. Vegetation shall be replanted with native species. Maintenance trimming of existing trees shall be kept at a minimum and under no circumstances can the trimming maintenance be so severe as to compromise the tree's health, longevity, and resource functions. Vegetation within utility easements shall be kept in a natural state and replanted when necessary with native plant species.
- C. When a use or activity that requires the issuance of a building permit or approval of a land use application is proposed on a parcel within, or partially within the RCWOD, the property owner shall submit the following for review by the Director:
- 1. **Site Map.** A professional quality to-scale map showing the precise location of the top-of-bank, 100-year flood elevation, jurisdictional delineation of the wetland boundary, approved by the Oregon Division of State Lands (if applicable), riparian setback, existing vegetation, site improvements existing and proposed, topography, and other relevant features;
- D. **Wetlands Notification to Oregon Division of State Lands.** The Oregon Division of State Lands shall be notified in writing of all applications to the City of Woodburn for development activities, including applications for plan authorizations, development permits, or building permits, and of development proposals by the City of Woodburn, that may affect any wetlands, creeks or waterways identified in the Local Wetlands Inventory.

2.113.05 **VariANCES**

- A. Prohibited uses or activities may only be allowed within the RCWOD with the approval of a variance, pursuant to *Section 5.103.11*.

(The following Section 2.114 is a new proposed zoning district)

2.114 Southwest Industrial Reserve (SWIR)

2.114.01 Purpose

To protect suitable industrial sites in Southwest Woodburn, near Interstate 5, for the exclusive use of targeted industries identified in the Woodburn Economic Opportunities Analysis (EOA). This broad objective is accomplished by master planning, retention of large industrial parcels, and restricting non-industrial land uses.

2.114.02 Application of the SWIR Zone

Land designated on the Comprehensive Plan Map as Southwest Industrial Reserve shall only be zoned SWIR.

2.114.03 Permitted Uses

- (A) Targeted industries and services identified in Table 2.1.21 are permitted uses in the SWIR zone, subject to compliance with applicable provisions of the WDO and this chapter.

(Table on next page.)

TABLE 2.1.21 Targeted Employers Listed By Standard Industrial Classification (SIC)

Targeted Employer	Description
Industry 27: Printing, Publishing, and Allied Industries	This industry includes establishments engaged in printing by one or more common processes, such as letterpress; lithography (including offset), gravure, or screen; and those establishments which perform services for the printing trade, such as bookbinding and platemaking. This industry also includes establishments engaged in publishing newspapers, books, and periodicals, regardless of whether or not they do their own printing. News syndicates are classified in Services, Industry 7383. Establishments primarily engaged in textile printing and finishing fabrics are classified in Industry 22, and those engaged in printing and stamping on fabric articles are classified in Industry 2396. Establishments manufacturing products that contain incidental printing, such as advertising or instructions, are classified according to the nature of the products for example, as cartons, bags, plastics film, or paper.
Industry 32: Stone, Clay, Glass, and Concrete Products	This industry includes establishments engaged in manufacturing flat glass and other glass products, cement, structural clay products, pottery, concrete and gypsum products, cut stone, abrasive and asbestos products, and other products from materials taken principally from the earth in the form of stone, clay, and sand. When separate reports are available for mines and quarries operated by manufacturing establishments classified in this industry, the mining and quarrying activities are classified in Division B, Mining. When separate reports are not available, the mining and quarrying activities, other than those of Industry 3295, are classified herein with the manufacturing operations. If separate reports are not available for crushing, grinding, and other preparation activities of Industry 3295, these establishments are classified in Division B, Mining.
Industry 34: Fabricated Metal Products, except Machinery and Transportation Equipment	This industry includes establishments engaged in fabricating ferrous and nonferrous metal products, such as metal cans, tinware, handtools, cutlery, general hardware, nonelectric heating apparatus, fabricated structural metal products, metal forgings, metal stampings, ordnance (except vehicles and guided missiles), and a variety of metal and wire products, not elsewhere classified. Certain important segments of the metal fabricating industries are classified in other industries, such as machinery in Industries 35 and 36; transportation equipment, including tanks, in Industry 37; professional scientific and controlling instruments, watches, and clocks in Industry 38; and jewelry and silverware in Industry 39. Establishments primarily engaged in producing ferrous and nonferrous metals and their alloys are classified in Industry 33.
Industry 35: Industrial and Commercial Machinery and Computer Equipment	This industry includes establishments engaged in manufacturing industrial and commercial machinery and equipment and computers. Included are the manufacture of engines and turbines; farm and garden machinery; construction, mining, and oil field machinery; elevators and conveying equipment; hoists, cranes, monorails, and industrial trucks and tractors; metalworking machinery; special industry machinery; general industrial machinery; computer and peripheral equipment and office machinery; and refrigeration and service industry machinery. Machines powered by built-in or detachable motors ordinarily are included in this industry, with the exception of electrical household appliances. Power-driven handtools are included in this industry, whether electric or otherwise driven. Establishments primarily engaged in manufacturing electrical equipment are classified in Industry 36, and those manufacturing handtools, except powered, are classified in Industry 34.

Industry 36: Electronic and Other Electrical Equipment and Components, except Computer Equipment	This industry includes establishments engaged in manufacturing machinery, apparatus, and supplies for the generation, storage, transmission, transformation, and utilization of electrical energy. Included are the manufacturing of electricity distribution equipment; electrical industrial apparatus; household appliances; electrical lighting and wiring equipment; radio and television receiving equipment; communications equipment; electronic components and accessories; and other electrical equipment and supplies. The manufacture of household appliances is included in this group, but industrial machinery and equipment powered by built-in or detachable electric motors is classified in Industry 35. Establishments primarily engaged in manufacturing instruments are classified in Industry 38.
Industry 37: Transportation Equipment	This industry includes establishments engaged in manufacturing equipment for transportation of passengers and cargo by land, air, and water. Important products produced by establishments classified in this industry include motor vehicles, aircraft, guided missiles and space vehicles, ships, boats, railroad equipment, and miscellaneous transportation equipment, such as motorcycles, bicycles, and snowmobiles. Establishments primarily engaged in manufacturing mobile homes are classified in Industry 2451. Establishments primarily engaged in manufacturing equipment used for moving materials on farms; in mines and on construction sites; in individual plants; in airports; or on other locations off the highway are classified in Industry 35.
Industry 42: Motor Freight Transportation and Warehousing	This industry includes establishments furnishing local or long-distance trucking or transfer services, or those engaged in the storage of farm products, furniture and other household goods, or commercial goods of any nature. The operation of terminal facilities for handling freight, with or without maintenance facilities, is also included. Establishments primarily engaged in the storage of natural gas are classified in Industry 4922. Field warehousing is classified in Services, Industry 7389. Establishments of the United States Postal Service are classified in Industry 43.
Industry 50: Wholesale Trade-Durable Goods	This industry includes establishments primarily engaged in the wholesale distribution of durable goods.
Industry 51: wholesale trade-non-durable goods	This industry includes establishments primarily engaged in the wholesale distribution of non-durable goods.
Industry 61: Non-Depository Credit Institutions	This industry includes establishments engaged in extending credit in the form of loans, but not engaged in deposit banking.
Industry 73: Business Services	This industry includes establishments primarily engaged in rendering services, not elsewhere classified, to business establishments on a contract or fee basis, such as advertising, credit reporting, collection of claims, mailing, reproduction, stenographic, news syndicates, computer programming, photocopying, duplicating, data processing, services to buildings, and help supply services. Establishments primarily engaged in providing engineering, accounting, research, management, and related services are classified in Industry 87. Establishments which provide specialized services closely allied to activities covered in other divisions are classified in such divisions.

Industry 80: Health Services	This industry includes establishments primarily engaged in furnishing medical, surgical, and other health services to persons. Establishments of associations or groups, such as Health Maintenance Organizations (HMOs), primarily engaged in providing medical or other health services to members are included, but those which limit their services to the provision of insurance against hospitalization or medical costs are classified in Insurance, Industry 63. Hospices are also included in this industry and are classified according to the primary service provided. Industry groups 801 through 804 includes individual practitioners, group clinics in which a group of practitioners is associated for the purpose of carrying on their profession, and clinics which provide the same services through practitioners that are employees.
Industry 87: Professional Services	This industry includes establishments primarily engaged in providing engineering, architectural, and surveying services; accounting, auditing, and bookkeeping services; research, development, and testing services; and management and public relations services.

(B) Other Services

1. **Dwelling** for caretaker or watchperson.

(C) Public Administration and Facilities

1. **Fire protection.** (922160)
2. **Government maintenance facilities and storage yards.**

(D) Streets & Utilities

1. **Rights of way and easements and the improvements therein** for streets, water, sanitary sewer, gas, oil, electric and communication lines and for storm water facilities and for pump stations.

2.114.04 Special Permitted Uses

The following uses, when developed under the applicable development standards of the *WDO* including the special development standards of *Section 2.203*, are permitted in the SWIR zone.

- A. **Agricultural practices** without livestock subject to *Section 2.203.02*.
- B. **Delivery services** subject to *Section 2.203.08*.
- C. **Facilities** during construction subject to *Section 2.203.10*.
- D. **Mobile food service** subject to *Section 2.203.17*.

2.114.05 Conditional Uses

- A. **Government and public utility buildings and structures EXCEPT uses permitted in Section 2.110.01** and telecommunications facilities subject to *Section 2.204.03*.

2.114.06 **Specific Conditional Uses**

The uses permitted by the following designation may be allowed in the SWIR zone subject to approval as a conditional use that conforms to the specific standards referenced below, the applicable provisions of the *WDO* and all other applicable conditions of approval.

- A. **Telecommunications Facilities** subject to *Section 2.204.03*.

2.114.07 **Accessory Uses**

The following uses are permitted as accessory uses subject to *Section 2.203*.

- A. **Fence or free standing wall.**

2.114.08 **Dimensional Standards**

The following dimensional standards shall be the minimum requirements for all development within the SWIR zone.

- A. Lot Standards

1. Land divisions may only be approved following approval of a master plan as required in *Section 2.114.10*.
2. Lots in a SWIR zone shall comply with the applicable standards of *Table 2.1.22*. For a land division, at least one lot shall be sized to meet each of the required lot size ranges listed in *Table 2.1.22* for each site, except smaller required lots may be combined to create larger required lots.

(Table on next page.)

Table 2.1.22 Lot Standards

Sites (by assessor tax lot number)	Buildable Acres	Required Lot Sizes (ranges shown in acres)	Conceptual Lot Sizes (in acres)	Special Standards
52W11 TL 300	88	25-50 10-25 10-25 5-10 5-10 2-5 2-5	35 15 15 8 8 4 3	Land division permitted with master plan approval
Subtotal:			88	
52W14 TL 200 52W14 TL 600	22	10-25 5-10	15 7	Land division not permitted
Subtotal:			22	
52W13 TL 1100 52W14 TL 1500 52W14 TL 1600	96	96	96	Land division not permitted Shall be developed with a use <u>with at least 300</u> employees
52W14 TL 800 52W14 TL 900 52W14 TL 1000 52W14 TL 1100	106	50-100 25-50 2-5 2-5	65 33 4 4	Land division permitted with master plan approval 50-100 acre lot shall be developed with a use <u>with at least 200</u> employees
Subtotal:			106	
52W14 TL 1200	4	2-5	4	Land division not permitted
52W23 TL 100	46	25-50 5-10 2-5	35 8 3	Land division permitted with master plan approval
Subtotal:			46	
Total SWIR	362		362	

B. Building Height.

The maximum height of buildings shall not exceed 45 feet, EXCEPT chimneys, spires, domes, flag poles and other features not used for human habitation (but EXCEPT telecommunication facilities), shall not exceed 70 feet.

C. Setback and Buffer Improvement Standards.

1. Front Yard Setback and Setback Abutting a Street:

a. Dimensions:

The minimum setback abutting a street shall be 10 feet plus any Special Setback, *Section 3.103.05*.

b. Off street parking, Maneuvering and Storage:

1) Off street parking and storage shall be prohibited within a required setback EXCEPT for parking and storage adjacent to a wall.

2) The distance between the sidewalk on a public street and a loading dock shall be sized to preclude vehicles using the dock from projecting over the sidewalk.

c. Clear Vision Area: Fences, walls, landscaping and signs shall be subject to clear vision area standards, *Section 3.103.10*.

d. Vehicular Access: Permitted in conformance *Section 3.104*.

2. Interior Side and Rear Yard Setbacks.

a. Development in a SWIR zone shall be subject to the setback and buffer requirements of *Table 2.1.23*.

(Table on next page.)

TABLE 2.1.23 Interior Yard and Buffer Standards for SWIR Zone

Abutting Property	Landscaping	Wall	Interior Setback
RS, RIS, RM, CO, P/SP zone; or Existing residential unit	There is no buffer yard landscaping requirement for an interior yard abutting a buffer wall.	Solid brick or architectural wall with anti-graffiti surface, no less than 6 feet or greater than 9 feet in height.	30 ft.
CG, DDC, NNC, IP, IL, or SWIR zone	There is no buffer yard landscaping requirement for and interior yard abutting a buffer wall.	Alternative A: Wall requirements shall be determined in conjunction with the applicable Design Review process. ----- Alternative B: No wall required.	Alternative A: 5 ft. ----- Alternative B: Zero setback abutting a building wall.

b. The building setback from a private access easement shall be a minimum of 5 feet.

c. Off Street Parking, Maneuvering and Storage:

Off street parking and storage shall be prohibited within a required setback EXCEPT for parking and storage adjacent to a wall.

d. Clear Vision Area: Fences, walls, landscaping and signs shall be subject to clear vision area standards, *Section 3.103.10*.

e. Vehicular Access: Permitted in conformance with Woodburn Access Management Ordinance and *Section 3.104*.

2.114.09 Development Standards

All development in the SWIR zone shall comply with the applicable provisions of the *WDO*. The following standards specifically apply to uses in the SWIR zone.

A. Off Street Parking.

Off street parking shall be subject to the standards of *Section 2.114.08 and Section 3.105*.

B. Setbacks and Lots, Generally.

Setbacks and lots shall be subject to *Section 3.103*.

C. Architectural Design Guidelines.

All primary buildings and structures shall be subject to the architectural guidelines of *Section 3.107.08*.

D. Signs.

Signs shall be subject to *Section 3.110*.

E. Landscaping and Sidewalks.

1. The street frontage of a subject property shall be improved with either property line sidewalks and street trees or curb line sidewalks. The improvement shall be determined at the time of subdivision, PUD or design review as applicable. Sidewalks and trees shall be installed by the property owner to the standards of *Section 3.101 and 3.106*.
2. The subject property shall be landscaped to the standards of *Section 3.106*.
3. Common refuse collection facilities shall be screened on all sides by an architectural block wall and solid gate, both with an anti-graffiti surface, a minimum of six feet and a maximum of seven feet in height.

F. Property Disposition.

All uses shall be established and conducted on lots of record, as defined by *Section 1.102* and developed to the public facility and access standards of *Sections 3.101, 3.102 and 3.104*.

1. New lots of record shall be subject to the following standards and procedures:
 - a. **Partitions, *Section 3.108*;**
 - b. **Subdivisions, *Section 3.108*; or**
 - c. **Planned Unit Development *Section 3.109*.**
2. Alteration of the property lines of existing lots of record shall be subject to the applicable following standards and procedures:
 - a. **Property Line Adjustment, *Section 5.101.07*.**
 - b. **Replatting, *Section 3.108*.**
 - c. **Vacation, applicable Oregon Revised Statutes.**

2.114.10 **Master Planning Requirement**

- A. A master development plan shall be approved by the City Council for the entire area designated SWIR on the Comprehensive Plan Map, prior to annexation of any property within the SWIR Comprehensive Plan Map designation. The master plan shall be conceptual and non-binding in nature, but may be used as a general guide for development within the SWIR.

- B. The required master plan shall show:
 - 1. The location and rights-of-way for existing and planned arterial, collector and local access streets. These streets shall provide access to all existing and proposed parcels, consistent with the Woodburn Transportation System Plan.
 - 2. The location and size of existing and planned sanitary sewer, storm water and water facilities, at adequate levels to serve existing and proposed industrial development.
 - 3. The location and area of the RCW Overlay District as it affects existing and proposed industrial parcels. Planned streets and public facilities that cannot reasonably avoid the RCW Overlay District shall be indicated.
 - 4. Conceptual land divisions, consistent with the lot sizes indicated in ***Table 2.1.22***.
 - 5. Conceptual pedestrian and bicycle connections within the SWIR zone consistent with the TSP , and pedestrian and bicycle connections to the Nodal Overlay residential, commercial and park areas.

2.114.11 **Removal of the SWIR District**

- A. Removal of the SWIR District from any area or parcel shall require the following:
 - 1. A revised Economic Opportunities Analysis and Industrial Site Suitability Analysis, consistent with the Goal 9 Rule (OAR Chapter 660, Division 9).
 - 2. A new Statewide Planning Goal 2 Exception, that explains why other land within or adjacent to the UGB that does not require an exception cannot meet the purported need.
 - 3. A Comprehensive Plan Amendment, that demonstrates compliance with all applicable Statewide Planning Goals, applicable goals and policies of the Marion County Framework Plan, and applicable goals and policies of

the Woodburn Comprehensive Plan.

4. A zoning map amendment that demonstrates consistency with the Woodburn Comprehensive Plan.

(The following Section 2.115 is a new proposed zoning district)

2.115 Nodal Overlay Districts

2.115.01 Purpose

Nodal districts are shown on the Comprehensive Plan Map and encourage neighborhood-serving commercial developments surrounded by well-designed multi-family, attached single family (row houses) and small lot single family development, with active and accessible parks. The intent is to provide a community identity and services to higher density, nodal residential development within walking distance (generally one-half mile or less) of the center. Nodal development will be designed with a pedestrian focus, with interconnected streets and pedestrian walkways, alleys serving garages located at the rear of lots, and with limited parking. To ensure that land is efficiently used within the UGB, master plans shall be required for land within Nodal districts.

2.115.02 Nodal Single Family Residential (RSN) District

A. Allowed Uses.

The following uses are allowed in the RSN District, subject to the applicable provisions of *Section 2.102* and *Section 2.115*, and other applicable provisions of the WDO:

1. Permitted, special permitted, conditional, specific conditional and accessory uses allowed in the Single Family Residential (RS) zone, *Sections 2.102.01-05*, are allowed subject to the same use provisions of *Sections 2.102.01-05*.
2. Small lot single family detached dwellings are permitted.

B. Dimensional and Development Standards. The dimensional and development standards of *Sections 2.102.06-07* shall apply, EXCEPT where specifically superseded by the provisions of *Section 2.115*. In case of conflict, the standards of *Section 2.115* supersede the standards in *Section 2.102*.

C. Land Division and Density Standards

1. An application for a subdivision shall not be approved before approval of a master plan as required in *Section 2.115.04*.
2. A minimum density of 7.9 dwelling units per net buildable acre (after excluding public rights-of-way, public tracts, common open space, and

land protected by the RCW overlay district) shall be required for residential development through the subdivision or PUD process.

3. Standard single family residential lots in the RSN Overlay District shall comply with the standards of *Table 2.1.1* in the RS zone.
4. Non-residential lots shall comply with the standards of *Table 2.1.2* in the RS zone.
5. Small lot single family residential lots in an RSN Overlay District shall comply with the standards of *Table 2.1.24*. Flag lots are not permitted.

TABLE 2.1.24 Small Lot Residential Standards in RSN				
Use Type and Location	Minimum Lot Area	Minimum Lot Width	Average Lot Depth	Minimum Street Frontage
A. Small Lot Single Family Dwelling, Site Built; & Residential Sales Office				
<u>Interior Lot</u>				
1. For an interior lot.	4000 sq. ft.	45 ft.	80 ft.	40 ft.
<u>Corner Lot</u>				
1. For a corner lot.	5000 sq. ft.	60 ft.	80 ft.	50 ft.
2. For a <u>cul de sac lot</u> .	4000 sq. ft.	45 ft.	80 ft.	30 ft.

D. Development Standards for Small Lot Single Family Residential Developments. The following development standards shall apply only to small lot single family residential developments. Standards for other developments and uses shall comply with the *RS zone*.

1. Front Yard Setback and Setback Abutting a Street: The minimum setback abutting a street, or front property line for small lot single family dwellings shall be 10 feet plus any Special Setback, *Section 3.103.05*.
 - a. Off Street Parking, Maneuvering and Storage:
 - 1) Vehicular access directly to a public street is prohibited and alley access to garages facing the alley is required. Off street parking and storage shall be prohibited within a required front yard setback or any yard abutting a street.

- 2) Clear Vision Area: Fences, walls, landscaping and signs shall be subject to clear vision area standards, **Section 3.103.10.**
2. Interior Side Yard and Interior Rear Yard Setbacks.
 - a. Dimensions:
 - 1) Side Yard Setback. The minimum side yard setback shall be 5 feet.
 - 2) Rear Yard Setback. The average rear yard setback (as defined in **Section 1.102**) shall be 20 feet.
 - b. Off Street Parking, Maneuvering and Storage:
 - 1) Off street parking, maneuvering and storage shall not be permitted in a side yard setback.
 - 2) The entrance to a garage (or carport in the case of a manufactured home) shall be set back a minimum of 20 feet from an alley or rear property line.
 - c. Clear Vision Area: Fences, walls, landscaping and signs shall be subject to clear vision area standards of **Section 3.103.10.**
3. Alley requirement. Alleys shall be required for all small lot single family residential subdivisions. Alleys shall be dedicated and paved to a minimum width of 20 feet. No parking shall be allowed within an alley right-of-way.
4. Architectural Design Standards. In addition to meeting the architectural design standards of **Section 3.107.03**, small lot single family dwellings shall meet the following design standards. In cases of conflict with other sections of the WDO, these standards prevail.
 - a. Two-car garages shall be required, facing directly on to an alley. Vehicular access to the garage from the street shall be prohibited.
 - b. At least 25% of the ground level façade facing the street shall be windows.
 - c. Covered front porches of at least 60 square feet shall be required with no dimension of less than 6 feet.

- d. The maximum permitted front porch setback shall be 15 feet.
 - e. Direct pedestrian access from the street to the front porch shall be provided.
5. A front yard landscaping and maintenance plan shall be required for all small lot single family subdivisions prior to preliminary plat approval.

2.115.03 Nodal Medium Density Residential (RMN) District

A. Allowed Uses.

The following uses are allowed in the RMN District, subject to the applicable provisions of *Section 2.104* and *Section 2.115*, and other applicable provisions of the WDO:

- 1. Permitted, special permitted, conditional, specific conditional and accessory uses allowed in the Medium Density Residential (RM) zone, *Sections 2.104.01-05*, are allowed subject to the same use provisions of *Sections 2.104.01-05*.
- 2. Attached single family dwellings (row houses) are permitted.
- 3. Detached single family and manufactured dwellings on individual lots are permitted subject to the development standards for small lot single family dwellings in *Section 2.115.02*.

B. Dimensional and Development Standards. The dimensional and development standards of *Sections 2.104.06-07* shall apply, EXCEPT where specifically superseded by the provisions of *Section 2.115*. In case of conflict, the standards of *Section 2.115* supersede the standards in *Section 2.104*.

C. Land Division and Density Standards

- 1. An application for a subdivision shall not be approved before approval of a master plan as required in *Section 2.115.04*.
- 2. A minimum density of 19 multi-family, or 10 duplex or rowhouse dwelling units per net buildable acre (after excluding public rights-of-way, public tracts, common open space, and land protected by the RCW overlay district) shall be required for residential development through the subdivision or PUD process.
- 3. Single family and manufactured dwelling residential lots in the RMN District shall comply with the provisions for small lot single family

dwellings in *Section 2.115.02*.

4. Non-residential lots shall comply with the standards of *Table 2.1.6* in the RM zone.
5. Multi-family and attached single family (row houses) residential lots in an RMN District shall comply with the standards of *Table 2.1.25*. Flag lots are not permitted.

Use Type and Location	Minimum Area / Maximum Density	Minimum Lot Width	Average Lot Depth	Minimum Street Frontage
A. Row Houses with Alley Access				
1. For an interior lot.	3,000 sq. ft.	28 ft.	80 ft.	28 ft.
2. For a corner lot or cul de sac lot.	3600 sq. ft.	40 ft.	80 ft.	40 ft.
B. Duplex dwellings on an individual lot				
	8,000 sq. ft.	80 ft.	90 ft.	80 ft.
C. Multifamily Dwellings				
1. Minimum Development Area	2 Acres	200 ft.	200 ft.	200 ft.
2. Maximum residential density	24 units /net acre			
D. Assisted living facility (62331) or nursing care facility (6231)				
1. Minimum Development Area	2 acres	200 ft.	200 ft.	200 ft.
2. Maximum residential density	32 units / net acre			

B. Building Height.

The maximum height of buildings and structures within the RMN District shall not exceed 45 feet, EXCEPT chimneys, spires, domes, flag poles and other features (EXCEPT telecommunication facilities subject to *Section 2.204.03*) not used for human habitation, which shall not exceed 70 feet.

C. Multi-Family and Duplex Residential Development Standards.

1. The setback abutting a street and the front yard setback for multi-family and duplex residential uses shall be a minimum of 10 feet and a maximum of 15 feet, EXCEPT where:
 - a. Abutting a commercial or industrial zone, or an arterial or collector

street, in which case the minimum street or front yard setback shall be 20 feet.

2. Rear and side yard setbacks shall be a minimum of 10 feet, EXCEPT where:
 - a. Abutting an RS or R1S zone , in which case, the minimum setback shall be 10 feet for the first floor, and 5 additional feet for each additional story.
3. EXCEPT for duplex lots, parking lots shall:
 - a. Be located behind or to the side of buildings.
 - b. Not occupy more than 50% of any street frontage.
 - c. Not be located within 20 feet of a public street or within 20 feet of an RS, R1S or RM zoned property, unless a minimum 6-foot high architectural wall is provided between the parking lot and the adjacent RS, R1S or RM zoned property, in which case, the parking lot shall not be located within 5 feet of the adjacent property.

D. **Attached Single Family Dwelling (Row Houses) Development Standards.**

1. Front Yard Setback and Setback Abutting a Street:

The minimum setback abutting a street, or front property line for attached single family development shall be 10 feet plus any Special Setback, **Section 3.103.05**, EXCEPT the minimum setback abutting an arterial street shall be 20 feet.

a. Off Street Parking, Maneuvering and Storage:

- 1) Vehicular access directly to a public street is prohibited and alley access to garages facing the alley is required. Off street parking and storage shall be prohibited within a required front yard setback or any yard abutting a street.
- 2) Clear Vision Area: Buildings, fences, walls, landscaping and signs shall be subject to clear vision area standards, **Section 3.103.10**.

2. Interior Side Yard and Interior Rear Yard Setbacks.

- a. Dimensions:
 - 1) Side Yard Setback. The minimum side yard setback shall be 0 feet, EXCEPT for corner lots, in which case, the minimum street side yard setback shall be 15 feet.
 - 2) Rear Yard Setback. The average rear yard setback (as defined in *Section 1.102*) shall be 20 feet.
 - b. Off Street Parking, Maneuvering and Storage:
 - 1) Off street parking, maneuvering and storage shall not be permitted in a side yard setback.
 - 2) The entrance to a garage (or carport in the case of a manufactured home) shall be set back a minimum of 20 feet from an alley or rear property line.
 - c. Clear Vision Area: Fences, walls, landscaping and signs shall be subject to clear vision area standards of *Section 3.103.10*.
3. Alley requirement. Alleys shall be required for all attached single family dwelling developments. Alleys shall be dedicated and paved to a minimum width of 20 feet. No parking shall be allowed within an alley right-of-way.
 4. Architectural Design Standards. In addition to meeting the architectural design standards of *Section 3.107.03*, attached single family dwellings shall meet the following design standards. In cases of conflict with other sections of the WDO, these standards prevail.
 - a. Two-car garages shall be required, facing directly on to an alley. Vehicular access to the garage from the street shall be prohibited.
 - b. At least 25% of the ground level façade facing the street shall be windows.
 - c. Covered front porches of at least 60 square feet shall be required with no dimension of less than 6 feet.
 - d. The maximum permitted front porch setback shall be 15 feet.
 - d. Direct pedestrian access from the street to the front porch shall be provided.

5. A front yard landscaping and maintenance plan shall be required for all attached single-family subdivisions prior to preliminary plat approval.

2.115.04 **Master Planning Requirement**

- A. A master development plan shall be approved by the City Council for the entire area designated as Nodal Overlay on the Comprehensive Plan Map, prior to annexation of any property within the Nodal Overlay Comprehensive Plan Map designation. The master plan shall be conceptual and non-binding in nature, but may be used as a general guide for development within the Nodal Overlay Districts.

- B. The required master plan shall show:
 - 1. The location and rights-of-way for existing and planned arterial, collector and local access streets. These streets shall provide access to all existing and proposed parcels, consistent with the Woodburn Transportation System Plan.

 - 2. The location and size of existing and planned sanitary sewer, storm water and water facilities, at adequate levels to serve existing and proposed development.

 - 3. The location and area of the RCW Overlay District as it affects existing and proposed nodal development parcels. Planned streets and public facilities that cannot reasonably avoid the RCW Overlay District shall be indicated.

 - 4. A conceptual development plan for the Nodal Neighborhood Commercial center, neighboring multi-family areas, and potential parks, including planned pedestrian and bicycle connections within the Nodal Overlay District as shown on the TSP, and pedestrian and bicycle connections to Southwest Industrial Reserve areas.

 - 5. A conceptual plan for local streets and alleys, and lotting patterns, showing how small lot and attached single family development could occur consistent with applicable nodal design standards.

2.115.05 Removal of a Nodal Overlay District

A. Removal of a Nodal Overlay District from any area or parcel shall require the following:

1. A revised transportation, housing and commercial land needs analysis, consistent with the Goal 9, 10 and 12 Rules (OAR Chapter 660, Divisions 8, 9 and 12).
2. A Comprehensive Plan Amendment, that demonstrates compliance with all applicable Statewide Planning Goals, applicable goals and policies of the Marion County Framework Plan, and applicable goals and policies of the Woodburn Comprehensive Plan.
3. A zoning map amendment that demonstrates consistency with the Woodburn Comprehensive Plan.

(The following Section 2.116 is a new proposed zoning district)

2.116 Interchange Management Area (IMA) Overlay District

2.116.01 Purpose

The purpose of this overlay district is to preserve the long-term capacity of Woodburn's I-5 Interchange with Highway 214, in coordination with the Oregon Department of Transportation (ODOT).

Preserving the capacity of this interchange is an essential element of the City's economic development strategy, because continued access to I-5 is necessary to attract and maintain basic employment within the Woodburn Urban Growth Boundary (UGB). *Section 2.116* complements the provisions of the Southwest Industrial Reserve (SWIR) District by ensuring that industrial land is retained for targeted basic employment called for in the Woodburn Economic Opportunities Analysis (EOA) and the Economic Development Strategy (EDS). *Section 2.116* also ensures that needed industrial, commercial and residential land within the IMA Overlay District is protected from commercial encroachment.

These goals are met by establishing trip generation budgets as called for in Transportation Policy H-7.1 of the Woodburn Comprehensive Plan. The parcel budgets are intended to be high enough to accommodate peak hour trips anticipated by the 2005 Woodburn Comprehensive Plan (WCP) and Transportation Systems Plan (TSP), but low enough to restrict unplanned vehicle trips that could adversely affect the interchange.

2.116.02 Boundary of the IMA Overlay District

The boundary of the IMA Overlay District is shown on the Woodburn Comprehensive Plan Map and Zoning Map.

2.116.03 Applicability

The provisions of *Section 2.116* shall apply to all Type II – V land use applications that propose to allow development that will generate more than 20 peak hour vehicle trips (based on the latest Institute of Transportation Engineers Trip Generation Manual) on parcels identified in *Table 2.116.1*. The provisions of *Section 2.116.07* shall apply to all properties within the boundary of the IMA.

2.116.04 **Vehicle Trip Budgets**

Section 2.116 establishes a total peak hour trip generation budget for planned employment (commercial and industrial) land uses within the Interchange Management Area – defined as the IMA Trip Budget, and a trip budget for each vacant commercial or industrial parcel – defined as the parcel budget.

A. The IMA District Trip Budget

The IMA Trip Budget for vacant commercial and industrial parcels identified in *Table 2.116.1* is 2,500 peak hour vehicle trips (An estimated 1,500 additional peak hour residential trips are planned within the IMA District). The IMA Trip Budget will be allocated to parcels identified in *Table 2.116.1* on a first developed – first served basis.

B. 2005 (Initial) Vehicle Trip Budget by Parcel

The parcel budget for each vacant commercial or industrial parcel within the IMA Overlay District is shown on *Table 2.116.1*. Parcel budgets are based on 11 peak hour trips per developed industrial acre, and 33 peak hour trips per developed commercial acre.

1. The parcel budget for each parcel will be reduced in proportion to actual peak hour vehicle trips generated by new development on any portion of the parcel.
2. The City *may* allow development that exceeds the parcel budget for any parcel in accordance with *Section 2.116.08.B*.

(Table on next page.)

Table 2.116.1. Vehicle Trip Budget by Parcel (Parcel Budget)

Assessor Map and Tax Lot Number	Applicable Comprehensive Plan Designation	Vacant Buildable Acres	Maximum Peak Hour Vehicle Trips
052W11 00300	SWIR	88	968
052W13 01100 052W14 01500 052W14 01600	SWIR	96	1056
052W14 00200 052W14 00600	SWIR	22	242
052W14 00800 052W14 00900 052W14 01000 052W14 01100	SWIR	109	1199
052W14 01200	SWIR	4	44
052W23 00100	SWIR	46	506
052W12AC 04301	Commercial	2	66
052W12C 00604	Commercial	1	33
052W12C 00605	Commercial	3	99
052W12C 02100	Commercial	7	231
052W12C 02200	Commercial	6	198
052W12C 02300	Commercial	7	231
052W12C 02400	Commercial	2	66
052W13 01600	Commercial	5	165
052W14 02000	Commercial	8	264
052W14 02100	Commercial	5	165
052W14 02300	Commercial	6	198
052W13BD 00900 (westerly portion) 052W13BD 01500 052W13BD 01600 052W13BD 01700 052W13BD 01800	Nodal Commercial	9	297

2.116.05

Administration

Section 2.116 delineates responsibilities of the City and ODOT to monitor and evaluate vehicle trip generation impacts on the I-5 interchange from development approved under this section.

A. Traffic Impact Analysis (TIA)

A TIA is required for all land use applications subject to the provisions of *Section 2.116*. The standards for preparing a TIA are found in Exhibit Q, Transportation Impact Analysis Requirements. The TIA must meet City and ODOT administrative rule (OAR Chapter 734, Division 51) requirements and shall include an evaluation and recommendation of feasible transportation demand management (TDM) measures that will minimize peak hour vehicle trips generated by the proposed development.

B. ODOT Coordination

For a land use application subject to the provisions of *Section 2.116*:

1. The City shall not deem the land use application complete unless it includes a TIA prepared in accordance with Exhibit Q, TIA Requirements.
2. The City shall provide written notification to ODOT when the application is deemed complete. This notice shall include an invitation to ODOT to participate in the City's facilities review meeting.
3. ODOT shall have at least 20 days to provide written comments to the City, measured from the date the completion notice was mailed. If ODOT does not provide written comments during this 20-day period, the City's decision may be issued without consideration of ODOT comments.

C. City Monitoring Responsibilities

The details of City and ODOT monitoring and coordination responsibilities are found in the Woodburn – ODOT Intergovernmental Agreement (IGA).

1. The City shall be responsible for maintaining a current ledger documenting the cumulative peak hour trip generation impact from development approved under *Section 2.116*, compared with the IMA Trip Budget.
2. The City may adjust the ledger based on actual development and employment data, subject to review and concurrence by ODOT.

3. The City will provide written notification to ODOT when land use applications approved under *Section 2.116*, combined with approved building permits, result in traffic generation estimates that exceed 33% and 67% of the IMA Trip Budget.

D. Vesting and Expiration of Vehicle Trip Allocations

This section recognizes that vehicle trip allocations may become scarce towards the end of the planning period, as the I-5 Interchange nears capacity. The following rules apply to allocations of vehicle trips against the IMA Trip Budget:

1. Vehicle trip allocations are vested at the time of design review approval.
2. Vehicle trips shall not be allocated based solely on approval of a comprehensive plan amendment or zone change, unless consolidated with a subdivision or design review application.
3. Vesting of vehicle trip allocations shall expire at the same time as the development decision expires, in accordance with *Section 4.102.03-04*.

2.116.06 **Allowed Uses**

- A. Uses allowed in the underlying zoning district are allowed subject to other applicable provisions of the WDO and *Section 2.116*.

2.116.07 **Comprehensive Plan and Zoning Map Amendments**

Section 2.116.07 applies to all Comprehensive Plan Map amendments within the IMA Overlay District. This section does not apply to Zoning Map amendments that result in conformance with the applicable Comprehensive Plan Map designation, such as Zoning Map amendments that occur when land is annexed to the City.

- A. Transportation Planning Rule Requirements.

Applications for Comprehensive Plan Map amendments, and for Zoning Map amendments shall determine whether the proposed change will significantly affect a collector or arterial transportation facility, and must meet the requirements of Oregon Administrative Rule (OAR) 660-012-0060 and WDO *Section 5.104.02-04*.

- B. Limitations on Comprehensive Plan Amendments.

To ensure that the remaining capacity of the I-5 Interchange is reserved for targeted employment opportunities identified in Chapter 4 of the Economic Opportunities Analysis (EOA) and needed housing, this section imposes the

following prohibitions on Comprehensive Plan Map amendments within the IMA Overlay District:

1. Comprehensive Plan Map amendments that will increase the net Commercial land area within the IMA Overlay District shall be prohibited.
2. Comprehensive Plan Map amendments that allow land uses that will generate traffic in excess of the IMA Trip Budget shall be prohibited.

2.116.08 **Interchange Capacity Preservation Standards**

Land use applications subject to the provisions of *Section 2.116* shall comply with the following:

- A. Cumulative Impact Standard. Peak hour vehicle trips generated by the proposed development shall not, in combination with other approved developments subject to *Section 2.116*, exceed the IMA Trip Budget of 2,500.
- B. Parcel-Specific Impact Standard. Peak hour vehicle trips generated by the proposed development shall not exceed the maximum peak hour vehicle trips specified in *Table 2.116.1* for the subject parcel, EXCEPT:
 1. Development of uses listed in *Table 2.1.21 (Section 2.114.03, SWIR Zone Permitted Uses)* may be allowed to exceed the maximum, if the development will contribute substantially to the economic objectives found in Chapter 2 of the Woodburn Economic Development Strategy (EDS).
 2. Residential development on a parcel zoned Commercial shall be allowed to exceed the maximum.
- C. Transportation demand management (TDM) measures shall be required to minimize peak hour vehicle trips and shall be subject to annual review by the City.

2.202 Accessory Uses and Structures: Non-Residential Zones and Uses

2.202.01 Applicability

The following standards are applicable to structures accessory to non-residential uses in the CO, DDC, NNC, CG, IP, IL, SWIR and P/SP zones.

2.202.02 Structures EXCLUDING Fences and Freestanding Walls

A. Location and Height in All Yards.

The setback and maximum height for an accessory structure, except for fences and freestanding walls, shall be the same as for a primary use.

B. Lot Coverage.

Accessory structures shall be included with the primary structures in computing lot coverage.

2.202.03 Fences and Freestanding Walls

A. Safety Review Prior to Fence Installation.

Plans for installation of all fences and freestanding walls shall be reviewed as a *Type I* application prior to installation to assure compliance with safety standards of the state building code and the *WDO*.

B. Location and Height in Yards Adjacent to a Street.

1. The location and height shall comply with the clear vision area standards, *Section 3.103.10*.
2. The location and height shall not exceed a height of 42 inches above the curb elevation, when located on the front lot line abutting the street. For streets without curbs the maximum height shall be measured relative to the elevation of the center line of the improved street.
3. The location and height shall not exceed a height of 48 inches above the curb elevation, when located on the side lot line abutting the street. For streets without curbs the maximum height shall be measured relative to the elevation of the center line of the improved street.

4. The height relative to the ground elevation under the fence, may increase one foot in height for each 6 feet of setback from the lot line, not to exceed a maximum height of seven feet.

C. Height in Yards Not Adjacent to a Street.

The maximum height in yards not adjacent to a street shall be seven feet.

D. Construction Materials Prohibited.

Fences and freestanding walls constructed of materials that could cause bodily harm, including, but not limited to, those conveying electric current, barbed or razor wire, spikes and broken glass, shall be prohibited, EXCEPT that in an industrial zone fences and freestanding walls may incorporate barbed wire provided the wire is located at least 150 feet from a public street.

3.101 Street Standards

(Changes are proposed only to Sections 3.101.02.G and 3.101.03)

3.101.02 General Provisions

G. Block Standards.

Block length shall not be less than 200 feet and not more than 600 feet, EXCEPT where the dimensions and alignment of existing blocks and streets adjacent to or in the vicinity of a proposed subdivision, or consideration of access management policies on arterials warrant other dimensions. The maximum block length shall not exceed 1200 feet.

3.101.03 Right of Way and Improvement Standards

- A. The street right of way and improvement cross-sectional standards required for development are depicted in Figure 7-2 and Table 7-1 of the Woodburn Transportation System Plan. These standards are based on the functional classification of each street as shown in Figure 7-1 of the Woodburn Transportation System Plan. The street right-of-way and improvement standards minimize the amount of pavement and right-of-way required for each street classification consistent with the operational needs of each facility, including requirements for pedestrians, bicycles, and public facilities.
- B. The following additional standards for Local Residential Streets:
1. Local Residential Street with Parking One Side:
 - a. Required common, onsite parking over and above the parking requirements under other provisions of the *WDO*: One (1) space per dwelling unit, located no further than 250 feet from the subject lot.
 2. Local Residential without Parking:
 - a. Required common, onsite parking over and above the parking requirements under other provisions of the *WDO*: Two (2) spaces per dwelling unit lot, located no further than 250 feet from the subject lot.

3.103 Setback, Open Space and Lot Standards, Generally

(Changes are proposed only to Section 3.103.05)

3.103.05 Special Street Setbacks

A. Purpose.

The special setbacks in this *Section* are based upon the functional classification of streets and roads described in the Woodburn Transportation System Plan (WTSP). The purpose of these special setbacks is to provide for adequate air movement, solar access, visibility, aesthetics and compliance with the development standards of the *WDO* when a major street is improved.

B. Setback Requirements.

Required setbacks adjacent to a street shall be in addition to the special setbacks required in this Section. The special setback distances shall be measured at right angles to the center line of the original street right of way.

C. Special Provisions.

Buildings, structures and paved surfaces shall not be located within the special setbacks EXCEPT as specifically provided for in the *WDO*. Any portion of a building or structure lawfully established within a special street setback prior to date of *WDO* shall be considered a nonconforming structure.

D. Special Setback Standards.

Special setback standards by street classification are established in *Table 3.1.1*. The special setback standards shall be applied to streets within the City of Woodburn as functionally classified in the Woodburn Transportation System Plan.

TABLE 3.1.1 Special Setback Standards by Street Classification	
WTSP Functional Classification	Special Setback from Center Line
Major Arterial	50 feet
Minor Arterial	37 feet
Service Collector	36 feet
Access Street/Commercial Street	33 feet

3.105 Off Street Parking and Loading

(Changes are proposed only to Section 3.105.02.H)

H. On-site Vehicle Parking and Loading Area Improvement Requirements.

1. **Surfacing.** All vehicle parking and loading areas shall be paved with asphalt, concrete or other hard surfacing approved by the Public Works Director.
2. **Drainage.** All vehicle parking and loading areas shall be graded and provide storm drainage facilities approved by the Public Works Director.
3. **Bumper Guards and Wheel Barriers.** All vehicle parking spaces, EXCEPT those for single family and duplex dwellings, shall be constructed with bumper guards or wheel barriers that prevent vehicles from damaging structures or projecting over walkways, access ways or abutting property or rights of way.
4. **Size of Vehicular Parking Spaces and Maneuvering Areas within Off Street Parking Areas.**
 - a. Off street vehicle parking spaces and maneuvering areas, EXCEPT those for single family and duplex dwellings and those for disabled persons, within off street parking areas shall be designed in compliance with **Table 3.1.4**. Three or more off street parking spaces provided subject to **Table 3.1.4** shall be designed so that no backing or maneuvering within a public street right of way is required.
 - b. Off street parking for single family and duplex dwellings shall be governed by **Section 3.104.05.B.2 and C.2 and Table 3.1.2.1**.
 - c. Off street parking for disabled persons shall be designed to the standards of the state Building Code and applicable federal standards.
5. **Directional Marking.** EXCEPT for vehicle parking areas for single family and duplex dwellings, off street parking and maneuvering areas shall have directional markings and signs to control vehicle movement.
6. **Space Marking.** EXCEPT for vehicle parking areas for single family and duplex dwellings, off street parking spaces shall be delineated by double

parallel lines on each side of a space. The total width of the lines shall delineate a separation of 2 feet.

7. Access. Access to vehicle parking areas shall be in compliance with the standards of **Section 3.104.**
8. Outdoor Lighting. EXCEPT for vehicle parking areas for single family and duplex dwellings, all outdoor lighting shall be designed so as not to shine or reflect into any adjacent residentially zoned or used property, and shall not cast a glare onto moving vehicles on any public street.
9. Landscaping. EXCEPT for vehicle parking spaces for single family and duplex dwellings, all parking areas shall be landscaped to the standards of **Section 3.106.**
10. On-site Bicycle Parking Requirements. All uses required to provide 10 or more off street parking spaces and residential structures with four or more units shall provide a bicycle rack within 50 feet of the main entrance. The number of required rack spaces shall be one plus one per ten vehicle parking spaces, with a maximum of 20 rack spaces.

3.106 Landscaping Standards

(Changes are proposed only to Sections 3.106.03 and 3.106.04)

3.106.03 Landscaping Standards

A. Streetscape.

1. Street Trees. Within the public street right of way abutting a development, or within an alley right of way in the DDC zone, street trees shall be planted to City standards prior to final occupancy.
 - a. Acceptable Types of Trees. See *Section 6.103* for a description of acceptable and unacceptable trees for this purpose, classified by size and species.
 - b. Tree Density. Trees shall be planted at the following intervals within the right of way, subject to Clear Vision Area standards, *Section 3.103.10 and Section 6.103*:
 - 1) Four (4) small trees per 100 feet of street frontage;
 - 2) Three (3) medium trees per 100 feet of street frontage; or
 - 3) Two (2) large trees per 100 feet of street frontage.
2. Front Yard and Yard Abutting a Street.
 - a. Landscaping Density for non-residential uses in the RS and R1S zone and all uses in the RM, P/SP, IL, IP, and SWIR zones. All front yards and yards abutting a street shall be landscaped at a density of one (1) plant unit (PU) per 20 sq. ft.
 - b. Landscaping Design and Density in CO and CG zones.
 - 1) All yards abutting a street, including off street parking and circulation areas shall be landscaped at a density of one (1) plant unit (PU) per 20 sq. ft.
 - 2) All parking areas abutting a street shall provide a 42-inch vertical visual screen from the abutting street grade. Acceptable design techniques to provide the screening include plant materials; berms; freestanding, architectural walls with an anti-graffiti finish, depressed grade for the parking area. All screening shall comply with the clear

B. Buffer Yards.

All buffer yards shall be landscaped at the rate of one (1) plant unit (PU) per 20 sq. ft. EXCEPT for interior buffer yards abutting a wall which are paved and which may be used for parking or site access and vehicular circulation.

C. Off Street Parking Areas.

1. All unpaved land within off street parking areas, and within 20 feet of the paved edge of off street parking and/or circulation improvements, shall be landscaped in the following proportions:
 - a. RM, CO and CG zones: Landscaped area(s) equivalent to 20% of the paved surface area for off street parking and circulation.
 - b. IP, IL, and SWIR zones: Landscaped area(s) equivalent to 10% of the paved surface area for off street parking and circulation.
2. The density of landscaping required in and adjacent to off street parking and circulation facilities, EXCLUDING required trees, shall be one (1) plant unit per 20 square feet.
3. Trees, *Section 6.103*, shall be planted within and abutting off street parking facilities in a pattern that is in proportion to the distribution of the parking spaces, at the following densities:
 - a. 1 small tree per 5 parking spaces;
 - b. 1 medium tree per 10 parking spaces; or
 - c. 1 large tree per 14 parking spaces.
4. Multi-Purpose Landscaping. Trees and other required landscaping located on private property within a required setback abutting a street or an interior lot line that is within 20 feet of the paved surface of off street parking and circulation facilities, may also be counted in calculating required landscaping for off street parking and circulation areas.

D. Common Areas.

All common areas, EXCEPT those approved as natural common areas in a PUD, shall be landscaped with at least three (3) plant units per 50 square feet.

E. Yards.

The entire yard area of a property, EXCLUDING areas subject to more intensive landscaping requirements and all yards of residential uses in a RS or R1S zone, shall be landscaped to a standard of at least one (1) plant unit (PU) per 50 square feet prior to final occupancy.

3.106.04 Conservation of Significant Trees

A. Applicability.

The provisions of this *Section* apply to the removal of any significant tree and the replacement requirements for significant tree removal. A “significant tree” is any existing, healthy tree 24 inches or more in diameter, measured 12 inches above ground level.

B. Limitations on Tree Removal.

A City tree removal permit shall be required to remove any tree, subject to the following EXCEPTIONS:

1. Three or fewer significant trees may be removed from a lot zoned RS, R1S or P/SP that is less than 0.5 acres in area within any calendar year without a permit;
2. One significant tree may be removed from a lot:
 - a. Zoned RS, R1S or P/SP which is greater the 0.5 acres; or
 - b. Zoned other than RS, R1S or P/SPwithin any calendar year without a permit.
3. A diseased or dangerous tree may be removed without a permit in an emergency.

C. Tree Replacement Requirement.

The issuance of a significant tree removal permit requires the property owner to replace each tree removed with two new trees on the same property. Each new tree shall be at least 2 inches in caliper. A tree required by the development standards of the underlying zone, *Section 3.1.*, or as a condition of permit approval shall qualify as a replacement tree.

3.107 Architectural Design Guidelines and Standards

(Changes are proposed only to Sections 3.107.07 and 3.107.08)

3.107.07 Design Guidelines and Standards for the DDC and NNC Zones

A. Applicability and Procedure.

The following guidelines and standards shall be applicable to the Downtown Development and Conservation (DDC) and Nodal Neighborhood Commercial (NNC) zones. The Woodburn Downtown Association (WDA) shall be notified as an interested party in conjunction with design review within the DDC zone.

B. Design Guidelines for New Development.

1. Site Design Guidelines. All new development *should* comply with the following site design guidelines.
 - a. Building placement. Buildings *should* occupy a minimum of 50 percent of all street frontages along public streets. Buildings should be located at public street intersections.
 - b. Building setback. The minimum setback from a public street right of way may be 0 feet, the maximum building setback *should* be 10 feet.
 - c. Front setback and setback abutting a street design. Landscaping, an arcade, or a hard-surfaced expansion of the pedestrian path *should* be provided between a structure and a public street.
 - 1) Setbacks abutting a street *should* be 5 feet in depth or equal to the building setback, whichever is greater. The setback *should* be landscaped at a planting density of five (5) planting units per 20 square feet to the street tree standards of *Table 3.1.5*.
 - 2) Setbacks abutting and alleyway *should* be landscaped to the street tree standards of *Section 3.106.03.A.1*.
 - 3) Hard-surfaced areas *should* be constructed with scored concrete or modular paving material. Benches and other street furnishings *shall* be encouraged.

- d. Walkway connection to building entrances. A walkway connection *should* connect a building entrance and a public street. This walkway *should* be at least six (6) feet wide and be paved with scored concrete or modular paving materials. Building entrances at corners near a public street intersection *shall* be encouraged.
- e. Parking location and landscape design. Parking for buildings or phases adjacent to public street rights of way *should* be located to the side or rear of newly constructed buildings. When located abutting a street, off street parking *should* be limited to 50 percent of the street frontage. Setbacks abutting a street *should* be 5 feet in depth or equal to the building setback, whichever is greater. The setback *should* be landscaped at a planting density of five (5) planting units per 20 square feet to the street tree standards of *Section 3.106.03.A.1*.
- f. Interior side and rear yards setbacks *should* be landscaped to the street tree standards of *Section 3.106.03.A.1.b*.
- g. Any open area not used for building space *should* be landscaped in compliance with *WDO* standards and guidelines.

2. New Building Architectural Design Guidelines and Standards.

- a. Applicability.
 - 1) All non-residential buildings shall comply with the following design guidelines (read as “*should*”).
 - 2) At the time of application, the applicant shall choose whether the review of new residential buildings shall be conducted as a Type I review following the procedures of *Section 5.101.01* or as a Type II or III review following the procedures of *Section 5.102.02* or *5.103.02*, depending on floor area.
 - a) For a Type I review, the criteria of *Section 3.107.04.B* shall be read as “*shall*” and shall be applied as standards.
 - b) For a Type II or III review, the criteria *Section 3.107.04.B* shall be read as “*should*” and shall be applied as guidelines.

b. Architectural Design Guidelines and Standards.

- 1) Ground floor window. All street-facing building elevations that are set back 10 feet or less from a public street *should* include a minimum of 50 percent of the ground floor wall area with windows, display areas or doorway openings. The ground floor wall area *shall* be measured from three feet above grade to nine feet above grade the entire width of the street-facing elevation. The ground floor window requirement *should* be met within the ground floor wall area and for glass doorway openings to the ground level. Up to 50 percent of the required ground floor window area on a particular street-facing building elevation *may* be met on an adjoining building elevation when the adjoining elevation is also street-facing and setback 10 feet or less.

- 2) Building facades. No building facade *should/shall* extend for more than 300 feet without a pedestrian connection between or through the building. Facades that face a public street *should/shall* extend no more than 50 feet without providing at least one of the following features:
 - a) A variation in building material;
 - b) A building off-set of at least 1 foot;
 - c) A wall area that is entirely separated from other wall areas by a projection, such as an arcade; or
 - d) By other design features that reflect the building's structural system.

- 3) Weather protection. Weather protection for pedestrians, such as awnings, canopies and arcades. *should/shall* be provided at building entrances. Weather protection *shall* be encouraged along building frontages abutting a public sidewalk or a hard-surfaced expansion of a sidewalk, and along building frontages between a building entrance and a public street or access way. Awnings and canopies *should/shall not* be back lit.

- 4) Building materials. Corrugated metal, plywood, sheet press board or vinyl siding *should/shall not* be used as exterior finish material. Plain concrete block and plain concrete *should/shall not* be used as exterior finish material EXCEPT as a foundation material where the foundation material *should/shall not* revealed for more the 2 feet.
- 5) Roofs and roof lines. EXCEPT in the case of a building entrance feature, roofs *should/shall* be designed as an extension of the primary materials used for the building and should respect the building's structural system and architectural style. False fronts and false roofs *should/shall not* be used.
- 6) Roof-mounted equipment. All roof-mounted equipment *should /shall* be screened from view from adjacent public streets. Satellite dishes and other communication equipment *should/shall* be set back or positioned on a roof so that exposure from adjacent public streets is minimized. Solar heating panels *shall/shall* be exempt from this guideline.

C. Architectural Design Guidelines For the Exterior Alteration of Existing Buildings

1. General Scope. An application for exterior alteration of an existing building should be approved if the change or the treatment proposed is determined to be harmonious and compatible with the appearance and character of the building and should not be approved if found to be detrimental to or otherwise adversely affecting the architectural significance, integrity, historic appearance, or historic value of the building.
2. Design Guidelines. The following guidelines shall apply to the exterior alterations to existing buildings:
 - a. Retention of original construction. So far as possible, all original exterior materials and details *should* be preserved or reproduced to match the original.
 - b. Height. Additional stories *may* be added to buildings provided that:
 - 1) The added height complies with requirements of the state

Building Code; and

- 2) The added height does not alter the traditional scale and proportions of the building style; and
 - 3) The added height is visually compatible with adjacent buildings.
- c. Bulk. Horizontal additions *may* be added to buildings provided that:
- 1) The building of the addition does not exceed that which was traditional for the building style; and
 - 2) The addition maintains the traditional scale and proportion of the building; and
 - 3) The addition is visually compatible with adjacent buildings.
- d. Visual Integrity of Structure. The lines of columns, piers, spandrels, and other primary structural elements *should* be maintained so far as practicable.
- e. Scale and Proportion. The scale and proportion of altered or added building elements, the relationship of voids to solid (windows to wall) *should* be visually compatible with the traditional architectural character of the building.
- f. Material, Color and Texture. The materials, colors and textures used in the alteration or addition *should* be fully compatible with the traditional architectural character of the historic building. In general colors *should* be emphasized as follows: darker colors for window sashes; medium for building; and lightest for window trim and detailing.
- g. Lighting and Other Appurtenances. Exterior lighting and other appurtenances, such as walls, fences, awnings, and landscaping *should* be visually compatible with the traditional architectural character of the building.

3.107.08

Design Guidelines for IP, IL and SWIR Zones

A. Applicability.

The following design guidelines shall apply to all structures and buildings in the IP, IL and SWIR zones.

B. Design Guidelines.

1. Loading.

- a. Loading facilities *should* be located at the rear or side of structures to reduce their unsightly appearance.
- b. Loading facilities located on the front or side of a structure, the visual impact from the abutting street *should* be mitigated by:
 - 1) Offsetting the location of the driveway entrance and the loading dock; and
 - 2) Screening the loading area with a sight obscuring fence, wall or hedge.
 - 3) Loading areas should be located on the site so that backing onto or off the street frontage is not required.

2. Outdoor Storage. Outdoor storage, when permitted, *should* be screened from the view of abutting streets by a solid brick or architectural block wall not less than 6, nor more than 9 feet in height.

3. Outdoor Lighting. All outdoor lighting *should* be designed so as not to shine or reflect into any adjacent residentially zoned or used property, and shall not cast a glare onto moving vehicles on any public street.

4. Energy Efficiency. Building and location, orientation, and design *should* encourage energy conservation and solar access.

5. Building Bulk and Scale. Long blank walls abutting streets *should* be avoided. The visual impact of building and scale *should be*

reduced by:

- a. Articulating building facades;
 - b. Landscaping the area abutting building walls, including plant materials that provide vertical accents;
 - c. Tying entrances to the structure to the overall mass and composition of the building;
 - d. Minimizing the use of smooth concrete, concrete block and all types of metal siding;
 - e. Shading colors with brown or black to create earth tones or tinting colors with white to soften the appearance. Day-glow, fluorescent and other intense colors **shall** be prohibited;
 - f. Screening exterior building equipment, including roof top equipment, from view; and
 - g. Altering roof lines, constructing cornices, or parapets that offset the continuous plane of large buildings and extended building lines.
6. Buffer Wall. A solid brick or architectural wall with anti-graffiti surface, no less than 6 feet or greater than 7 feet in height:
- a. **Should** be constructed on the perimeter property line of non-residential development to mitigate adverse visual, noise and/or light impacts on the abutting use when no comparable buffer exists; and
 - b. **Shall** be constructed where the standards of the underlying zone require such a wall for a non-residential use in, or abutting, a RS, R1S, or RM zoning district.
7. Sidewalk Location and Street Trees. Sidewalks **should** be located at the property line along streets with street trees, **Section 3.106**.
8. Solar Access Protection. Obstruction of existing solar collectors on abutting properties by site development **should** be mitigated.

3.109 Planned Unit Development Standards (See Figure 6.11)

3.109.01 Types of PUD's

A. Single Family Residential PUD.

A "Single Family Residential PUD" shall consist entirely of property zoned RS and/or R1S. All uses allowed (permitted, special, conditional, specific conditional and accessory) by the underlying zone shall be allowed.

B. Mixed Use PUD.

A "Mixed Use PUD" shall include land zoned either RM, CO, NNC, CG, SWIR, IP or IL, and may include land zoned RS or R1S. All uses allowed (permitted, special, conditional, specific conditional and accessory) by the underlying zone shall be allowed.

3.109.02 Flexible Standards

The design of a PUD plan may be flexible to the extent that it provides for the following design elements in compliance with stated minimum standards. The minimum standards of the *WDO* stated below shall supercede the standards of the underlying zone for a PUD, except the standards of the Nodal Overlay Districts, *Section 2.115*, shall supercede the standards of *Section 3.109.02.B, C, and F*.

A. Minimum PUD Site Area.

A PUD shall comprise a minimum of 5.0 acres under single ownership or control.

B. Minimum Lot Standards in an RS zone.

1. The minimum single family dwelling lot area shall be as follows:

a. Without common open space:

- 1) 6,000 sq. ft. for an interior, flag or cul de sac lot; and
- 2) 8,000 sq. ft. for a corner lot

subject to the dimensional standards of *Section 2.102.06*.

b. With common open space:

1) 5,000 sq. ft. for an interior lot, flag or cul de sac, subject to the dimensional standards of **Section 2.102.06**. EXCEPT for the following modified standards:

- a) Minimum lot width: 55 feet.
- b) Minimum average lot depth: 90 feet; and

2) 7,000 sq. ft. for a corner lot, subject to the dimensional standards of **Section 2.102.06**. EXCEPT for the following modified standards:

- a) Minimum lot width: 75 feet.
- b) Minimum average lot depth: 90 feet

2. The minimum duplex dwelling lot size, as a Special Use, shall be as follows:

- a. Without common open space: 12,000 sq. ft.
- b. With common open space: 10,000 sq. ft.

C. Residential Density Standards.

- 1. RS or RIS zone: The maximum residential density shall be 6 dwelling units per gross acre.
- 2. RM, CO, NNC or CG zone. The maximum residential density shall be as follows:
 - a. Multiple Family: A maximum of 16 dwelling units per net acre.
 - b. Nursing Care and Assisted Care: A maximum of 32 living units per net acre.
 - c. Manufactured Dwellings in a MDP within a RM zone: A maximum of 12 dwelling units per net acre.

D. Common Ownership of Land and Facilities within any Zone.

- 1. A Property (Home) Owners Association and CC&R's for maintenance shall be required when a PUD includes common land or facilities.

2. Minimum Common Area.

a. RS or R1S zone.

- 1) No minimum common area shall be required when residential density is 4 dwellings or less per gross acre.
- 2) When common area is provided, a minimum ratio of 0.1 acre per acre of PUD shall be required;
- 3) A minimum of 0.5 acres of common area shall be required when a common area is provided. The minimum width of a common area shall average 100 feet.
- 4) Common areas shall be one or more of the following types:

- a) Natural Areas. Natural areas shall be significant natural resources, including wetlands, creek corridors, woodlands, flood ways, meadows conserved in a virtually undeveloped state. The intent of any man-made improvements should be to enhance opportunities for viewing, studying and other measures to increase the passive enjoyment of the natural setting. Improvements may include paths, educational signs, view points.
- b) Activity Areas. Activity areas shall be common open space designated, designed and improved for active recreational use. Improvements should accommodate and stimulate active use and may include playgrounds, swimming pools, tennis courts, bar-b-ques and picnic facilities.
- c) Landscaped Areas. Landscaped areas are areas of common open space that are designed and improved for passive use and visual enhancement. Typical improvements include lighted paths, benches, fountains and other water features, signs identifying plant materials, and formal and informal gardens.

- b. Medium Density Residential Buildings. The applicable open space and common area requirements of *Section 3.107.05* shall apply.
- c. All other uses. The common area requirements of the underlying zone shall apply.

E. Architectural Review.

If the hearings authority finds that the CC&R's comprehensively address the intent of all applicable factors in **Section 3.107**, the hearings authority may approve the CC&R's to supercede City architectural design review requirements, **Section 3.107** and procedures in **Section 5.101.01**.

F. Dimensional Standards.

1. The minimum setback for a yard abutting a street in an RS or R1S zone shall be 10 feet EXCEPT that a 20-foot long by 10-foot wide parking pad shall be provided abutting each garage (or carport for a manufactured home) entrance.
2. The minimum setback for an interior rear yard in an RS, R1S or RM zone shall be 20 feet minimum.
3. Off street parking: The narrower local street standards of **Section 3.101** may be applied in compliance with the requirements for compensating common, off street parking.

G. Applicable Standards.

The following standards of the **WDO** shall apply to a PUD:

1. The underlying use zone, or zones of **Section 2.1**;
2. **Section 3.101**, Street Standards, including street names, **Section 3.101.I**;
3. **Section 3.102**, Utilities and Easements;
4. **Section 3.103**, General Lot Standards;
5. **Section 3.104**, Access;
6. Buffer Wall. A solid brick or architectural wall with anti-graffiti surface, no less than 6 feet or greater than 7 feet in height, shall be constructed on the perimeter property lines of residential subdivisions where the abutting use is commercial or industrial and no comparable buffer exists;
7. **Section 3.109.01**; and

all other applicable requirements of the **WDO** as modified by **Sections 3.109.02, 5.102.03 and 5.103.11**.

H. Applicable Procedures.

The procedures of the *WDO* shall apply to a PUD, including *Section 4.1*.

I. Application Requirements.

The application requirements of the *WDO* shall apply to a PUD, including:

- a. *Section 5.103.07* for a PUD preliminary plan approval,
- b. *Section 5.103.06* for a PUD design plan final approval.
- c. *Section 5.103.05* for a PUD phasing plan approval, and
- d. *Section 5.101.06* for a PUD final plan approval.

J. Description of Applicable Exhibits.

Section 6.101 provides uniform guidelines regarding the exhibits necessary for a PUD application.

3.110 Signs

(Changes are proposed only to Sections 3.110.17 and 3.110.18)

3.110.17 Permitted Signs--Downtown Development and Conservation District (DDC) and Nodal Neighborhood Commercial District (NNC)

Signs in the DDC and NNC Districts shall be subject to the following provisions and all other applicable provisions of **Section 3.110** and the **WDO**.

A. Monument Signs.

1. A monument sign is permitted on a single tenant site or complex.
2. A monument sign shall not exceed five feet in height and 20 square feet in area.

B. Wall Signs.

1. Wall signs are permitted on a primary building frontage. Such signs shall not cover more than four percent of the building wall on a single tenant building or each tenant's leased wall on a multiple tenant building and shall not exceed a maximum area of 50 square feet. However, a minimum sign area of 16 square feet shall be permitted for each single tenant building or tenant in a multiple tenant building. Only one building wall shall be designated as the primary building frontage.
2. Wall signs are permitted on secondary building frontages. Such signs shall not cover more than two percent of the building wall on a single tenant building or each tenant's leased wall on a multiple tenant building and shall not exceed a maximum area of 30 square feet. However, a minimum sign area of 12 square feet is allowed for each single tenant building or tenant in a multiple tenant building.

C. Readerboards.

Mechanical and electronic changeable copy readerboards are permitted. Readerboards are permitted on monument signs only. Readerboards shall be integrated into the overall sign to appear as a single unit and shall not comprise more than 50 percent of the total sign display surface.

D. Awning and Marquee Signs.

Signs on awnings and marquees are permitted as wall signs, except that internally illuminated awning signs are prohibited. Signs on awnings and marquees shall not extend above or below the awning or marquee.

E. Projecting Signs.

One projecting sign is permitted on a single tenant site or complex for each street or alley frontage. However, no projecting sign shall be permitted on a single tenant site or complex where there is a monument sign on the same street frontage. Projecting signs shall not exceed an area of 12 square feet and shall be located a minimum of eight feet above the ground. Such signs shall not project more than four feet from a building wall.

F. Suspended Signs.

One suspended sign is permitted for each entrance to a building or tenant space. Such sign shall not exceed an area of six square feet and shall be located a minimum of eight feet above the ground. Such sign shall not project past the outer edge of the roof structure.

G. General Standards.

1. Projecting signs shall be subject to approval of a Type II application pursuant to **Section 3.110.05.C.1.b**.
2. Illumination: Externally or internally illuminated signs are permitted and such signs shall not cause glare.

3.110.18 Permitted Signs—Industrial Districts (IP, IL, and SWIR)

Signs in the IP, IL, and SWIR Districts shall be subject to the following provisions and all other applicable provisions of **Section 3.110** and the **WDO**.

A. Monument Signs.

1. One monument sign is permitted on a single tenant site or complex.
2. In a complex, one additional monument sign is permitted if the complex has at least two street frontages that each exceed 300 lineal feet.
3. Monument signs on a street frontage with less than 300 lineal feet of frontage shall not exceed six feet in height and 32 square feet in area.
4. Monument signs on a street frontage with 300 lineal feet or more of frontage shall not exceed eight feet in height and 50 square feet in area.

B. Wall Signs.

1. Wall signs are permitted on a primary building frontage. Such signs shall not cover more than four percent of the building wall on a single tenant building or each tenant's leased wall on a multiple tenant building and shall not exceed a maximum area of 150 square feet. However, a minimum sign area of 16 square feet shall be permitted for each single tenant building or tenant in a multiple tenant building. Only one building wall shall be designated as the primary building frontage.
2. Wall signs are permitted on secondary building frontages. Such signs shall not cover more than two percent of the building wall on a single tenant building or each tenant's leased wall on a multiple tenant building and shall not exceed a maximum area of 75 square feet. However, a minimum sign area of 12 square feet is allowed for each single tenant building or tenant in a multiple tenant building.

C. Readerboards.

Mechanical and electronic changeable copy readerboards are permitted. Readerboards are permitted on monument signs only. Readerboards shall be integrated into the overall sign to appear as a single unit and shall not comprise more than 50 percent of the total sign display surface.

D. Awning and Marquee Signs.

Signs on awnings and marquees are permitted as wall signs, except that internally illuminated awning signs are prohibited. Signs on awnings and marquees shall not extend above or below the awning or marquee.

E. Projecting Signs.

One projecting sign is permitted on a single tenant site or complex. However, no projecting sign shall be permitted on a single tenant site or complex where there is a monument sign. Projecting signs shall not exceed an area of 20 square feet and shall be located a minimum of eight feet above the ground. Such signs shall not project more than four feet from a building wall.

F. Suspended Signs.

One suspended sign is permitted for each entrance to a building or tenant space. Such sign shall not exceed an area of six square feet and shall be located a minimum of eight feet above the ground. Such sign shall not project past the outer

edge of the roof structure.

G. General Standards.

1. Monument signs within the same complex shall be located a minimum of 100 feet apart.
2. Illumination. Externally or internally illuminated signs are permitted and such signs shall not cause glare.

4.1 ADMINISTRATION AND PROCEDURES

(Changes are proposed only to Section 4.101.09)

4.101.09 Public Notices: Type II, III, IV and V

All public notices issued by the City for Type II, III, IV, and V decisions shall comply with the requirements of this *Section*.

A) Mailed Notice.

- 1 Type II. After the Community Development Director has deemed a Type II application complete, the Community Development Director shall issue a decision. The City shall send notice of the decision, by first class mail, to all record owners of property within 250 feet of the subject property, any City recognized neighborhood associations whose territory includes the subject property. The City's Type II notice of decision shall include the following information:
 - a. An explanation of the nature of the application and the proposed use or uses which could be authorized;
 - b. Street address or other easily understood location of the subject property;
 - c. The name and telephone number of the planning staff person assigned to the application or is otherwise available to answer questions about the application;
 - d. A statement that the application and all supporting materials may be inspected at no cost, and copies may be obtained at reasonable cost, at City Hall during normal business hours;
 - e. State that the decision will not become final until the period for filing an appeal to the City Council has expired and that the decision cannot be appealed directly to the Land Use Board of Appeals; and
 - f. An explanation of appeal rights, including that any person who is adversely affected or aggrieved or who is entitled to written notice of the decision may appeal the decision.

2. Type III or IV. Notice for all initial evidential public hearings concerning Type III and IV decisions shall conform to the requirements of this subsection. At least 20 days before a Type III initial evidentiary hearing, or at least 10 days before the first hearing of a Type IV application the Director shall prepare and send, by first class mail, notice of the hearing to all record owners of property within 250 feet of the subject property and to any City-recognized neighborhood association whose territory includes the subject property. If an application would change the zone of property that includes any part of a mobile home or manufactured dwelling park, notice shall also be mailed to the tenants at least 20 days before but not more than 40 days before the initial evidentiary hearing. Notice of the application hearing shall include the following information: [Section 4.101.09.A.2 as amended by Ordinance No. 2383, §54, passed March 16, 2005.]
- a. The time, date and location of the public hearing;
 - b. Street address or other easily understood location of the subject property and City-assigned planning file number;
 - c. A description of the applicant's proposal, along with a list of citations of the approval criteria that the City will use to evaluate the proposal;
 - d. A statement that any interested party may testify at the hearing or submit written comments on the proposal at or before the hearing and that a staff report will be prepared and made available to the public at least seven days prior to the hearing;
 - e. A statement that any issue which is intended to provide a basis for an appeal to the City Council must be raised before the close of the public record. Issues must be raised and accompanied by statements or evidence sufficient to afford the City and all parties to respond to the issue;
 - f. A statement that the application and all supporting materials and evidence submitted in support of the application may be inspected at no charge and that copies may be obtained at reasonable cost at City Hall during normal business hours;
 - g. The name and telephone number of the planning staff person responsible for the application or is otherwise available to answer questions about the application; and

- h. A statement advising that ADA access may be accommodated, upon receipt of a timely request.
3. Type V. At least 20 days before an initial evidentiary public hearing at which a Type V decision is to be considered, the Director shall issue a public notice that conforms to the requirements of this subsection and any applicable state statute. Notice shall be sent to affected governmental entities, special districts, providers of urban services, the Oregon Department of Transportation and any affected recognized neighborhood associations and any party who has requested in writing such notice. [Section 4.101.09.A.3 as amended by Ordinance No. 2383, §55, passed March 16, 2005.]

Notice shall also be published in a newspaper of general circulation within the City. Notice issued under this subsection shall include the following information:

- a. The time, date and location of the public hearing;
 - b. The City-assigned planning file number and title of the proposal;
 - c. A description of the proposal in sufficient detail for people to determine the nature of the change being proposed;
 - d. A statement that any interested party may testify at the hearing or submit written comments on the proposal at or before to the hearing;
 - e. The name and telephone number of the planning staff person responsible for the proposal and who interested people may contact for further information; and
 - f. A statement advising that ADA access may be accommodated, upon receipt of a timely request.
- B. Posted Notice. Type III and IV.

Notice of an initial evidentiary public hearing for a Type III or IV decision shall be posted on the subject property as follows: [Section 4.101.09.B as amended by Ordinance No. 2383, §56, passed March 16, 2005.]

1. City Posting. The Community Development Director shall post all required notices.
2. Number and Location. The Community Development Director shall post a notice on each frontage of the subject property. If the property's frontage exceeds 600 feet, one copy of the notice shall be posted for each 600 feet or fraction thereof. Notices shall be posted within ten feet of the street and shall be visible to pedestrians and motorists.
3. Timing of Notice. The notice shall be posted at least 10 days prior to a public hearing. Once posted, the Director need not maintain a posted notice. The Community Development Director shall remove all signs within ten days following the event announced in the notice.

C. Published Notice. Type IV and V.

The Community Development Director shall publish a notice of a Type IV or V public hearing as described in this subsection, unless otherwise specified by statute. The notice shall be published in a newspaper of general circulation within the City at least 7 days prior to the hearing. Such notice shall consist of:

1. The time, date and location of the public hearing;
2. The address or other easily understood location of the subject property and the City-assigned planning file number;
3. A summary of the principal features of the application or legislative proposal; and
4. Any other information required by statute for an annexation or other hearing procedure.

D. Notice to Affected Agencies.

1. Prior to issuing a decision regarding a Preliminary Partition Approval (*Section 5.102.01*) or Access to a City Major or Minor Arterial Street (*Section 5.102.04*), the Community Development Director shall distribute such applications that require preparation of a Transportation Impact Analysis to affected transportation facility and service providers and owning jurisdictions. These agencies shall be given 30 calendar days to review the application and to suggest any revisions in the public's interest to protect the operation of transportation facilities and services.

2. Type IV applications and Type III applications for Preliminary PUD Approval (*Section 5.103.07*), Preliminary Subdivision Approval (*Section 5.105.09*) and Conditional Use Permits (*Section 5.103.01*) for transportation system facilities and improvements that require a Transportation Impact Analysis shall be sent to affected transportation facility and service providers and owning jurisdictions. These agencies shall be given 30 calendar days to review the application and to suggest any revisions in the public's interest to protect the operation of transportation facilities and services.

5.104 Type IV Application Requirements

(Changes are proposed only to Sections 5.104.01, 5.104.02 and 5.104.04)

5.104.01 Annexation

- A. Purpose. The purpose is to provide a procedure to incorporate contiguous territory into the City of Woodburn in compliance with state requirements and the Woodburn Comprehensive Plan.
- B. Mandatory Pre-Application Conference.
 - 1. Annexation proposals are subject to a mandatory Pre-application Conference. The Conference shall be conducted pursuant to **Section 4.101.04**.
 - 2. Pre-Application materials. Anyone proposing an annexation shall submit the following materials when applying for the Mandatory Pre-Application Conference:
 - a. A preliminary site plan and phasing program for the proposed use and development;
 - b. Certification by the Public Works department of the adequate capacity of public facilities to serve the proposed development or that facilities necessary to provide adequate capacity must be determined;
 - c. Written documentation from the School District regarding adequate capacity, considering current and future enrollment and facilities, to serve the proposed development and from the Fire District regarding adequate capacity and access to serve the proposed development;
 - d. Traffic generation data regarding the proposed development sufficient to determine the need for a Traffic Impact Analysis;
 - e. Consent to annex all property that would be surrounded by the City if the annexation were approved, or written documentation regarding why such consent is unavailable; and

- f. Written narrative statement showing compliance with applicable Woodburn Comprehensive Plan goals and policies regarding annexation.
- C. Annexation Application Requirements. An application shall include a completed City application form, filing fee, deeds, notification area map and labels, narrative statement regarding compliance with criteria, location map and the following additional exhibits:
1. A fully executed Annexation Petition, submitted on forms provided by the City of Woodburn;
 2. An accurate legal description in a form certifiable the State Department of Revenue according to ORS 308.225;
 3. Complete applications for all concurrent Comprehensive Plan Map amendment and/or Zoning Map change requests.
- D. Application Criteria.
1. Annexation
 - a. Findings showing compliance with applicable Woodburn Comprehensive Plan goals and policies regarding annexation, with the applicant bearing responsibility for the burden of proof.
 - b. Territory to be annexed
 - 1) Shall be contiguous to the City of Woodburn; and
 - 2) Shall either:
 - a) Link to master plan public facilities with adequate capacity to serve development of the uses and densities indicated by the Woodburn Comprehensive Plan; or
 - b) Guarantee the facility linkages with adequate capacity, financed by the applicant.
 - c. Annexations shall show a demonstrated community need for additional territory and development based on the following considerations:

- 1) Lands designated for residential and community uses should demonstrate substantial conformance to: a), b), and e) and at least one of c) (i), c) (ii) or d), as stated below; and [Section 5.104.01.D.1.c.1 as amended by Ordinance No. 2383, §66, passed March 16, 2005.]

- 2) Lands designated for commercial, industrial and other uses should demonstrate substantial conformance to: h) and either f) or g), as stated below:
 - a) Infill. The territory to be annexed should be contiguous to the City on two or more sides;

 - b) Residential Buildable Land Inventory. The territory to be annexed should not increase the inventory of buildable land designated on the Comprehensive Plan as Low or High Density Residential within the City to more than a 5-year supply;

 - c) Street Connectivity. It is feasible for development of the site to either:
 - (i) Complete or extend the arterial/collector street pattern as depicted on the Woodburn Transportation System Plan; or

 - (ii) Connect existing stub streets, or other discontinuous streets, with another public street.

 - d) Community Need. The proposed development in the area to be annexed fulfills a substantial unmet community need, that has been identified by the City Council after a public hearing. Examples of community needs include park space and conservation of significant natural or historic resources.

 - e) Reinforcement of Public Investment. The territory proposed for annexation should reflect the City's goals for directing growth by using public facility capacity that has been funded by the City's capital improvement program;

- f) Local Employment. The proposed use of the territory to be annexed shall be for industrial or other uses providing employment opportunities;
 - g) Reasonable Facility and Service Needs. The proposed industrial or commercial use of the territory does not require the expansion of infrastructure, additional service capacity, or incentives that are in excess of the costs normally born by the community for development;
 - h) Economic Diversification. The proposed industrial or commercial use of the territory provides an economic opportunity for the City to diversify its economy.
- d. Right to Farm Covenant. An application to annex land that is designated Low or Medium Density Residential on the Comprehensive Plan Map shall include a covenant on such property to be annexed where the owners, their successors, heirs, assigns and lessees, accept possible impacts from farming practices as normal, necessary and part of the risk of establishing a dwelling, structure, or use in the area; acknowledge the need to avoid activities that conflict with farming practices on nearby property; and, covenant not to pursue any claim for relief or cause of action alleging injury from farming practices for which no action is specifically allowed under **ORS 30.936 or 30.937**.

E. Procedures.

- 1. Annexation Initiated by Consent. *[ORS 222.125 and 222.170 (2)]* An annexation may be initiated by petition based on the written consent of:
 - a. The owners of more than half of the territory proposed for annexation and more than half of the resident electors within the territory proposed to be annexed; or
 - b. One hundred percent of the owners and fifty percent of the electors within the territory proposed to be annexed; or
 - c. A lesser number of property owners.

2. If an annexation is initiated by Section 5.104.01.E.1.c., after holding a public hearing and if the City Council approves the proposed annexation, the City Council shall call for an election within the territory to be annexed. Otherwise no election on a proposed annexation is required.
3. City Initiated Annexation of an Island. An island is an unincorporated territory surrounded by the boundaries of the City. The Oregon Revised Statutes (ORS) enables the City to initiate annexation of an island (ORS 222.750), with or without the consent of the property owners or the resident electors. Initiation of such an action is at the discretion of the City Council.

5.104.02 Comprehensive Plan Map Change, Owner Initiated

- A. Purpose: The purpose is to provide a procedure for the consideration of a change in use designation on the Woodburn Comprehensive Plan, initiated by the property owner.
- B. Application Requirements. An application shall include a completed City application form, filing fee, deeds, notification area map and labels, written narrative statement regarding compliance with criteria, location map and the following additional exhibit:

1. Transportation Impact Analysis (TIA), as applicable.

The application shall be reviewed to determine whether it significantly affects a transportation facility, in accordance with Oregon Administrative Rule (OAR) 660-012-0060. If the review indicates that a transportation facility could be significantly affected, a TIA may be required. Significant means the proposal would:

- a. Change the functional classification of an existing or planned transportation facility. This would occur, for example, when a proposal causes future traffic to exceed the capacity of “collector” street classification, requiring a change in the classification to an “arterial” street, as identified by the Transportation System Plan; or
- b. Change the standards implementing a functional classification system; or
- c. Allow types or levels of land use that would result in levels of travel or access that are inconsistent with the functional classification of a transportation facility; or

- e. Reduce the level of service of the facility below the minimum acceptable level identified in the Transportation System Plan.
- C. Criteria. The applicant shall bear the responsibility for the burden of proof.
- 1. Proof that the current Comprehensive Plan Map is in error, if applicable.
 - 2. Substantial evidence showing how changes in the community warrant the proposed change in the pattern and allocation of land use designations.
 - 3. Substantial evidence showing how the proposed change in the land use designation complies with:
 - a. Statewide Planning Goals and Oregon Administrative Rules;
 - b. Comprehensive Plan goals and policies; and
 - c. Sustains the balance of needed land uses within the Woodburn Urban Growth Boundary.
 - 4. Amendments to the comprehensive plan and land use standards which significantly affect a transportation facility shall assure that allowed land uses are consistent with the function, capacity, and level of service of the facility identified in the Transportation System Plan. This shall be accomplished by one of the following:
 - a. Limiting allowed land uses to be consistent with the planned function of the transportation facility; or
 - b. Amending the Transportation System Plan to ensure that existing, improved, or new transportation facilities are adequate to support the proposed land uses consistent with the requirement of the Transportation Planning Rule; or,
 - c. Altering land use designations, densities, or design requirements to reduce demand for automobile travel and meet travel needs through other modes of transportation.

5.104.04 **Zoning Map Change, Owner Initiated**

- A. Purpose: The purpose is to provide a procedure to change the Zoning Map use designation, in a manner consistent with the Woodburn Comprehensive Plan.
- B. Application Requirements. An application shall include a completed City application form, filing fee, deeds, notification area map and labels, written narrative statement regarding compliance with criteria, location map and the following additional exhibit:
 - 1. Transportation Impact Analysis (TIA), as applicable.

The application shall be reviewed to determine whether it significantly affects a transportation facility, in accordance with Oregon Administrative Rule (OAR) 660-012-0060. If the review indicates that a transportation facility could be significantly affected, a TIA may be required. Significant means the proposal would:

- a. Change the functional classification of an existing or planned transportation facility. This would occur, for example, when a proposal causes future traffic to exceed the capacity of “collector” street classification, requiring a change in the classification to an “arterial” street, as identified by the Transportation System Plan; or
- b. Change the standards implementing a functional classification system; or
- c. Allow types or levels of land use that would result in levels of travel or access that are inconsistent with the functional classification of a transportation facility; or
- d. Reduce the level of service of the facility below the minimum acceptable level identified in the Transportation System Plan.

- C. Criteria. The applicant shall bear the responsibility for the burden of proof.
 - 1. Evidence proving a need for the proposed use and the other permitted uses within the proposed zoning designation.
 - 2. Evidence that the subject property best meets the need relative to other properties in the existing developable land inventory already designated with the same zone considering size, location, configuration, visibility and other significant attributes of the subject property.

3. Amendments to the comprehensive plan, zoning map and land use standards which significantly affect a transportation facility shall assure that allowed land uses are consistent with the function, capacity, and level of service of the facility identified in the Transportation System Plan. This shall be accomplished by one of the following:
 - a. Limiting allowed land uses to be consistent with the planned function of the transportation facility; or
 - b. Amending the Transportation System Plan to ensure that existing, improved, or new transportation facilities are adequate to support the proposed land uses consistent with the requirement of the Transportation Planning Rule; or,
 - c. Altering land use designations, densities, or design requirements to reduce demand for automobile travel and meet travel needs through other modes of transportation.

D. Delineation.

Upon approval, a zone change shall be delineated on the official zoning map by the Community Development Director. A zone change subject to specific conditions shall be annotated on the official zoning map to indicate that such conditions are attached to the designation.

6.101 Description of Application Exhibits

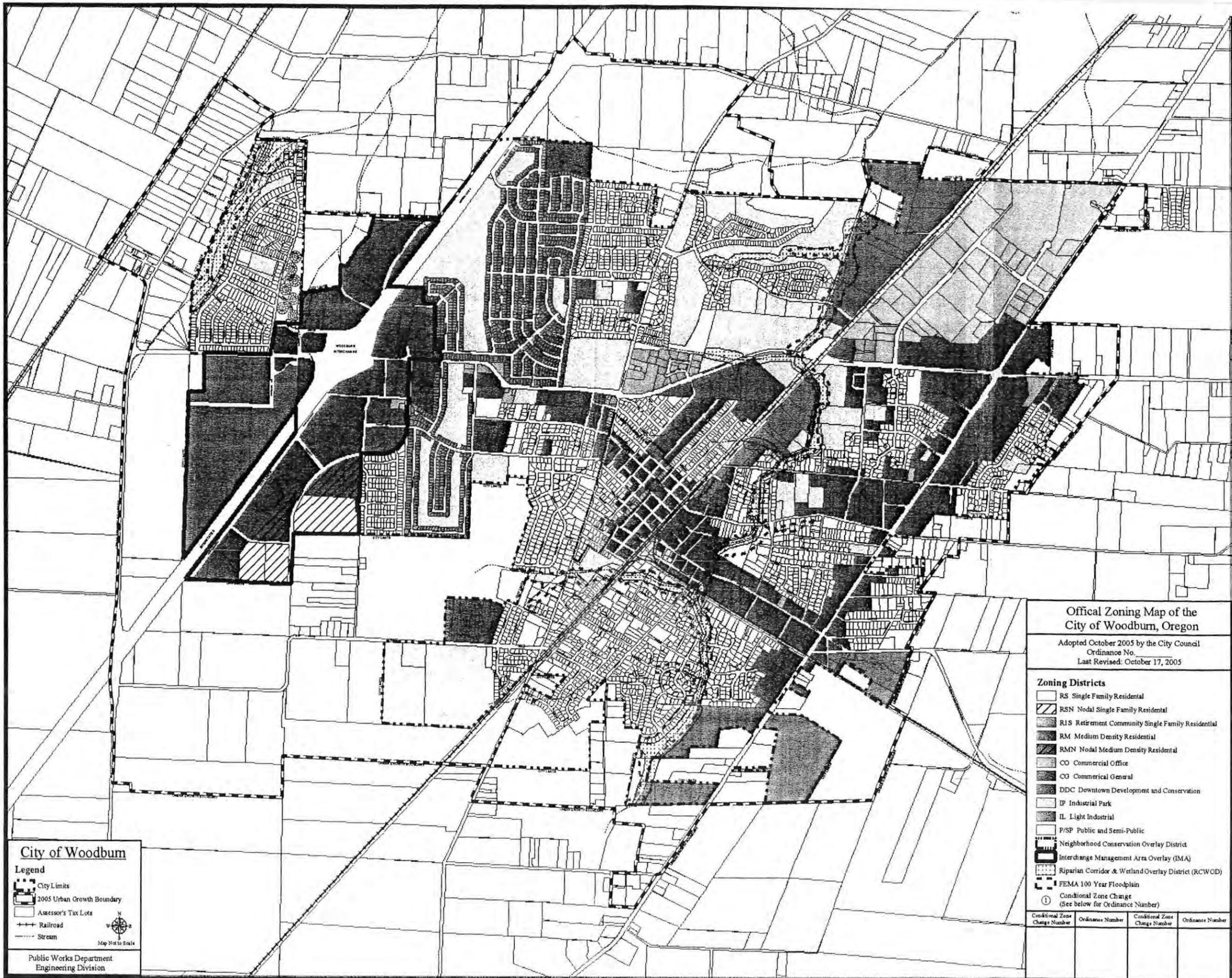
(Changes are proposed only to Section 6.101.01.Q)

Q. Transportation Impact Analysis (TIA) Requirements.

A Transportation Impact Analysis required for either a street (or access to a street) that is under City jurisdiction, a comprehensive plan map change, or a zoning map change shall be conducted to the specifications of the Public Works Department.

Figure 6.6 Street: Typical Cross Sections

(Delete Figure 6.6)



City of Woodburn
Legend
 City Limits
 2005 Urban Growth Boundary
 Assessor's Tax Lots
 Railroad
 Stream
 Map Not to Scale
 Public Works Department
 Engineering Division

Official Zoning Map of the City of Woodburn, Oregon
 Adopted October 2005 by the City Council
 Ordinance No. _____
 Last Revised: October 17, 2005

Zoning Districts

- RS Single Family Residential
- RSN Nodal Single Family Residential
- RIS Retirement Community Single Family Residential
- RM Medium Density Residential
- RMN Nodal Medium Density Residential
- CO Commercial Office
- CG Commercial General
- DDC Downtown Development and Conservation
- IP Industrial Park
- IL Light Industrial
- P/SP Public and Semi-Public
- Neighborhood Conservation Overlay District
- Interchange Management Area Overlay (IMA)
- Riparian Corridor & Wetland Overlay District (RCWOD)
- FEMA 100 Year Floodplain
- Conditional Zone Change (See below for Ordinance Number)

Conditional Zone Change Number	Ordinance Number	Conditional Zone Change Number	Ordinance Number

OVERVIEW OF WOODBURN ECONOMY

Table 2-1 shows population has grown faster in Woodburn than in Marion County, the North Valley region, and Oregon as a whole over the 1980–2000 period. In the 1980s Woodburn grew at an average annual rate of 1.8%, while other areas in Table 2-1 grew at an average annual rate of only 0.8%–1.1%.

The 2000 Census placed Woodburn's population at 20,100—a figure 2,260 persons higher than the 2000 PSU estimate of 17,840. In the 1990s Woodburn grew at an average annual rate of 4.1% compared to 1.9%–2.2% in other areas. Woodburn's share of Marion County's population has increased from 5.5% in 1980 to 7.1% in 2000.

Table 2-1. Population in Oregon, the Portland area, Marion County, and Woodburn, 1980–2000

	1980	1990	2000	AAGR	
				1980-1990	1990-2000
Oregon	2,633,156	2,842,321	3,421,399	0.8%	1.9%
North Valley	1,355,645	1,517,866	1,876,425	1.1%	2.1%
Marion County	204,692	228,483	284,834	1.1%	2.2%
Woodburn	11,196	13,404	20,100	1.8%	4.1%

Source: Population Research Center, Portland State University. "Oregon's Population Increases by More than One-half Million in the 1990s" (Press Release of December 13, 2000); 1998 Oregon Population Report; U.S. Census of Population and Housing, 2000. Data for the North Valley region summarized by ECONorthwest. Notes: AAGR is Average Annual Growth Rate. The North Valley region consists of Clackamas, Marion, Multnomah, Polk, Washington, and Yamhill Counties.

Table 2-2 shows covered employment¹ in the 97071 zip code area, which consists of Woodburn and the surrounding area by sector and industry.² Table 2-2 does not report employment in industries where there are fewer than three firms in order to maintain the confidentiality of individual employers. The industries with the largest level of 1999 employment in the Woodburn area are Lumber & Wood Products (1,013), Food Stores (880), Local Government (841), Food & Kindred Products (776), Agricultural Production-Crops (775), and Eating & Drinking Places (548). Together these industries account for 4,833 jobs or 55% of total employment in the Woodburn area. The data in Table 2-2 is based on confidential records for individual employers

¹ Oregon covered employment and payroll information is based on tax reports submitted quarterly by employers subject to Unemployment Insurance (UI) law and by the program of Unemployment Compensation for Federal Employees (UCFE). Thus, 'covered' employment and payroll refers to workers and wages that are covered by unemployment insurance. Most agricultural employment is not covered. Because Woodburn is in an area with a lot of farm employment, the covered employment estimates underestimate total employment.

² This report will make frequent use of the terms *sector* and *industry*. *Sectors* are groups of *industries*, as defined in the Standard Industrial Classification system used for economic statistics. For example, the Manufacturing sector contains the Lumber & Wood Products, Primary Metal, and other manufacturing industries.

ORGANIZATION OF THIS REPORT

This report is organized as follows:

Chapter 1: Introduction describes the theoretical background for the methods and analysis in this report in terms of building quality communities and the economics of location decisions by households and firms. This chapter also summarizes key City goals and policies related to economic development.

Chapter 2: The Woodburn Economy contains an overview of the Woodburn economy, a review of national and statewide trends and forecasts as the context for economic growth in Woodburn, and previous forecasts of population and employment growth developed for Woodburn.

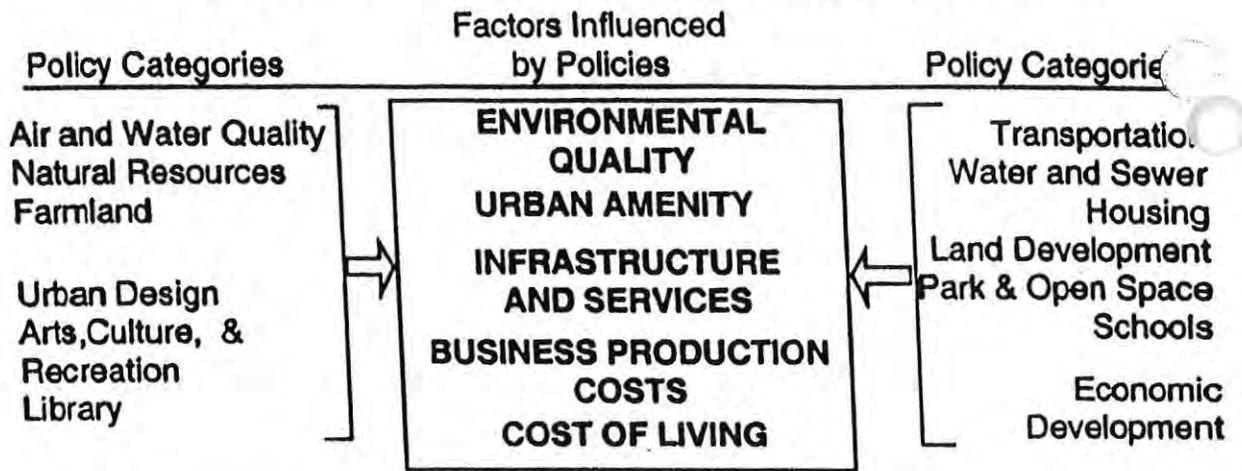
Chapter 3: Factors Affecting Economic Development in Woodburn discusses the condition of these factors in Woodburn and how this compares with other locations in the North Willamette Valley. The factors included in this chapter are location, buildable land, labor force, housing, public services, transportation, renewable and non-renewable resources, and quality of life.

Chapter 4: Target Industries identifies criteria for selecting target industries, applies these criteria to employment data for Woodburn and the North Valley region to select target industries, and discusses the locational needs of these target industries.

Chapter 5: Conclusions summarizes key points from the previous chapters and makes a preliminary identification of potential economic development policies.

This report also includes two appendices. **Appendix A: City Goals for Economic Development** lists Comprehensive Plan goals that are related to economic development, and **Appendix B: Descriptions of Target Industries** provides a description of the target industries discussed in Chapter 4.

Categories of public policy and key factors they influence



To summarize the conclusions:

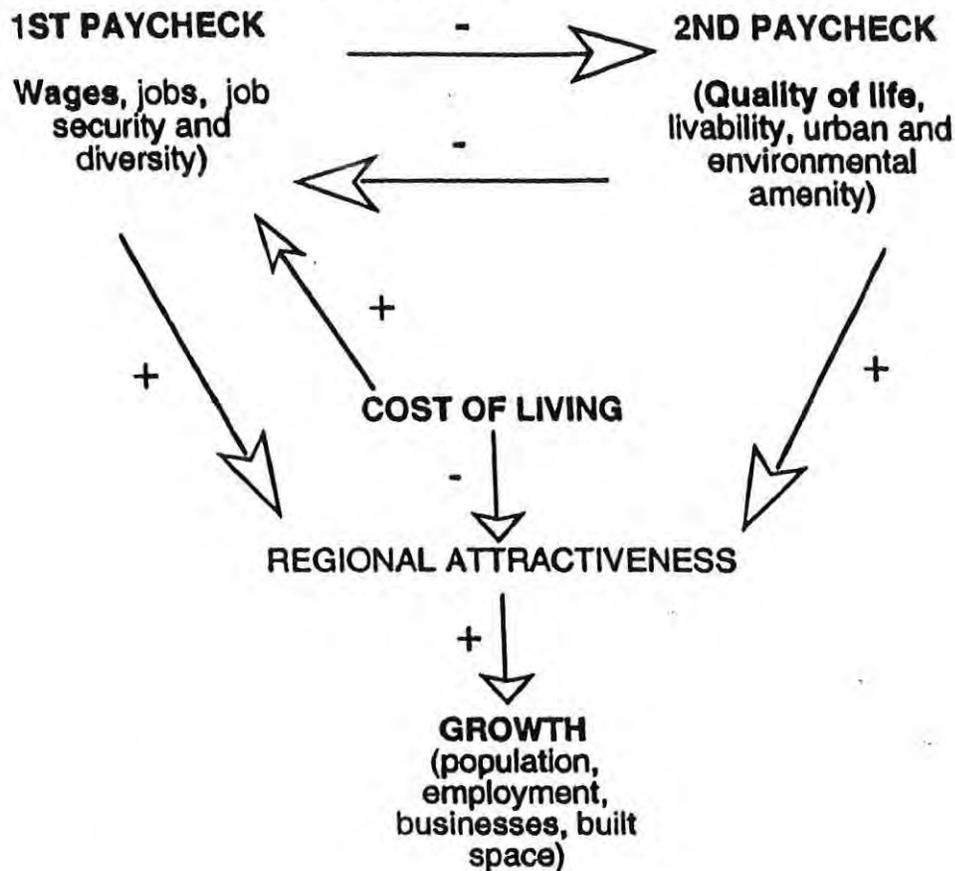
- At a regional level, three categories of variables interact to make a region grow: wages, quality of life, and cost of living.
- This simple categorization quickly gets complex: many sub-categories exist, which interact in complicated ways not only within categories, but also across them.
- Quality-of-life factors have been demonstrated empirically to influence residential and business location decisions.
- Thus, public policymakers must consider a multitude of factors as they try to adopt optimal economic development policies. It is no longer as simple as just recruiting big industries.

CITY GOALS FOR ECONOMIC DEVELOPMENT

Overall, Woodburn's Comprehensive Plan goals and policies are supportive of economic development. They seek to ensure that sufficient land is available for economic growth, that development occurs in an orderly fashion that is coordinated with public service provision, and that the traffic and pollution impacts of growth are mitigated. A list of Comprehensive Plan goals relevant to economic development is presented in Appendix A.

While being generally supportive, changes to these goals and policies may be needed if Woodburn seeks to adopt new economic development strategies. Potential amendments to the Comprehensive Plan will be addressed briefly in this report and in detail in the Development Strategy report that will follow this Economic Opportunities Analysis.

Figure 1-3: Drivers of urban growth



As another example, if one were to expand the element labeled *2nd paycheck*, one would find that regional economic growth does not have unambiguous effects on the second-paycheck components of quality of life. Business growth affects components of quality of life either directly or indirectly through its impact on population growth. If a generalization is required, urban growth probably tends to increase urban amenities (shopping, entertainment, and organized recreational opportunities) and decrease the environmental quality and the capacity of infrastructure.

Figure 1-4 shows that there are many policies a region can adopt to influence the factors affect economic development. Taking just one example, if a region decided it wanted to affect urban form (for example, because of supposed beneficial effects on the cost of infrastructure and quality of life) there are many categories of policies (e.g., land use, transportation, other public facilities) and many subcategories (e.g., for land use: traditional zoning, minimum-density zoning, design standards, etc.; for public facilities: design standards, concurrency requirements, financial incentives, system development charges and exactions, etc.).

Figure 1-3 shows the primary drivers of urban growth as generally accepted by urban and regional economists. It illustrates that households are attracted to different regions based on their estimation (explicit or implicit, accurate or not) of the tradeoffs among three categories of variables: availability of jobs, wages, cost of living, and everything else (which is a broad definition of quality of life). The phrase *2nd paycheck* refers to all those other things that households want. The arrows and signs illustrate the tradeoffs.

For example, if wages increase, other things equal, a region becomes more attractive and growth is stimulated (migration occurs, and ultimately the residential and commercial development to accommodate that growth). Other things, of course, are not equal. That growth can cause the cost of living to increase, which decreases regional attractiveness (but also creates pressure to increase wages). To the extent that households believe that a region offers natural and cultural amenities (quality of life) that are valuable, they will be willing to pay more (cost of living) or accept less (the first paycheck) to live in the region.

Figure 1-3 greatly oversimplifies the dynamics of growth. Each of its elements could be expanded into another diagram. For example, there is a feedback from growth to wages: more growth usually means more demand for labor, which means higher wages to ration an increasingly scarce supply.

FRAMEWORK FOR ECONOMIC DEVELOPMENT

The framework for economic development is defined by OAR 660-009. The administrative rules pertaining to Goal 9 require three key elements:

1. *Economic Opportunities Analysis (OAR 660-009-0015)*. The economic opportunities analysis (EOA) requires communities to review national and state trends, identify target industries, and identify site requirements of industries that may locate or expand in the jurisdiction. The EOA must also include an inventory of lands available for commercial and industrial development.
2. *Industrial and commercial development policies (OAR 660-009-0020)*. Cities are required to develop policies based on the EOA. The policies must include community development objectives that describe the overall objectives for economic development in the planning area and identify categories or particular types of industrial and commercial uses desired by the community. Consistent with the community development objectives, cities must adopt policies to designate an adequate number of sites of suitable sizes, types and locations and ensure necessary public facilities through the public facilities plan for the planning area.
3. *Designation of lands for industrial and commercial uses (OAR 660-009-0025)*. Cities must adopt appropriate implementing measures including: (1) identification of needed sites; (2) assessment of the long-term supply of land available for commercial and industrial uses; and (3) evaluation of the short-term supply of serviceable sites.

WHAT DRIVES LONG-RUN ECONOMIC DEVELOPMENT?

Though there are compelling reasons for setting goals at the beginning of a project, doing so is not without problems. Germane to the issues we are dealing with is the fact that goals, and to even a greater extent the more specific objectives that derive from them, are (or should be influenced) by a pragmatic understanding of the relationships between cause and effect in the system of interest. Without that understanding one risks pursuing goals that are unattainable, or actions that are inefficient in achieving them. Some rudimentary understanding of the relationships is essential to developing defensible answers to the overarching policy question: what happens when I pull this policy lever?

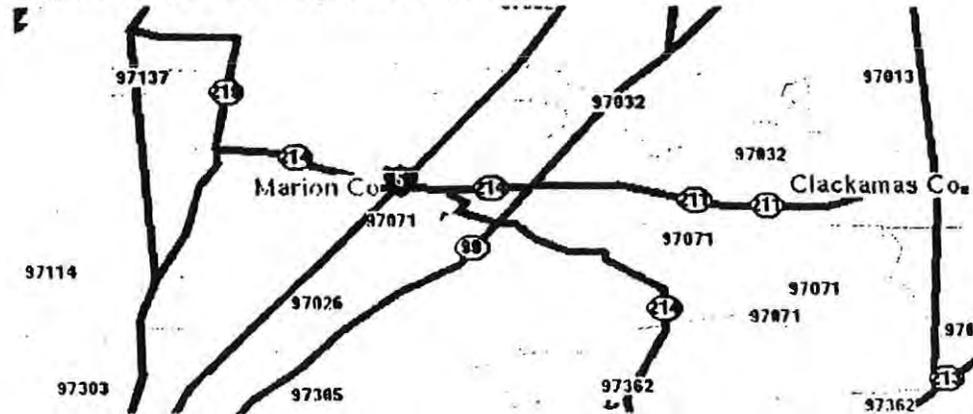
Even with sweeping simplifying assumptions, a regional economic system is still a complex one that is difficult to model, much less to predict without the benefits of models, on the basis of intuition alone. Nonetheless, that is how the large majority of economic development policies get adopted. In light of that reality, the purpose of this section and the following figures is to

Claritas (a private purveyor of marketing and demographic data)

- Interviews with realtors, property managers, and economic development specialists to document the land and location needs of target industries

Several data sources in this report, including ES-202 data from the Oregon Employment Department and demographic data from Claritas, are for the 97071 zip code area, which includes Woodburn and the surrounding rural area that gets mail with a Woodburn address. Figure 1-1 shows that the 97071 zip code area extends east into Clackamas County, west almost to the Willamette River, and north and south of Woodburn's city limits, but does not include Gervais (which is in the 97026 zip code area).

Figure 1-1. 97071 zip code area



Source: ESRI Inc. <http://mapserver2.esri.com/adol/work/maps/greenmap26129.gif>

This report frequently uses the terms *sector* and *industry* when referring to data and economic conditions. Sectors are groups of industries, as defined by the Standard Industrial Classification (SIC) system. For example, the Lumber & Wood Products *industry* is part of the Manufacturing *sector*. Sectors (in bold) and selected industries are illustrated in Figure 1-2.

Figure 1-2. Sectors and selected industries

Agricultural Services, Forestry, & Fisheries	Transportation, Utilities, & Communication
Mining	Wholesale Trade
Construction	Retail Trade
Manufacturing	Food Stores
Food Processing	Eating & Drinking Places
Lumber & Wood Products	Finance, Insurance, and Real Estate (F.I.R.E.)
Paper & Allied Products	Services
Primary Metal	Business Services
Industrial Machinery	Health Services
Electrical & Electronic Equipment	Government
Transportation Equipment	

While this study addresses issues of buildable land and housing in the context of economic development, it is neither a buildable lands study nor a

BACKGROUND

This report is part of a project to improve the chances that Woodburn will get the type and quality of economic development its citizens desire by describing (1) what kind of development has happened, is likely, and is possible; and (2) existing policies and future policy options. By describing the economic information about those issues, the project also allows the City to meet requirements of the Land Conservation and Development Commission regarding economic development planning (Goal 9).

The project is divided into two phases, each ending in a report. This report, the *Economic Opportunity Analysis*, is the product for the first phase, which focuses on describing past economic conditions, and likely and possible economic futures. It provides the base of information for a more detailed discussion of policy and implementation that will occur in the second phase, which will end with a second report: *Development Strategies*.

METHODS

The data and methods used in this report derive from three related types of requirements: requirements of state policy, requirements of the scope of work for this project, and standards for sound policy analysis. We began work by reviewing Oregon Statewide Planning Goal 9 and the administrative rule that implements Goal 9 (OAR 660-009) to make sure the required elements of a Goal 9 analysis are addressed in this report.

The theory underlying the analytical techniques used in this report is explained in Chapter 2. The methods used in the economic analysis are explained in more detail in Chapters 3, 4, and 5. In general, the methods include:

- Review of the literature on economic development
- Review of local policies regarding economic development and buildable land, including the:
 - *City of Woodburn Comprehensive Plan* (as amended October 1999)
 - *Downtown Development Plan*
 - *Woodburn Buildable Lands and Urbanization Project* (2000)
 - *Woodburn Transportation System Plan* (1996)
 - *Highway 214 Alternatives Study* (1999)
 - *I-5/Highway 214 Interchange Refinement Plan Study* (2000)
- Use of existing data sources for socioeconomic and demographic information, including the US Census, the employment data from the

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**Woodburn Economic
Opportunities Analysis
Phase I Report**

Prepared for

City of Woodburn

by

ECONorthwest

99 W. Tenth, Suite 400
Eugene, OR 97401
(541) 687-0051

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4-A

**WOODBURN ECONOMIC
OPPORTUNITIES ANALYSIS**

... the Oregon Employment Department. A review of these records allows a more detailed description of the large employment industries:

- Over half of the Lumber & Wood Products employment in the Woodburn area is in two firms, Fleetwood Homes and Silvercrest, that manufacture mobile homes.
- Most of the employment in Food Stores is with Winco Foods, and most of these employees are probably engaged in warehousing and distribution rather than in operating a grocery store. Most of the remaining employment in this industry is in three grocery/convenience stores with 50-100 employees.
- About 70% of Local Government employment is in education.
- Most of the employment in Food Processing is in firms that process frozen fruits and vegetables.*
- Employment in Crop Production is in a large number of small farms growing hops, berries, vegetables, bulbs, and nursery stock. The only employers in Crop Production with over 100 employees are in the Nursery Products industry.
- Eating & Drinking Place employment is spread among 35 employers with an average of 15 employees; none of these employers have over 50 employees.

Total covered employment in the Woodburn area grew from 5,552 in 1990 to 8,714 in 1999, an increase of 3,162 or 57%. Table 2-3 shows employment growth in the Woodburn area by sector and industry between 1990 and 1999. Employment growth was led by Food Stores (which added 606 jobs), Local Government (370), Agricultural Services (333), Lumber & Wood Products (246), and General Merchandise stores (235). Together these industries added 1,790 jobs or 57% of covered employment growth in the Woodburn area.

Several industries had percentage growth rates far exceeding the 57% average growth rate for the Woodburn area in the 1990-1999 period. These industries include Social Services (which grew by 671%), Agricultural Services (476%), General Merchandise stores (326%), Apparel (281%), Food Stores (221%), and both Durable and Nondurable Wholesale Trade (181-198%). Of these industries, all but Apparel stores and Nondurable Wholesale Trade added more than 100 jobs over the 1990-1999 period.

* AgriFrozen foods announced the closure of their Woodburn plant in January 2001. Vegetable processing will continue through April 2001 and some administrative jobs will last through June 2001. The closing of this plant will lay off 440 year-round workers. AgriFrozen will also close plants in Walla Walla and Grandview, Washington.

The closure of these plants is indicative of trends in the food processing industry, which include overproduction, consolidation of customers (grocery stores and food service suppliers), a strong dollar that makes US goods relatively more expensive for foreign purchasers, and competition from low-cost markets. Given these trends, it is unlikely that another firm will reopen the Woodburn plant or that other major food processors will locate in the Woodburn area in the near future.

fewer than 50 jobs in the 1990-1999 period. Industries that lost jobs over this period include Forestry (-54), Building Materials stores (-16), and Heavy Construction (-10).

Table 2-2. Covered employment and payroll in the 97071 zip code area, 1990 and 1999

Sector / Industry	SIC 2	1990			1999		
		Units	Emp	Payroll	Units	Emp	Payroll
Agriculture, Forestry, Fishing		69	949	\$13,468,738	67	1,321	\$23,372,828
Agricultural Production - Crops	01	36	678	\$9,198,086	35	775	\$15,397,605
Agricultural Services	07	14	70	\$1,010,654	17	403	\$4,859,483
Forestry	08	17	90	\$844,724	4	38	\$508,995
Mining		0	0	\$0	0	0	\$0
Construction		68	203	\$4,894,530	88	383	\$11,098,132
General Building Contractors	15	20	63	\$1,979,043	28	172	\$5,006,499
Heavy Construction	16	3	23	\$481,216	3	13	\$488,973
Special Trade Contractors	17	32	117	\$2,434,271	57	198	\$5,621,660
Manufacturing		35	1,734	\$34,467,820	36	2,113	\$66,636,160
Food & Kindred Products	20	5	893	\$12,012,491	7	776	\$18,147,293
Lumber & Wood Products	24	12	767	\$15,669,328	11	1,013	\$25,990,873
Printing & Publishing	27	7	32	\$508,198	4	27	\$829,528
Industrial Machinery & Equipment	35	3	79	\$2,115,220	3	129	\$4,181,930
Transportation & Utilities		22	179	\$4,071,068	24	288	\$8,798,998
Trucking & Warehousing	42	12	64	\$1,451,518	12	123	\$3,881,292
Communications	48	3	16	\$272,567	5	23	\$697,287
Wholesale Trade		20	102	\$2,229,820	22	294	\$8,398,088
Durable Goods	50	10	59	\$1,328,499	10	168	\$4,949,320
Nondurable Goods	51	10	43	\$901,321	12	128	\$3,448,768
Retail Trade		109	1,166	\$15,782,983	148	2,340	\$64,993,658
Building Materials	52	12	160	\$4,188,413	11	144	\$4,234,232
General Merchandise	53	2	72	\$842,788	5	307	\$5,062,822
Food Stores	54	18	274	\$3,839,548	17	880	\$27,848,473
Automotive Dealers & Service	55	22	195	\$3,448,543	19	274	\$8,844,059
Apparel	56	8	18	\$171,914	17	61	\$828,853
Furniture	57	8	16	\$248,322	14	42	\$723,058
Eating & Drinking	58	25	386	\$2,722,883	37	548	\$6,353,271
Miscellaneous Retail	59	16	47	\$622,572	26	84	\$1,298,889
Finance, Insurance, & Real Estate		28	149	\$3,228,183	63	223	\$5,784,001
Depository Institutions	60	4	73	\$2,279,980	14	76	\$2,472,876
Insurance Agents	64	9	24	\$462,612	9	24	\$673,383
Real Estate	65	11	50	\$467,258	25	111	\$1,910,099
Services		128	597	\$7,480,189	157	908	\$16,828,274
Hotels & Lodging Places	70	3	33	\$251,334	6	58	\$647,898
Personal Services	72	12	51	\$812,328	11	49	\$979,574
Business Services	73	10	39	\$510,182	16	88	\$1,146,371
Auto Repair & Services	75	9	58	\$918,198	13	59	\$1,814,526
Miscellaneous Repair	78	4	5	\$82,788	7	7	\$173,212
Amusement & Recreation	79	4	37	\$279,751	8	65	\$714,822
Health Services	80	29	218	\$2,965,182	26	212	\$4,777,740
Legal Services	81	5	15	\$293,841	9	18	\$427,068
Educational Services	82	2	23	\$232,099	4	29	\$477,842
Social Services	83	13	24	\$288,748	14	185	\$3,495,529
Membership Organizations	86	19	66	\$554,415	23	87	\$1,190,291
Engineering & Management	87	10	23	\$418,003	11	20	\$845,501
Private Households	88	4	5	\$41,107	6	3	\$105,885
Nonclassifiable	99	10	2	\$86,959	5	5	\$77,252
Government		4	471	\$9,803,993	8	842	\$20,915,041
Local		3	471	\$9,802,259	4	841	\$20,889,365
Total Covered Employment		478	5,552	\$95,480,258	593	8,714	\$208,578,427

Source: Oregon Employment Department. Confidential ES-202 Employment Data provided to ECONorthwest. Notes: Woodburn area employment summarized by ECONorthwest; Covered employment does not include most farm employment, thus the table underestimates total employment.

Table 2-3. Covered employment growth and average payroll per employee in the 97071 zip code area

Sector / Industry	Emp Growth		Pay/Emp 88
	1990-1999		
Agriculture, Forestry, Fishing	372	39%	\$17,693
Agricultural Production - Crops	97	14%	\$19,888
Agricultural Services	333	476%	\$12,058
Forestry	-54	-60%	\$14,139
Mining	0	0%	n/a
Construction	180	89%	\$28,869
General Building Contractors	109	173%	\$29,108
Heavy Construction	-10	-43%	\$35,921
Special Trade Contractors	81	69%	\$28,392
Manufacturing	379	22%	\$26,330
Food & Kindred Products	83	12%	\$23,388
Lumber & Wood Products	246	32%	\$25,857
Printing & Publishing	-5	-16%	\$23,316
Industrial Machinery & Equipment	50	83%	\$32,418
Transportation & Utilities	109	61%	\$30,558
Trucking & Warehousing	59	92%	\$31,555
Communications	7	44%	\$30,317
Wholesale Trade	192	188%	\$28,558
Durable Goods	107	181%	\$29,815
Nondurable Goods	85	198%	\$26,928
Retail Trade	1,174	101%	\$23,502
Building Materials	-16	-10%	\$29,404
General Merchandise	235	328%	\$16,491
Food Stores	606	221%	\$31,646
Automotive Dealers & Service	79	41%	\$31,548
Apparel	45	281%	\$13,588
Furniture	26	163%	\$17,216
Eating & Drinking	162	42%	\$11,594
Miscellaneous Retail	37	79%	\$15,463
Finance, Insurance, & Real Estate	74	50%	\$25,848
Depository Institutions	3	4%	\$32,538
Insurance Agents	0	0%	\$28,058
Real Estate	61	122%	\$17,208
Services	308	52%	\$18,261
Hotels & Lodging Places	25	76%	\$11,171
Personal Services	-2	-4%	\$19,991
Business Services	49	126%	\$13,027
Auto Repair & Services	3	5%	\$27,365
Miscellaneous Repair	2	40%	\$24,745
Amusement & Recreation	28	76%	\$10,994
Health Services	-4	-2%	\$22,537
Legal Services	1	7%	\$26,692
Educational Services	6	26%	\$16,477
Social Services	161	671%	\$18,895
Membership Organizations	21	32%	\$13,682
Engineering & Management	-3	-13%	\$32,275
Private Households	-2	-40%	\$35,295
Nonclassifiable	3	150%	\$15,450
Government	371	79%	\$24,840
Local	370	79%	\$24,815
Total Employment	3,162	57%	\$23,592

Source: Oregon Employment Department. Confidential ES-202
Employment Data provided to ECONorthwest. Growth and pay per
employee calculated by ECONorthwest.

CONTEXT FOR ECONOMIC GROWTH IN WOODBURN

Economic development in Woodburn over the next twenty years will occur in the context of long-term national trends. The most important of these trends includes:

- Continued westward migration of the U.S. population, and the increasing role of amenities and other non-wage factors as determinants of the location decisions of households and firms.
- Growth in Pacific Rim trade.
- The growing importance of education as a determinant of wages and household income.
- The decline of employment in resource-intensive industries and the increase in employment in service-oriented and high-tech manufacturing sectors of the economy.
- The increasing integration of non-metropolitan and metropolitan areas.

Short-term national trends will also affect economic growth in the region, but these trends are difficult to predict. At times these trends may run counter to the long-term trends described above. A recent example is the downturn in Asian economies, which caused Oregon's exports to Pacific Rim countries to decline. This in turn led to layoffs in the Lumber & Wood Products and high-tech Manufacturing industries. The Asian economies, however, have substantially recovered, and Pacific Rim trade will continue to play a significant role in the national, state, and local economy. This report takes a long-run perspective on the Woodburn economy (as the Goal 9 requirements intend) and does not attempt to predict short-run business cycles.

Economic development in Woodburn will also be affected by long-run economic trends in Oregon and the Willamette Valley. The

employment growth in Oregon, the Portland area, Marion County, and Woodburn. This is followed by the economic outlook for Oregon. Recent economic trends and the economic outlook for Oregon form a primary basis for our expectations of future trends and development patterns in Woodburn. We will use these trends to develop a preliminary forecast of growth in Woodburn that will reflect likely growth in the absence of public policy to affect economic development. Opportunities and constraints affecting future economic development in Woodburn, potential economic development policies, and the outlook for growth in Woodburn are addressed later in this report.

ECONOMIC TRENDS IN OREGON

POPULATION

Oregon's economy is generally more cyclical than the nation's, growing faster than the national economy during expansions and contracting more rapidly than the nation during recessions. This pattern is shown in Table 2-4, which presents data on population in the U.S., Oregon, and selected areas in Oregon over the 1970–2000 period. Table 2-4 shows Oregon grew more rapidly than the U.S. in the 1970s and 1990s (which were generally expansionary periods) but lagged behind the U.S. in the 1980s. Oregon's slow growth in the 1980s was primarily due to the nationwide recession early in the decade. Oregon's population growth regained momentum in 1987, growing at annual rates of 1.4%–2.9% between 1988 and 1996. The Willamette Valley received over 70% of the state's population growth during this period.

Population growth for Oregon and its regions slowed in 1997, to 1.1% statewide, the slowest rate since 1987. Net migration into Oregon, which is the largest component of population growth, dropped from 35,000 in 1996 to 18,000 in 1999. The reasons most often cited for this slowing of population growth are the recovery of the California economy, the combination of a high cost of living (especially housing) and low wages in Oregon, and a perceived decline in the quality of Oregon's schools.

The Willamette Valley has always been the center of growth in Oregon. The population growth rate in the Willamette Valley has exceeded that of the state in every decade except during the 1970s. Almost 70% of Oregon's population is located in the Willamette Valley, which contains only 14% of the state's land area. Most of the Willamette Valley's population is concentrated in the metropolitan areas of Portland, Salem, and Eugene.

Woodburn and Marion County have grown faster than other areas in Table 2-4 throughout the 1970–2000 period. Marion County's share of Oregon's population has increased from 7.2% in 1970 to 8.3% in 2000.

* The Willamette Valley is composed of Benton, Clackamas, Lane, Linn, Marion, Multnomah, Polk, Washington, and Yamhill counties.

...share of Marion County's population has increased from 5.0% in 1970 to 7.1% in 2000.

Table 2-4. Population in the U.S., Oregon, Willamette Valley, Portland Area, Marion County, and Woodburn, 1970–2000

Area	1970	1980	1990	2000	Avg. Ann. Growth Rate		
					70-80	80-90	90-00
U.S.	203,211,928	226,545,805	248,709,873	281,421,906	1.1%	0.9%	1.2%
Oregon	2,091,385	2,633,156	2,842,321	3,421,399	2.3%	0.8%	1.9%
Willamette Valley	1,446,594	1,788,577	1,962,816	2,380,608	2.1%	0.9%	1.9%
North Valley	1,107,546	1,355,845	1,517,866	1,876,425	2.0%	1.1%	2.1%
Marion County	151,309	204,692	226,483	284,834	3.1%	1.1%	2.2%
Woodburn	7,495	11,196	13,404	20,100	4.1%	1.8%	4.1%

Sources: U.S. Census and Center for Population Research and Census, Portland State University. Average annual growth rates calculated by ECONorthwest.

Notes: The Willamette Valley consists of Benton, Clackamas, Lane, Linn, Marion, Multnomah, Polk, Washington, and Yamhill Counties. The North Valley consists of Clackamas, Marion, Multnomah, Polk, Washington, and Yamhill Counties.

Between 1990 and 1999, almost 70% of Oregon's total population growth was from net migration (in-migration minus out-migration), with the remaining 30% from natural increase (births minus deaths). Migrants to Oregon tend to have the same characteristics as existing residents, with some differences—recent in-migrants to Oregon are, on average, younger and more educated, and are more likely to hold professional or managerial jobs, compared to Oregon's existing population. The race and ethnicity of in-migrants generally mirrors Oregon's established pattern, with one exception: Hispanics make up more than 7% of in-migrants but only 3% of the state's population. The number-one reason cited by in-migrants for coming to Oregon was family or friends, followed by quality of life and employment.⁴

Net migration accounted for about 63% of population growth in Marion County in the 1990–1999 period. A review of the *1999 Oregon In-migration Study* shows the characteristics of migrants to Oregon that located in Region 3 (Marion, Polk, and Yamhill Counties) vary from the characteristics for migrants to all of Oregon in several ways:

- A larger share of migrants to Region 3 came moved to Oregon for a job (47.4% in Region 3 vs. 36.3% in Oregon) or family and friends (51.4% vs. 45.1%). Fewer migrants to Region 3 moved to Oregon for quality of life (36.7% vs. 43.8%).
- Of migrants who worked before moving to Oregon, a larger share of those who located in Region 3 worked in Construction/Maintenance (13.4% vs. 5.9%) and Clerical / Administrative Support (21.0% vs. 13.7%). A smaller share of migrants to Region 3 worked in Professional Technical occupations (17.9% vs. 34.9%) before moving to Oregon.

⁴ State of Oregon, Employment Department. 1999. *1999 Oregon In-migration Study*.

A larger share of migrants to Region 3 had annual household incomes less than \$15,000 before moving to Oregon (29.5% vs. 22.9%) and a smaller share of migrants to Region 3 had annual household incomes greater than \$55,000 before moving to Oregon (20.6% vs. 28.2%).

- A larger share of migrants in Region 3 are doing different work than they were before they moved to Oregon (46.8% vs. 39.2%). Of migrants doing different work, a larger share are now in Professional/Technical positions (40.9% vs. 22.5%).
- The current hourly wage of migrants in Region 3 is \$13.50, compared to \$15.19 in all of Oregon.

Data on the number and characteristics of migrants to Woodburn are not available.

PERSONAL INCOME

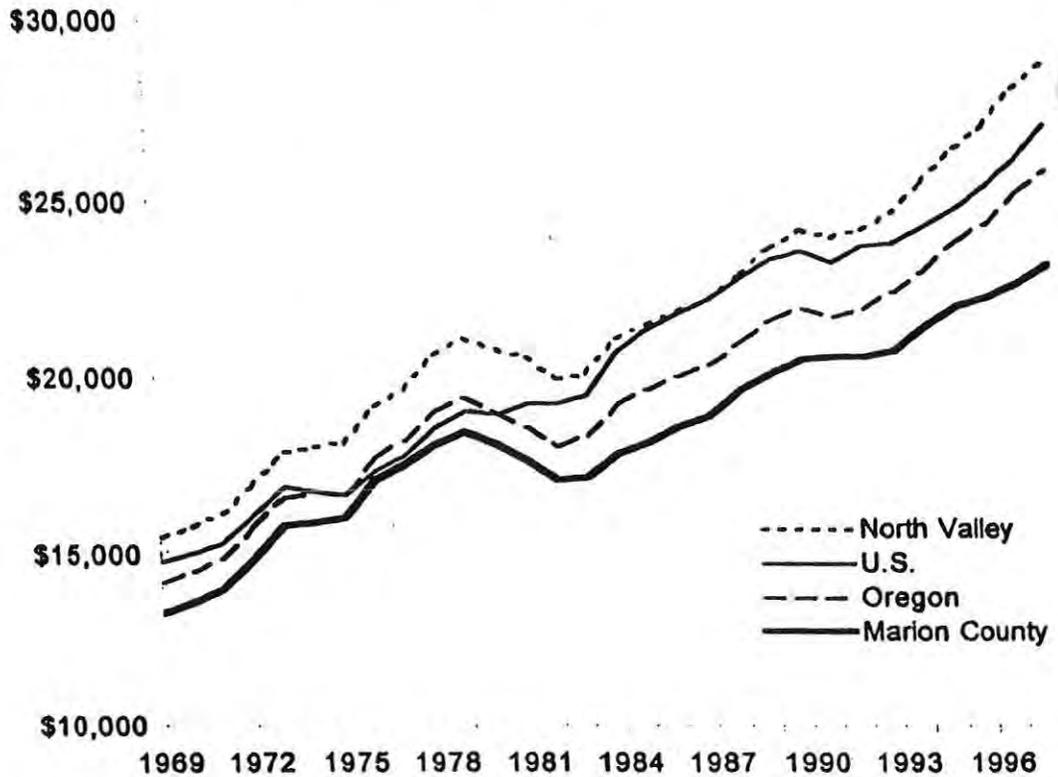
Figure 2-1 shows the level of per capita income in the U.S., Oregon, the North Valley region, and Marion County over the 1969–1998 period.

Before the early-80s recession, per capita income in Oregon was close to the U.S. level, ranging from 96%–102% of the U.S. average between 1969 and 1981. Oregon's per capita income began to fall in 1980, dropping as low as 92% of the U.S. average during 1985–1988 before climbing back to 96% of the U.S. average by 1995. Per capita income in the North Valley region, which includes Portland and its suburbs, has exceeded the U.S. and Oregon average over the 1969–1998 period, ranging from 100%–111% of the U.S. average over this period.

Per capita income in Marion County has been below the U.S. and Oregon average throughout the 1969–1998 period shown in Figure 2-1. Marion County's per capita income peaked at 98% the U.S. average in 1976 but declined, along with the Oregon average, in the recession of the early 1980s. Per capita income in Marion County fell to 85% of the U.S. average by 1985 and has not exceeded 89% of the U.S. average since that time.

These differences of a few percentage points may seem insignificant: they are not. They indicate that average incomes in Marion County are below those of most other counties in Oregon, and suggest Woodburn residents have a different occupational composition, lower wages, higher unemployment rates, or a larger percentage of non-workers (e.g., children and retired).

Figure 2-1. Per capita income in U.S., Oregon, the North Valley region, and Marion County, 1969-1998 (in 1998 dollars)



Source: U.S. Department of Commerce, Bureau of Economic Analysis. 2000. *Regional Economic Information System (REIS)*. RCN-0250.

EMPLOYMENT

Employment growth has generally followed the trend of population growth, but employment growth varies more because employment is more closely tied to economic conditions. As for population, over 70% of Oregon's employment is located in the Willamette Valley. The Valley also experienced the largest loss of employment in the recession of the early 1980s.

The composition of Oregon's employment has changed since 1969. Employment growth has been led by the Finance, Insurance and Real Estate (F.I.R.E.) and Services sectors. The share of total employment in these sectors increased from 25% to 35% between 1969 and 1995. Slow growth in Manufacturing caused its share of total employment to decline from 20% to 13% over this period, while other sectors grew at rates close to the statewide average.

In the last 20 years Oregon's economy has made a transition away from reliance on traditional resource-extraction industries, with the growth of high-tech manufacturing, services, and trade. A significant indicator of this transition is the decline of employment in the Lumber & Wood Products industry and the concurrent growth of employment in high-technology

Instruments). Employment in Lumber & Wood Products has declined from its 1979 peak, while employment in high-tech industries surpassed that in Lumber & Wood Products 1995.

While this transition has increased the diversity of employment within Oregon, it has not significantly improved Oregon's diversity relative to the national economy. Oregon's relative diversity has historically ranked low among states, primarily due to dependence on the timber industry. Oregon ranked 35th in diversity (1st = most diversified) based on Gross State Product data for 1963–1986, and 32nd based on data for the 1977–1996 period. While Oregon's economy has diversified, it is still heavily dependent on several industries—Oregon's diversity ranking remains low due to disproportionately large timber, high tech, and agricultural industries. Relatively low economic diversity increases the risk of economic volatility as measured by changes in output or employment. For example, while Oregon has enjoyed the upside of increasing concentration in high-tech manufacturing, the 1999 Asian banking crisis has indicated the risk of Oregon's reliance on the high-tech manufacturing industry.*

The changing composition of employment has not affected all regions of Oregon evenly. Growth in high-tech and Services employment has been concentrated in urban areas of the Willamette Valley and Southern Oregon, particularly in Washington, Benton, and Josephine Counties. The brunt of the decline in Lumber & Wood Products employment was felt in rural Oregon, where these jobs represented a larger share of total employment and an even larger share of high-paying jobs than in urban areas.

PUBLIC POLICY

Changing economic conditions in Oregon have not only been affected by national and international trends, but also by government action in Oregon. State policy made a concerted effort to attract industries with tax policy (e.g., no unitary tax, which would tax world-wide corporate income of businesses operating in Oregon), changes in corporation codes, reforms to reduce the costs of workers' compensation, investments in infrastructure, and other incentives (e.g., enterprise zones and the Strategic Investment Program, which attempts to stimulate capital-intensive industries through property tax abatement). The State has encouraged international trade and investments with missions and offices in Japan, Taiwan, and other Pacific Rim countries. State policy on land use and environmental quality aim at preserving the natural and cultural amenities that make Oregon attractive to its current and potential residents and businesses—but their effects, however, is not unambiguous, since they may also raise taxes, fees, and land development costs.

* LeBre, Jon. 1999. "Diversification and the Oregon Economy: An Update." *Oregon Labor Trends*. February.

OUTLOOK FOR GROWTH IN OREGON

The State's long-term forecast of population and employment in Oregon, the Portland area, and Marion County is shown in Table 2-5 (a long-term forecast for cities is not available). Table 2-5 shows population and employment in Marion County is expected to grow at a faster annual average rate than in the Portland area or in Oregon as a whole over the twenty-year forecast period. Marion County is expected to add over 92,000 people and 36,000 jobs between 2000 and 2020.

Table 2-5. Population and employment forecast for Oregon, the Portland area, and Marion County, 2000–2020

	2000	2010	2020	AAGR 2000-2020
Population				
Oregon	3,406,000	3,857,000	4,326,000	1.2%
North Valley	1,850,740	2,110,655	2,387,993	1.3%
Marion County	285,975	331,025	378,208	1.4%
Employment				
Oregon	1,601,718	1,814,276	1,947,702	1.0%
North Valley	981,332	1,112,609	1,198,658	1.0%
Marion County	131,622	153,015	167,821	1.2%

Source: State of Oregon, Office of Economic Analysis. 1997. Long-Term Population and Employment Forecasts for Oregon. Salem: Department of Administrative Services. January.

Note: Employment is non-agricultural wage and salary employment only. The North Valley region consists of Clackamas, Marion, Multnomah, Polk, Washington, and Yamhill Counties.

Table 2-6 shows the Oregon Employment Department's ten-year forecast for employment by industry for the Portland Area (Clackamas, Clark, Columbia, Multnomah, and Washington Counties) and Workforce Region 3 (Marion, Polk, and Yamhill Counties). The level of industry detail in this forecast varies by area, with larger areas having more detail. The data in Table 2-6 has been summarized at the level of detail available for Region 3, because this level of detail is available for all areas.

Table 2-6 shows that employment growth in Region 3, which includes Woodburn, should be led by the Services, Retail Trade, and Government sectors, which together are expected to add 22,300 jobs or 77% of total employment growth in the region. High-growth industries within these sectors include Other Services, Local Government, Business Services, Health Services, and Eating & Drinking Places. Manufacturing is expected to add 2,300 jobs or 8% of total employment growth in Region 3, primarily in Other Durable Goods industries.

Employment growth in the Portland area is expected to be led by the Services, Retail Trade, and Manufacturing sectors, which together will add 134,700 jobs or 70% of total employment growth in the area. High-growth industries in these sectors include Business Services (which is projected to add 32,600 jobs), Eating & Drinking Places (13,300), Health Services (12,500), Social Services (10,100), and Electronic & Other Electrical Equipment (9,000). Manufacturing employment growth in the Portland area

is expected to increase by 12.2% in the ten-year projection period, compared to 9.5% in Region 3.

Table 2-6. Forecast nonfarm payroll employment growth in the Portland Area and Workforce Region 3, 1998–2008

Sector / Industry	Portland Area		Region 3		Portland + Region 3	
	Growth	% Change	Growth	% Change	Growth	% Change
Mining & Quarrying	300	27.3%	100	25.0%	400	26.7%
Construction	9,000	16.7%	1,400	14.7%	10,400	16.4%
Manufacturing	18,300	12.2%	2,300	9.5%	20,600	11.8%
Durable Goods	16,900	15.4%	1,800	12.6%	18,700	15.1%
Lumber & Wood Products	-500	-5.7%	100	2.0%	-400	-2.9%
Other Durable Goods	17,400	17.2%	1,700	18.5%	19,100	17.5%
Nondurable Goods	1,400	3.5%	500	5.1%	1,900	3.8%
Food & Kindred Products	-400	-4.1%	100	1.6%	-300	-1.9%
Other Nondurable Goods	1,800	5.9%	400	10.5%	2,200	6.4%
Trans., Comm., & Utilities	9,500	17.8%	900	19.1%	10,400	17.9%
Transportation	8,100	21.5%	700	20.6%	8,800	21.4%
Communications & Utilities	1,400	8.9%	200	15.4%	1,600	9.4%
Wholesale Trade	13,800	19.7%	1,100	21.2%	14,900	19.8%
Retail Trade	31,600	19.5%	5,700	19.5%	37,300	19.5%
General Merchandise Stores	3,800	19.5%	1,100	27.5%	4,900	20.9%
Food Stores	3,400	15.0%	800	16.7%	4,200	15.3%
Eating & Drinking Places	13,300	22.0%	2,100	19.4%	15,400	21.6%
Other Retail Trade	11,100	18.6%	1,700	17.5%	12,800	18.4%
Fin., Ins., and Real Estate Services	9,800	14.7%	1,000	12.8%	10,800	14.5%
Business Services	32,600	51.0%	2,900	38.2%	35,500	49.7%
Health Services	12,500	20.3%	2,200	18.8%	14,700	20.1%
Other Services	39,700	29.9%	6,600	33.2%	46,300	30.3%
Government	15,700	13.6%	4,900	11.8%	20,600	13.1%
Federal Government	300	1.6%	100	4.5%	400	2.0%
State Government	1,700	13.5%	1,600	8.3%	3,300	10.4%
Local Government	13,700	16.2%	3,200	15.8%	16,900	16.1%
Total	192,800	20.7%	29,100	18.0%	221,900	20.3%

Source: State of Oregon Employment Department, Workforce Analysis, 1999. Employment Projections by Industry 1998–2008.

Portland Area projections summarized by sector/industry by ECONorthwest.

Notes: the Portland area consists of Clackamas, Columbia, Multnomah, Washington, Yamhill, and Clark Counties. Workforce Region 3 consists of Marion, Polk, and Yamhill Counties.

Table 2-6 shows the employment growth rate in Region 3 is expected to lag behind other areas, with total employment growing by 18% compared to 18.5% in Oregon and 20.7% in the Portland area. The employment growth rate in Region 3 exceeds that of the Portland area for only Transportation, Communications, & Utilities and Wholesale Trade sectors.

PREVIOUS FORECASTS OF ECONOMIC GROWTH IN WOODBURN

The county coordinated 2020 population forecast for Woodburn is 26,290. This forecast is based on a population allocation that was completed prior to the 2000 Census count.

Portland State University published a July 1, 2000 population estimate of 17,840 for the City of Woodburn. The 2000 Census count placed the City's population at 20,100 as of April 1, 2000; a figure 2,230 persons higher than the PSU estimate.

The differences between the two population forecasts present somewhat of a dilemma for Woodburn. If one accepts the 2020 population forecast of 26,290, and the 2000 Census count of 20,100, Woodburn has already consumed a significant portion of its population forecast. This assertion, however, has problems. Between 1990 and 2000, Woodburn grew by nearly 7,000 persons, or at an annual rate of 4.1%. The population forecast based on the PSU 2000 population of 17,840 the coordinated forecast translates into an average annual growth rate of 2.0% over the 2000-2020 period. This rate is significantly lower than the 1990-2000 trend. If one accepts the 2000 Census, the average annual growth rate decreases to 1.4%.

Given historical trends, the City's population forecast may prove to underestimate future growth in Woodburn.

To our knowledge a coordinated forecast of employment in Woodburn has not been developed. To estimate future travel demand, the *Woodburn Transportation System Plan* (June 1996) estimated employment growth of 3,221 over the 1991-2020 period. With a 1991 employment level of 5,045 this translates into a 2020 employment level of 8,266 or an average annual growth rate of 1.7%. This rate exceeds the forecast annual average employment growth rate in Marion County (1.2%), the North Valley region (1.0%) and Oregon (1.0%) shown in Table 2-5.

Factors Affecting Future Economic Development in Woodburn

Chapter 3

The preliminary growth forecast in the previous section implicitly assumes that the economic factors that influenced growth in Woodburn in the past will behave in a similar way in the future. However, that forecast represents only one possible future and actual growth could be more or less depending on national and regional economic conditions and the economic attributes of Woodburn. National and regional economic conditions were addressed in Chapter 2, and there is little that Woodburn can do to affect these conditions. Woodburn, however, can influence local attributes that affect economic development. This chapter reviews local factors affecting economic development in Woodburn and the advantages, opportunities, disadvantages, and constraints these factors present. This review, and the target industry analysis that follows, will form the basis for developing economic development strategies for Woodburn.

WHAT IS COMPARATIVE ADVANTAGE?

Each economic region has different combinations of productive factors: land (and natural resources), labor (including technological expertise), and capital (investments in infrastructure, technology, and public services). While all areas have these factors to some degree, the mix and condition of these factors vary. The mix and condition of productive factors may allow firms in a region to produce goods and services more cheaply than firms in other regions.

By affecting the cost of production, comparative advantages affect the pattern of economic development in a region relative to other regions. Goal 9 recognizes this by requiring plans to include an analysis of the relative supply and cost of factors of production. An analysis of comparative advantage depends on the geographic areas being compared—this chapter focuses on the comparative advantages of Woodburn relative to the Northern Willamette Valley.

LOCATION

Woodburn's location on I-5 and proximity to the Portland and Salem metropolitan areas is the primary factor that will affect its future development. Being located on I-5 near Portland and Salem creates several advantages and opportunities. Retail businesses located along the I-5 corridor may benefit from increased visibility. The Factory Outlet Mall and Wal-Mart are examples of businesses that benefit from visibility from I-5. All businesses in Woodburn may benefit from increased accessibility to potential customers, suppliers, and employees. Proximity to I-5 and the Portland and Salem areas may also benefit residents of Woodburn by providing convenient

access to jobs, shopping, education, cultural events, and other urban amenities.

Both the Portland and Salem metropolitan areas are expected to grow over the twenty-year planning period. Population and employment growth in Portland and Salem will also create opportunities for economic development in Woodburn. Employment growth in these urban areas will increase the job opportunities for residents of Woodburn. As these urban areas become physically larger and commute times increase, Woodburn may become more attractive as a residential location for people who work in Portland or Salem. Urban growth may also make Woodburn a more attractive location for businesses who need to be near Portland or Salem.

BUILDABLE LAND

An analysis of buildable land was recently completed for the City of Woodburn.¹ This analysis included an inventory of vacant, partially vacant, and redevelopable land in Woodburn, an estimate of demand for buildable land, and potential policies that could affect land supply or demand. Table 3-1 summarizes the supply and demand conditions for buildable land in Woodburn over the 1999–2020 period.

Table 3-1. Buildable land supply and demand conditions in the Woodburn UGB, 1999–2020

Comprehensive Plan Designation	Supply	Demand	Surplus (Deficit)
Low-Density Residential	535.0	340.3	194.7
High-Density Residential	121.1	117.3	3.8
Commercial	146.0	146.0	0.0
Industrial	107.9	440.0	(332.1)
School Facilities (Public or Residential)	n/a	71.7	n/a
Total	910.0	1,115.3	(205.3)

Source: McKeever/Morris Inc., W&H Pacific, E.D. Hovee & Company, Gabriele Development Services, and Manda Beckett Design. 2000. *Woodburn Buildable Lands and Urbanization Project*. Final report issued February 7. Table 5.

Note: The Woodburn Buildable Lands and Urbanization Project findings had not been adopted by the City at the time this report was completed. The City had not adopted land use efficiency measures as required by ORS 197.296 at the time this report was completed.

Table 3-1 shows that Woodburn is expected to have an overall deficit of 205.3 acres over the 1999–2020 period. Estimates by comprehensive plan designation show a 194.7 acre surplus for low-density residential land and a 332.1 acre deficit for industrial land. Since the McKeever/Morris report was completed in 2000, additional development has occurred on industrial land in the northern parts of Woodburn. The development consumed about 34 acres off of NE front. This development increases the deficit of industrial land to 364 acres.

¹ McKeever/Morris Inc., W&H Pacific, E.D. Hovee & Company, Gabriele Development Services, and Manda Beckett Design. 2000. *Woodburn Buildable Lands and Urbanization Project*. Final report issued February 7.

The buildable lands analysis shows supply and demand for high-density residential and commercial land is evenly matched, but the report does not state whether the available land is in the right location to accommodate expected growth. The City does not have a separate plan designation for schools, so there is no land supply shown for the 71.1 acres needed for school construction over the 1999–2020 period. The buildable lands report states that low-density residential land will probably be used for schools.

The Recommended Alternative in the buildable lands analysis contains several suggested policy changes that could affect the supply of or demand for buildable land over the 1999–2020 period:⁴

- **Change specified parcels designated for Commercial, Low-Density Residential, and High-Density Residential to Mixed Use Campus.** This change would apply to three sites in the Woodburn UGB:
 - A 38.4 net acre site south of Wal-Mart, adjacent to I-5 and west of Evergreen Drive. This site is currently designated for commercial use.
 - A 22.5 net acre site located on the north side of Highway 211, abutting the MacLaren State Correctional Facility. This site is currently designated for commercial use.
 - An 11.6 net acre site in the southern portion of Woodburn adjacent to the Union Pacific railroad tracks on the west property line and Boones Ferry Road on the east property line. This site is currently designated for low-density residential use.

The Mixed Use Campus (MUC) designation would be a new plan designation in Woodburn, and is intended to create a "campus like" environment with industrial and commercial uses that are compatible with each other. Assuming that 50% of MUC land is developed with commercial uses and 50% is developed with industrial uses, this change would change the supply of buildable land by a decrease of 11.6 Low-Density Residential acres, a decrease of 24.6 Commercial acres, and an increase of 33.2 Industrial acres.

- **Increase density range and minimum density for low-density residential uses.** This change would increase the minimum lot size for single-family dwellings from 6,000 to 8,000 sq. ft. for residential land annexed into the city, retain the current 6,000 sq. ft. minimum for residential property currently within the city, allow a minimum lot size of 6,000 sq. ft. in planned unit developments, and allow duplexes outright on corner residential lots with a minimum lot size of 3,500 sq.

⁴ These changes are discussed as part of the Recommended Alternative on pages 10–27 of the *Woodburn Buildable Lands and Urbanization Project* report (McKeever/Morris Inc. et. al. 2000). The City had not adopted these changes at the time this report was completed.

ft. per unit. This change would result in higher-density residential development, effectively decreasing demand for low-density residential land by 8.9 acres.

- **Reduce off-street parking standards for retail development by changing the current minimum standard to a maximum standard.** This will increase the lot coverage of retail development, effectively reducing the demand for commercial land by 17.5 acres.
- **Allow accessory dwelling units in residential zones.** This change would allow accessory dwelling units in residential zones that are within the primary residential structure. Assuming 20 accessory units replace multi-family units effectively reduces the demand for high-density residential land by 1 acre.
- **Expand the UGB to offset the shortage of industrial land and to include all of the Tukwila residential development.** This action would add four areas to Woodburn's UGB to add 207.8 acres of industrial land and 28.7 acres of low-density residential land:
 - 97.5 net acres of industrial land located west of the Winco Foods property west of I-5.
 - 48.8 net acres of industrial land located northwest of the I-5 interchange.
 - 61.5 net acres of industrial land located adjacent to other industrial uses in the southeast corner of Woodburn.
 - 28.7 net acres of low-density residential land located adjacent to the northern city limit.

Other changes included in the Recommended Alternative would have a negligible affect on the supply or demand for buildable land, or have impacts that are too complex to estimate reliably. Table 3-2 summarizes the changes to the supply and demand of buildable land associated with the policy actions included in the Recommended Alternative of the buildable lands analysis. Table 3-2 shows that the adjustments included in the Recommended Alternative result in an overall surplus of 58.6 acres, rather than the 205.3-acre deficit shown in Table 3-1. Even with the adjustments included in the Recommended Alternative, Woodburn is estimated to have a 7.1-acre deficit of Commercial land and an 88.1-acre deficit of Industrial land. Demand for School Facilities (71.7 acres) is expected to be met by Low-Density Residential land, leaving a surplus of 149 acres.

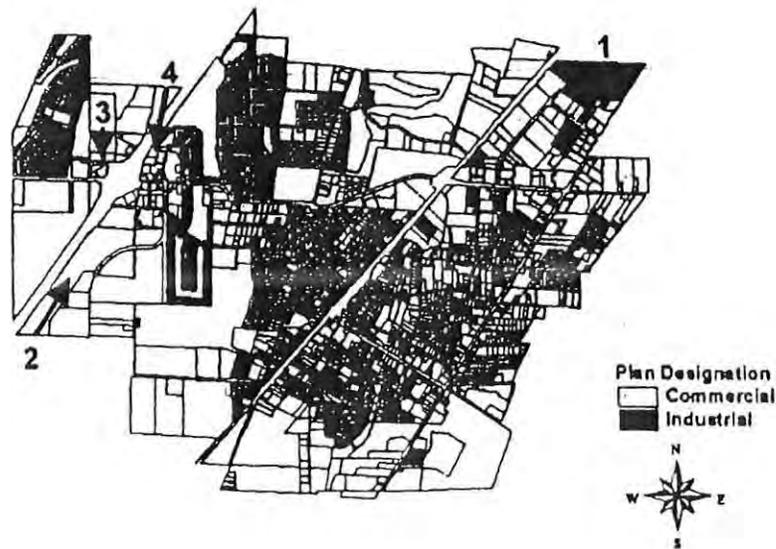
	Comprehensive Plan Designation				School Facilities	Total
	Low-Density Residential	High-Density Residential	Commercial	Industrial		
Current Land Supply	535.0	121.1	146.0	107.9	n/a	910.0
Change designated use to MUC	(11.6)	0.0	(24.6)	36.2	0.0	0.0
Expand the UGB	28.7	0.0	0.0	207.8	0.0	236.5
Adjusted Land Supply	552.1	121.1	121.4	351.9	0.0	1,146.5
Estimated Land Demand	340.3	117.3	146.0	440.0	71.7	1,115.3
Increase residential density	(8.9)	0.0	0.0	0.0	0.0	(8.9)
Reduce off-street parking standards	0.0	0.0	(17.5)	0.0	0.0	(17.5)
Allow accessory dwelling units	0.0	(1.0)	0.0	0.0	0.0	(1.0)
Adjusted Land Demand	331.4	116.3	128.5	440.0	71.7	1,087.9
Total Land Surplus (Deficit)	220.7	4.8	(7.1)	(88.1)	(71.7)	58.6

Source: ECONorthwest, summarized from McKeever/Morris Inc., W&H Pacific, E.D. Hovee & Company, Gabriele Development Services, and Manda Beckett Design. 2000. *Woodburn Buildable Lands and Urbanization Project*. Final report issued February 7. Pages 10–27.

Note: The Woodburn Buildable Lands and Urbanization Project findings had not been adopted by the City at the time this report was completed. The City had not adopted land use efficiency measures as required by ORS 197.296 at the time this report was completed.

Figure 3-1 shows vacant and partially-vacant parcels in Woodburn's UGB. Analysis of the inventory of vacant and partially-vacant parcels over five net buildable acres shows that Woodburn has only two vacant and three partially-vacant commercial parcels, and only four vacant and four partially-vacant industrial parcels, that meet this criteria. Woodburn has only no fully vacant parcels and one partially-vacant industrial parcel larger than 10 net buildable acres. Net buildable acres for each vacant and partially-vacant parcel was calculated in the *Woodburn Buildable Lands and Urbanization Project* report, and equals gross acres minus areas identified as wetlands and land that will be needed for public facilities.

Figure 3-1. Vacant and partially-vacant commercial and industrial sites in Woodburn



Note: Numbers identify potential development sites where contiguous parcels total more than 5 buildable acres.

OAR 660-009-0015 (3) requires an inventory of commercial and industrial sites. The rule allows contiguous parcels of one to five areas to be inventoried together. We identified sites with contiguous vacant or partially-vacant tax lots that together totaled over five net buildable acres. We identified four sites that met this criteria in Woodburn: two industrial sites, and three commercial sites.

Table 3-3. Contiguous commercial and industrial sites of more than five acres

Location/Tax Lot	Status	Total Acres	Gross Buildable Acres
Industrial Sites			
Site 1: NE Front			
051W05D 01800	Vacant	7.1	7.1
051W04C 03100	Partially-Vacant	20.9	6.9
051W05D 03500	Partially-Vacant	30.1	6.2
Subtotal		58.1	20.1
Commercial Sites			
Site 3: SE of 214/I-5 Interchange			
052W13 00200	Vacant	43.0	43.0
052W14 00100	Vacant	21.1	21.1
Subtotal		64.0	64.0
Site 4: NE of 214/I-5 Interchange			
052W12B 00600	Vacant	2.33	1.86
052W12B 00601	Vacant	1.83	1.83
052W12B 01000	Vacant	1.76	1.76
052W12B 01101	Vacant	1.30	0.93
Subtotal		7.22	6.38
Site 5: NW of 214/I-5 Interchange			
052W12AC04301	Vacant	2.43	2.43
052W12AC04303	Vacant	2.10	2.10
052W12AC04302	Vacant	2.01	2.01
052W12AC05100	Vacant	0.37	0.37
Subtotal		6.91	6.91

Source: Woodburn Buildable Lands Inventory, McKeever-Morris; analysis by ECONorthwest

Part of the rationale for conducting such an analysis is that Woodburn does not have many large commercial and industrial parcels. This analysis identified locations tax lots might be assembled into larger sites that could accommodate larger developments. Figure 3-1 shows the location of vacant and partially-vacant commercial and industrial parcels, and identifies sites where contiguous vacant or partially-vacant parcels total five or more net buildable acres or more.

Table 3-3 summarizes data for the sites identified in Figure 3-1. Site 1 includes three tax lots designated for industrial use with 16.9 net buildable acres. The three tax lots listed in site one are all in separate ownership.

The largest commercial site is adjacent to Interstate 5 and contains 64 net buildable acres. The site consists of two tax lots with the same owner. This site is currently designated for commercial use but would be designated for Mixed Use Campus under the Recommended Alternative in the buildable lands analysis. Two smaller commercial sites exist: one northwest of the I-5/Hwy 214 interchange, and one northeast of the I-5/Hwy 214 interchange. These sites have 6.4–6.9 net buildable acres, and both sites have four tax lots with three different owners.

In addition to the sites shown in Figure 3-1, Table 3-3 shows Site 5, which has 21.2 net buildable acres located on Molalla Road NE, just south of the MacLaren State Correctional Facility. This site consists of four parcels, each with different owners. This site is currently designated for commercial use but would be designated for Mixed Use Campus under the Recommended Alternative in the buildable lands analysis.

Remaining buildable commercial and industrial sites in Woodburn's UGB are scattered in relatively small lots. In addition to commercial and industrial sites currently in Woodburn's buildable lands analysis, the Recommended Alternative of the buildable lands analysis would change the land use designation of a parcel from residential to Mixed Use Campus, and expand the UGB to add three industrial development sites to the UGB (the UGB expansion sites are included as Industrial in the buildable lands analysis but may be designated Mixed Use Campus). These sites are:

- 11.6 net buildable acres on a triangular-shaped parcel in the southern portion of Woodburn, with the Union Pacific railroad tracks on the west property line and Boones Ferry Road on the east property line. This site is currently designated for low-density residential use but would be designated for Mixed Use Campus under the Recommended Alternative in the buildable lands analysis.
- 97.5 buildable net acres of land located west of the Winco Foods property along I-5 and on the east side of Butteville Road. This site has direct access to Butteville Road and Woodland Avenue, which connect to Highway 219 near the I-5 interchange. Water, sewer, and storm lines, as well as Woodland Avenue, are stubbed to the west property line of this site.
- 48.8 buildable net acres of land along Arney Road, north of the Factory Outlet northwest of the I-5 interchange. This site has access to Arney Road, an arterial, and public services abut the site.
- 61.5 net buildable acres of land located adjacent to other industrial uses in the southeast corner of Woodburn, south of Highway 214 and straddling the railroad spur to Molalla. This site has access to

LABOR FORCE

The labor force in any market consists of the adult population (16 and over) who are working or actively seeking work. The labor force includes both the employed and unemployed. Children, retirees, students, and people who are not actively seeking work are not considered part of the labor force. The labor force in Woodburn is not limited to local residents; firms in Woodburn could attract workers from surrounding communities, and residents of Woodburn may work in other communities. Table 3-4 shows the number of Woodburn residents who commuted to other areas to work in 1996. Almost all of the commuters work in the Portland or Salem metropolitan areas. Data on the number of workers who commuted to Woodburn to work is not available.

Table 3-4. Commuters from Woodburn, 1996

<u>Workplace</u>	<u>Commuters</u>
Southeast Metro	1,069
West Metro	957
Portland	892
Salem-Keizer	816
Albany	26
Gresham	20
McMinnville	10
Eugene-Springfield	6
Corvallis	0
Total Commuters	3,796

Source: Oregon Department of Transportation, 1998. *Commuting in the Willamette Valley*. Salem: Transportation Planning Section. May.

The availability of labor is critical for economic development. A recent statewide survey in Oregon found that over one-third of Oregon's recently hiring employers had difficulty filling positions.³ Availability of labor depends not only on the number of workers available, but the quality, skills, and experience of available workers as well.

The unemployment rate is one indicator of the relative number of workers who are actively seeking employment. 1997 data from Claritas shows unemployment in the 97071 zip code area (Woodburn) was 6.3% of the labor force, compared to 6.1% in Marion County, 4.9% in the North Valley region, and 6.1% in Oregon. These unemployment rates are relatively low and indicate a tight labor market exists in the region. While the higher unemployment rate in Woodburn may indicate that labor is relatively more available, it also

may be higher there because the skills of available workers do not match up to the available jobs.

Direct information on the quality of the workforce is not readily available—it would require an extensive survey about worker's level of education, work experience, and an assessment of cognitive and physical skills. Demographic characteristics that are typically used to indicate the quality of the labor force include age distribution, educational attainment, employment by occupation or industry, and race/ethnicity.

³ Oregon Employment Department. 2000. *Workforce 2000: An Oregon Employer Perspective*. Salem: Research Section, Workforce Analysis Unit. September.

Table 3-5. Percent of population by age, 1997

Source: Claritas. REZIDE 1996. Percentages calculated by ECONorthwest.

Age	Oregon	North Valley	Marion County	Woodburn
Under 18	26%	26%	27%	31%
18-34	22%	23%	23%	23%
35-49	24%	25%	23%	18%
50-64	14%	14%	14%	11%
65+	14%	13%	14%	17%
Total	100%	100%	100%	100%

Table 3-5 shows the share of population by age in Woodburn, Marion County, the North Valley region, and Oregon. This table shows that compared to other areas, Woodburn has a higher share of population in the under 18 and 65+ age groups. These age groups are generally outside the labor force, indicating that Woodburn has a smaller supply of labor than it would if its age distribution was closer to the Oregon average. Woodburn also has a

smaller share of population in the 35-49 and 50-64 age groups, which are the groups most likely to hold managerial or professional positions and be in the peak earning period of their career.

Table 3-6 shows the percent of population by the number of years of education completed. This table shows that Woodburn has a substantially higher share of population that completed only elementary school—20% in Woodburn compared to 6%-9% in other areas. Woodburn has a correspondingly lower share of population that completed 1-3 or 4+ years of college.

Table 3-6. Percent of population by education completed, 1997

Area	College 4+ Years	College 1-3 Years	High School 4 Years	High School 1-3 Years	Elementary 0-8 Years	Total Population
Oregon	21%	32%	29%	12%	6%	100%
North Valley	24%	34%	26%	11%	6%	100%
Marion Co.	18%	32%	29%	13%	9%	100%
Woodburn	11%	25%	29%	15%	20%	100%

Source: Claritas. REZIDE 1996. Percentages calculated by ECONorthwest.

The percent of population by race/ethnicity is shown in Table 3-7. This table shows that Woodburn has a substantially higher share of Hispanic population. The 2000 Census indicated that 50% of Woodburn's population is Hispanic; a figure considerably higher than the Claritas estimates. In 1997,

Table 3-7. Percent of population by race/ethnicity, 1997

Area	White	Black	Hispanic	Other	Total
Oregon	89%	2%	5%	4%	100%
North Valley	87%	3%	5%	5%	100%
Marion Co.	87%	3%	5%	5%	100%
Woodburn	66%	1%	32%	2%	100%

Source: Claritas. REZIDE 1996. Percents calculated by ECONorthwest.

Hispanics had a higher labor force participation rate (77%) than the overall state population (68%).⁴ Hispanics also had a higher rate of unemployment in 1998 (8.5%) than the overall population (5.8%). The Oregon Employment Department identified skills mismatches, language, lack of transportation, and education as factors that may hinder Hispanics'

⁴ *Hispanics in Oregon's Workforce, 1998*. Oregon Employment Department.

Hispanics are in Farm, Forestry, and... statewide population as a whole. Moreover, far fewer Hispanics are in professional occupations. This suggests that Hispanics earn less than other groups. According to the Oregon Employment Department, "there is little doubt that in Oregon, income levels are lower than those for all Oregonians."

Table 3-8 shows the percent of population by occupation. This table shows that a larger share of Woodburn residents are in the Farm/Forest/Fishing, Laborer & Handler, and Machine & Transportation Operators occupations, which are generally low-skill and low-wage occupations. Woodburn has a correspondingly low share of population in Executive/Administrative/Managerial and Professional occupations, which are generally high-skill and high-wage occupations.

Table 3-8. Percent of population by occupation, 1997

Occupation	Oregon	North Valley	Marion County	Woodburn
Execs, Admin, Mgrs	12%	13%	12%	9%
Professional	14%	15%	13%	9%
Technical	3%	3%	3%	2%
Sales	12%	12%	11%	9%
Admin & Clerical	15%	16%	16%	11%
HH Services	0%	0%	0%	0%
Other Services	13%	12%	15%	14%
Craft & Precision Prod.	11%	11%	11%	12%
Machine & Trans Operators	11%	10%	10%	14%
Laborer & Handler	4%	4%	4%	6%
Farm, Forest, Fishing	4%	3%	6%	14%
Total	100%	100%	100%	100%

Source: Claritas. REZIDE 1996. Percents calculated by ECONorthwest.

The data in this section suggests that the labor force in Woodburn may lack the skills needed in industries with high-skill and high-wage occupations. If Woodburn wants to attract high-skill and high-wage industries it will need to rely on workers who reside outside of Woodburn, attract higher-skilled residents, or improve the education and training of existing residents.

HOUSING

Housing is an important component of any economic development strategy. Goal 10 requires cities to develop strategies to provide housing affordable to households at all income levels. In addition to concerns about availability of housing affordable to lower income households, issues of providing higher quality housing for managers need to be considered in both housing and economic development strategies.

Moreover, ORS 197.296 requires communities to inventory buildable residential lands and conduct a housing needs analysis. Woodburn completed

interviews with local realtors and brokers to develop a broader understanding of the local housing market.

Table 3-9 shows building permits issued for new residential construction in Woodburn between 1988 and 1997. The data show about 1,280 permits were issued during this period. About 70% of residential building permits were issued for single-family dwellings; 38% of all residential permits were issued for manufactured or mobile homes.

Table 3-9. Building permits issued for new residential construction, Woodburn UGB, 1988-1997

Housing Type	Units	Percent of Units
Single-family	394	31%
Manufactured/Mobile Home	308	24%
Manufactured/Mobile Home Park	179	14%
Duplex	22	2%
Multiplex (3-6 DU)	91	7%
Multi-family (7+ DU)	286	22%
Total	1,280	100%

Source: Woodburn Buildable Lands and Urbanization Project, Final Report. McKeever/Morris, Inc., February 7, 2000.

Demographics are an important component of determining housing demand and need. The buildable lands study found several demographic trends relevant to discussions of future growth include population and household size:

- Sometime after 1980, the average household size in Woodburn started to increase, running counter to the regional and national trend of decreasing household sizes. This may be attributable, in part, to an increasing proportion of Hispanic families, which census data indicates have larger average household sizes.
- Of particular interest for housing are the results of the 1994 Woodburn Population Enumeration conducted by Portland State University that indicate larger households are concentrated in rental and multiplex units.
- Between 1990 and 1998, annual household income rose in the Woodburn zip code area (some employment and income data is only available by zip code). As of 1998, the proportion of households in the lower income brackets of under \$15,000 and \$15,000 to \$24,999 per year are approximately half their 1990 levels. The proportion of

• Woodburn Buildable Lands and Urbanization Project, Final Report. McKeever/Morris, Inc., February 7, 2000.

The buildable lands study also addressed concerns about jobs/housing balance. Table 3-10 shows that in 1990 there were 0.65 jobs available in the Woodburn zip code for every household. However, at the same time there were 1.06 employed persons per household, suggesting a jobs/housing imbalance. A job/housing imbalance may force residents to seek employment outside the community. Due to significant job growth, between 1990 and 1997, there were approximately 1.01 jobs available in the Woodburn zip code for every household.

**Table 3-10. Woodburn zip code (97071)
jobs/household balance**

Variable	1990	1997/98
Average Employment	3,924	7,834
Peak Employment	5,009	9,794
Employment Low	3,023	6,710
Households	6,011	7,743
Jobs/Household	0.65	1.01

Source: Woodburn Buildable Lands and Urbanization Project, Final Report. McKeever/Morris, Inc., February 7, 2000.

Housing affordability was also a key issue addressed in the buildable lands study. Since 1990, single-family housing in Woodburn has been consistently more affordable than housing in surrounding communities. In 1998, the average sales price of a home in Woodburn was \$121,000, compared to \$133,500 in Mt. Angel, and \$161,700 in Silverton.

According to a housing needs analysis completed for Woodburn by E.D. Hovee & Company, empty nesters are buying the most expensive Woodburn homes—those located in new subdivisions around the Tukwila golf course. The homes were reportedly valued at \$200,000 and up.

The E.D. Hovee report estimates Woodburn will need an additional 3,052 dwelling units to accommodate population growth between 1998 and 2020. Hovee estimates about 73% of new housing will be single-family and about 27% will be multi-family.

The relationship between job creation, wages, and housing affordability is an important one. The data on employment trends in Woodburn area suggest that (1) incomes are less than county averages, and (2) that many of the jobs forecast in the area will be lower wage jobs. While housing in Woodburn is relatively affordable compared to other nearby communities, the structure of new job creation could lead to a greater affordability gap than exists today.

Data from the Oregon Employment Department conclusively show that Hispanics earn less than the statewide average at all education levels. Moreover, Hispanics have a lower percentage in professional occupations than the state as a whole.

200.250 requirements. The template does not estimate needed units by housing type, but does estimate needed units by tenure and cost categories. The results for Woodburn, provided by HCS show a need for about 2,348 dwelling units between 2000 and 2020—a figure considerably less than the 3,052 new dwelling units between 1998 and 2020 estimated by E.D. Hovee & Company. The HCS model assumes a tenure split of 67% owner-occupied and 33% renter-occupied.

Table 3-11 shows needed rental units in 2000 and 2020 by rent cost. The results indicate an additional 782 new rental units are needed at all rental values between 2000 and 2020.

Table 3-11. Needed rental units by rental value, 2000 and 2020, Woodburn UGB

Rental Value	2000 DU	2020 DU	New Units Needed	Annual Wage Requirement
0-199	404	552	148	<10k
200 - 429	533	727	195	10k <20k
430 -664	437	596	160	20k <30k
665 -909	321	438	117	30k <40k
910 - 1149	305	417	112	40k <50k
1150 +	141	192	52	50k +
Total	2,140	2,923	782	

Source: Oregon Department of Housing and Community Services, February 2001
 Note: rental values in 2000 dollars

Table 3-12 shows needed owner-occupied units in 2000 and 2020 by rent cost. The results indicate an additional 1,566 new owner-occupied units are needed at all rental values between 2000 and 2020.

Table 3-12. Needed owner-occupied units by rental value, 2000 and 2020, Woodburn UGB

Price	2000 DU	2020 DU	New Units Needed	Annual Wage Requirement
<60k	1,157	1,580	423	<10k
50k <90k	824	1,126	301	10k <20k
75k <120k	670	915	245	20k <30k
100k <150k	625	853	228	30k <40k
125k <225k	749	1,023	274	40k <50k
187.5k+	258	353	94	50K +
Total	4,284	5,849	1,566	

Source: Oregon Department of Housing and Community Services, February 2001
 Note: price in 2000 dollars

The results of the OHCS model suggest that a substantial number of lower cost units will be needed. For example, 1,067 dwelling units will be needed for households with incomes under \$20,000. This is 45% of the City's total estimated housing need. While cost savings are possible, it is difficult to significantly decrease the cost of construction. Increasing wages is another strategy to bringing housing costs more in line with wages.

Economic development strategies pursued by the City could change the distribution of housing need. For example, successfully recruiting a high-wage manufacturing plant could create additional need for owner-occupied dwelling units in the \$187,000 and over category. The HCS model allows analysis of affordability gaps by comparing the implied distribution of needed housing units based on income and age, with the actual distribution. The results provided to ECONorthwest by HCS, however, did not include an evaluation of unmet housing need.*

PUBLIC SERVICES

The City of Woodburn's Comprehensive Plan contains goals and policies related to the provision of public services. Among these goals and policies are the following:

- The goal is to limit the amount of vacant land within the City in order to enjoy the benefits of an orderly development pattern, that reduces the rate that farm land is converted to urban use and the optimum use of public service and utility capacity.
- To insure the growth is orderly and efficient, the City shall phase the needed public services in accordance with the expected rate of growth. The extensions of public services should be in accordance with the master plans in this Comprehensive Plan.
- To insure that the City's growth does not exceed its ability to provide public services, the City shall adopt a growth control ordinance, similar to the Limited Growth Ordinance now in Effect. When and if the growth control is used, the City shall reexamine the public facilities plan and determine at that time if it is in the public interest to expand facilities to accommodate the additional growth.

These goal and policy statements make it clear that the City of Woodburn wants growth to occur in such a way that facilitates orderly expansion of public services, and that it does not want growth that will exceed the City's ability to provide public services. Thus, public service capacity is critical for economic development in Woodburn.

* This evaluation requires the current distribution of housing values and rent. Conducting a rent survey was not included in ECONorthwest's work program for this project.

According to City staff, no water or sewer capacity constraints exist at this time that would preclude development of lands designated for commercial and industrial uses. Moreover, staff indicated that there are no areas in the City that cannot be serviced with water and sewer. Some of the larger parcels in the Southern areas of Woodburn would require extensions that increase development costs, however, these parcels could still be serviced. Staff indicated that no major water or effluent quality problems exist.

In the longer term, the City will need to drill new wells. Staff indicated that the City has sufficient water rights at this time to accommodate forecast population and employment growth. The City has also planned ahead for development in some areas. For example, when the City extended Woodland road on the west side, the sewer line was developed in a manner that would increase the long-term capacity of that area.

The City is in the process of completing a stormwater management plan that will include new development standards. Staff indicated that any new facility will probably be required to construct detention ponds to reduce flow rate to pre-development, and to provide pre-treatment oil/water or vein type separator reduce oils or biological oxygen demand (BOD). Staff also indicated that the Pudding River has been designated as water quality limited by the Department of Environmental quality and that total maximum daily load (TMDL) standards may be slightly different in Woodburn than other nearby communities. Staff, however, were of the opinion that stormwater requirements in Woodburn would be comparable to other cities in the area.

TRANSPORTATION

Several studies of Woodburn's transportation system have been recently completed, including the *Woodburn Transportation System Plan* (1996), *Highway 214 Alternatives Analysis Study* (1999), and the *I-5/Highway 214 Interchange Refinement Plan Study* (2000), as well as several traffic impact studies at key sites. This section will draw from these reports to summarize transportation conditions in Woodburn.⁷

Both the *Interchange Refinement Plan Study* and *Highway 214 Alternatives Analysis Study* used traffic projections based on population and employment projections for the Urban Growth Boundary area developed by City of Woodburn Community Development Staff. These projections were developed prior to the completion of the *Woodburn Buildable Lands and Utilization Project* (2000). The employment projection used to forecast traffic conditions indicated an increase in employment of 3,221 or 64% over the 1991-2020 period. The expected employment increase by area is shown in Table 3-13.

⁷ Key points from these documents were summarized by Kittelson & Associates in "Transportation Issues Associated With Economic Development Opportunities In Woodburn." Technical memorandum to Terry Moore from Phill Worth, Julia Kuhn, and Alan Danaher, February 26, 2001.

Table 3-13. Employment increases built into 2020 traffic projections, 1991-2020

	Retail & Service	Government/ Education	Industrial	Other	Total
West of I-5	485	0	616	20	1,121
South of Hwy 214 between I-5 and Boones Ferry Rd	790	0	0	0	790
East of Hwy 99E	340	0	361	0	701
North of Hwy 214 between Boones Ferry Rd and Hwy 99E	65	0	473	0	538
South of Hwy 214 between Boones Ferry Rd and Hwy 99E	73	0	0	0	73
North of Hwy 214 between I-5 and Boones Ferry Rd	39	-71	0	30	-2
Total	1,792	-71	1,450	50	3,221

Source: Interchange Refinement Plan (2000) and Highway 214 Alternatives Analysis, as summarized by Kittelson & Associates, "Transportation Issues Associated With Economic Development Opportunities in Woodburn," February 26, 2001.

To facilitate both local and regional growth, the plans identified several transportation system improvements that will be necessary, including:

- Improvement of the I-5 / Highway 214 interchange or construction of an additional I-5 interchange to serve Woodburn.
- Widening of Highway 214 to four lanes east of I-5 and improvements to the Highway 214 / Boones Ferry Road intersection.
- Improved access management on Highway 99E and development of a future two-lane roadway behind the existing businesses on the east of Highway 99E between Highway 211 and Highway 214.
- Extension of Crosby Road to connect with Highway 99E.
- Development of a southside arterial.
- Improved public transportation service.

I-5 ACCESS

I-5 is the major roadway serving the Woodburn area with a focus on interstate commerce, including trucking and tourism, and is therefore critical to the economic vitality of the City of Woodburn. Transportation plans have found that the single interchange at I-5 at Highway 214 serving Woodburn is inadequate in its current configuration to serve future development in the City, both in terms of capacity and geometry. The *Woodburn Transportation System Plan (TSP)* identified three alternatives for improving I-5 access to be addressed in a subsequent interchange refinement study:

- Improve the existing Highway 214 interchange.

Extend the existing highway 214 interchange to the south to create a split diamond interchange with the south ramps, integrated with an extension of Highland Avenue that would cross I-5 and tie into a new Southside Arterial.

- Construct a new interchange at Butteville Road.

Subsequent to the Woodburn TSP, a new truck-fueling depot associated with the Winco Distribution Center west of I-5 was approved and constructed, along the original alignment identified for the extension of Highland Avenue over I-5. This placed a significant constraint on the future ability of tying an extension of Highland Avenue over I-5 to a Southside Arterial.

The 2000 *Interchange Refinement Plan* recommended improving the existing Highway 214 interchange with either a standard diamond or partial cloverleaf configuration. The traffic operations analysis of the partial cloverleaf interchange improvement (including four through lanes on Highway 214 across the interchange) revealed a reserve capacity in 2020 of about 630 vehicle trips during the weekday PM peak hour. This reserve capacity translates into about an added 1,230 employees of general light industrial development, or 1,370 employees of general office development, over and above the employment increases assumed in the 2020 Interchange Refinement Plan analysis.

It is important to note that in order for improvements to the existing interchange to be successful, the improvements to Highway 214 identified in the 2000 *Interchange Refinement Plan* and called for in the *Highway 214 Alternatives Analysis* between Oregon Way and Woodland Avenue must be completed. The improvements identified for each facility (the interchange and Highway 214) are inter-dependent. Doing one set of improvements without the other will not solve either problem.

HIGHWAY 214

The *Highway 214 Alternatives Analysis* documented the need to widen Highway 214 to four through lanes east of the I-5 interchange. West of I-5, Highway 219 can be widened to four through lanes if needed in the longer term to serve added development on the west side of the interchange.

The 2020 corridor traffic operations analysis conducted along Highway 214 as part of the follow up *Interchange Refinement Plan* revealed that the Highway 214 / Boones Ferry Road interchange will be the future capacity constraint in the corridor, with a volume to capacity ratio during the weekday PM peak hour of 0.98. Boones Ferry Road will need to be widened to five lanes through the Highway 214 intersection, and added through and and/or turn lanes on Highway 214 will be required to serve 2020 traffic projections at an acceptable volume to capacity ratio.

with the recommended improvements to the I-5 / Highway 214 interchange, traffic accessing the undeveloped land east of I-5 and south of Highway 214 will have to access this property off Evergreen Road. This is also the major access to Highway 214 for the existing residential area south of Highway 214. With improvements, this intersection is projected to have a volume to capacity ratio of 0.73 during the 2020 weekday PM peak hour, thus having a reserve capacity of about 485 vehicles during the weekday PM peak hour. This translates into about 950 employees of general light industrial development or 1,050 employees of general office development, in addition to the employee increases previously reflected in the 2020 travel demand projections.

It is again important to note that in order for improvements to the existing interchange to be successful, the improvements to Highway 214 identified in the 2000 *Interchange Refinement Plan* and called for in the *Highway 214 Alternatives Analysis* between Oregon Way and Woodland Avenue must be completed. The improvements identified for each facility (the interchange and Highway 214) are inter-dependent. Doing one set of improvements without the other will not solve either problem.

HIGHWAY 99E

There is the potential for new industrial development along Highway 99E north of Highway 214/211, as well as the potential for infill commercial/office/industrial development along this roadway between Highways 214/211 and south of the Highway 214 intersection. Improved access management through raised median development and driveway consolidation along Highway 99E is critical, as the roadway in the central section cannot be widened without major right-of-way impacts. The Woodburn TSP identifies the development of a future two-lane roadway behind the existing businesses on the east of Highway 99E between Highway 211 and Highway 214, which would open up access to the undeveloped industrial-zoned property in that area.

OTHER ROADWAY IMPROVEMENTS

Extending Crosby Road to intersect Highway 214 would improve access to the undeveloped industrially zoned property on the northeast side of the City, and divert some traffic off Highway 214 from Highway 99E. Also, increased use of Crosby Road to access the Woodburn Factory Outlet Stores would reduce traffic on Highway 214 across I-5.

Development of a Southside Arterial would provide access to the undeveloped south west side of Woodburn, but the benefits would be limited unless it were tied to a second interchange on I-5 south of Highway 214, or it extended west across I-5. The section of the Southside Arterial between Highway 99E and Boones Ferry Road would primarily benefit new residential development emerging in that area.

There is a large transit-dependent and transit-supportive population living in Woodburn. An expansion of the City transit system to provide improved transit service to new employment centers will be required to assure that adequate access to jobs in the area is provided. The Woodburn TSP identified the expansion of bus service through converting the existing bus route to two-way operation, and expanding service coverage on both the north and south sides of Highway 214. A potential future transportation center was also identified to be developed in downtown Woodburn.

LOCAL RAIL SERVICE

The existing Union Pacific Railroad mainline through Woodburn provides an opportunity for new industrial development in the City to use this facility for local rail service. Many undeveloped parcels are identified for such development along the railroad. The provision of added spur tracks could extend east and west of the rail mainline, though caution must be taken to limit the number of new rail/highway rail crossings.

Use of this rail corridor for higher speed passenger service in the Cascadia corridor from Eugene to Vancouver, British Columbia may increase pressure to avoid or reduce the number of at-grade crossings of the railroad, thus limiting the east-west connectivity in Woodburn.

Passenger rail service through Woodburn may present a long-run opportunity for economic development, particularly the revitalization of downtown Woodburn. Currently the Cascadia and Coast Starlight passenger trains do not stop in Woodburn. According to Bob Krebs, Passenger Rail specialist with the Oregon Department of Transportation, the City may be able to get passenger service in Woodburn if it can show that the stop would generate sufficient passenger traffic. The City would also need to fund construction of a passenger rail station.

Demonstrating sufficient demand for passenger rail service is the primary obstacle to getting a stop in Woodburn, as the city has historically produced low ridership when it was served by passenger rail or throughway bus service. It may be difficult for the City to show the potential ridership before the service is available in Woodburn, as having the service would be necessary to attract the type of development that would support ridership. Woodburn would also need to compete with other cities in the corridor that may want passenger service, and the number of stops the train can make is limited because of the impact on travel time, schedule, and other rail traffic.

Planned passenger rail service from Woodburn to the Oregon Gardens in Silverton may present an opportunity to get Cascadia service. A Cascadia stop in Woodburn would allow some travelers to connect to the Oregon Gardens service without driving on I-5.

While the potential for Cascadia service in Woodburn may seem unlikely in the near future, the City may want to preserve the long-run opportunity by protecting a site for a station and the parking and access that would be necessary for the station to function.

RENEWABLE AND NON-RENEWABLE RESOURCES

Goal 9 requires economic development plans to be based on a consideration of the availability of renewable and non-renewable resources and pollution control requirements in the planning jurisdiction. Goal 9 goes on to state that economic projections should take into account the availability of natural resources to support the expanded development, and that plans to improve the economy should consider as a major determinant the carrying capacity of the air, land, and water resources of the planning area.

Agricultural land and regulations to protect threatened and endangered species are two resource issues with potential to affect economic development planning in Woodburn. The availability of buildable land and water supply issues are addressed elsewhere in this chapter.

Woodburn is located in the fertile French Prairie portion of the Willamette Valley, and it has traditionally served as an agricultural service center for northern Marion County. Agricultural production in the area has supported employment in Woodburn, both directly as in the Food Processing industry, and indirectly in the Retail Trade and Services sectors.

While employment in agricultural production and food processing is not expected to grow substantially in the forecast period, it should continue to play an important role in Woodburn's economy. Agriculture in Oregon is less constrained by regulation and environmental issues compared to other states, especially the water supply issues that are reducing the capacity of California farmers to supply fruit and vegetables. This may open an opportunity for Willamette Valley farmers and processors to boost production and market share in fresh and processed foods. A threat to agricultural activity in Woodburn and the surrounding area is population growth in the Willamette Valley, may reduce the amount of land in production by converting agricultural land to urban and rural residential uses.

The listing of the upper Willamette Spring Chinook and Steelhead may have widespread effects in the Willamette Valley because these fish swim and spawn in the Willamette River and its tributaries. Because these species were only recently listed as threatened, specific regulations to protect these species have not been adopted. However, it is widely anticipated that regulations will impact economic activity by restricting some agricultural practices, increased standards for storm and sanitary sewer discharges into waterways, and further limiting development near streams and rivers.

Regulations to protect salmon will be imposed throughout the Willamette River basin. Regulations to protect salmon should have less of an impact in Woodburn than in many other Willamette Valley communities, because

Woodburn's Comprehensive Plan identifies only Senecal Creek and Mill Creek as potential fish habitat. In this context the implementation of regulations to protect salmon may create a comparative advantage for development sites in Woodburn. While these measures may impose significant costs to specific activities at specific sites, overall they are unlikely to significantly affect the overall level of income or employment in the Willamette Valley.

QUALITY OF LIFE

Quality of life is difficult to assess because it is subjective—different people will have different opinions about factors affect quality of life, desirable characteristics of those factors, and the overall quality of life in any community. Economic factors such as income, job security, and housing cost are often cited as important to quality of life. These economic factors and overall economic conditions are the focus of this report, so this section will focus on non-economic factors that affect quality of life.

Quality of life can be important for economic development in Woodburn because it affects the relative attractiveness of the city to migrants. Net migration is expected to make up about 70% of the Oregon's population growth over the next twenty years.* A relatively desirable quality of life may help Woodburn attract more migrants than it otherwise would. Most migrants bring work skills that will help increase availability of labor in the region and support economic activity in the construction, retail trade, and services sectors. Some migrants may be highly-skilled and can help generate further economic development by adding their skills to existing businesses or by attracting new businesses to the area.

The developed portions of Woodburn contribute to quality of life by providing schools, public safety, shopping, parks, and cultural activities, and Woodburn's location near Portland allows its residents to enjoy the cultural opportunities of a larger urban area. Woodburn's size and location allow its residents to enjoy these urban amenities while maintaining a small-town or rural lifestyle and having access to outdoor recreational opportunities. While Woodburn shares these quality of life attributes with other communities in the Willamette Valley, the combination of proximity to larger cities with a small-town or rural lifestyle will become increasingly scarce as population growth continues. A challenge for Woodburn will be maintaining the qualities of a small town while accommodating population and employment growth. To the extent that Woodburn becomes more like other suburban communities it will lose the advantage of having small-town character with proximity to larger urban areas.

* State of Oregon, Office of Economic Analysis. January 1997. *Long-Term Population and Employment Forecasts for Oregon*. Salem: Department of Administrative Services.

This chapter builds on Woodburn's opportunities and constraints as well as our analysis of national, state and regional economic trends to identify target industries.

CRITERIA FOR SELECTING TARGET INDUSTRIES

Selecting target industries is not an easy task. First, there is the issue of deciding how many industries to target. This depends on the purpose of the targeting. For the purpose of the Economic Opportunity Analysis, we believe that targeting 10-15 industries will provide potential for more focused analysis of site needs and for coordinated efforts to attract good jobs to Woodburn.

Both the attractiveness of the industry to Woodburn and the attractiveness of Woodburn to the industry must be considered when selecting target industries. These considerations are embodied in the criteria used to select target industries in this chapter. These criteria are:

- **1999 employment in Woodburn and the North Valley region.** Industries with significant existing employment in the North Valley Region are the industries most likely to have significant growth opportunities. Small industries are unlikely to add great numbers of employees or have an impact on Woodburn's economy, even if their expected employment growth rate and average payroll are high.
- **Employment growth 1990-1999 in Woodburn and the North Valley region.** Past employment growth can be an indicator of the potential for future employment growth. Industries that have been growing in the community in recent times may continue to grow in the future.
- **Expected employment growth 1998-2008 in Workforce Region 3 and the Portland Area.** Employment forecasts indicate whether an industry is going to gain or shed jobs in the area. For the target industry analysis we use 1998-2008 employment forecasts from the Oregon Employment Department for Workforce Region 3 (Marion, Polk, and Yamhill Counties) and the Portland Area (Clackamas, Clark, Columbia, Multnomah, Washington, and Yamhill Counties).
- **Regional average payroll per employee.** Average wages vary quite a bit. Retail and service industries tend to have lower wages, while manufacturing industries tend to have higher wages.

These criteria were used to identify potential target industries for further analysis. High-wage industries with the best prospects for growth were then further evaluated using the following criteria:

ratio of the percentage share of an industry's employment in the local economy to the percentage share of that industry's employment in a larger area. Thus it reflects the relative concentration of an industry in a particular area. For example, if mitten manufacturing accounts for 5% of employment in Woodburn but 10% of employment in the North Valley region, the local location quotient for mitten manufacturing is 0.5. A location quotient can have opposite interpretations depending on circumstances. A location quotient less than one suggests that the local economy may be able to attract its share of regional employment in that industry, or that the local economy has a comparative disadvantage for firms in that industry. A location quotient greater than one suggest that the local economy may not be able to attract more employment in that industry because it already has more than its regional share, or that the local economy has comparative and competitive advantages for firms in that industry that may lead to further growth.

Location quotients were calculated for Woodburn and the North Valley region. Comparing location quotients essentially compares one mixed message with another, but in general:

- When both are lower than one it suggests that the region is not attractive to firms in that industry, although in some cases there may be an opportunity to attract firms in that industry.
- High location quotients in both Woodburn and the North Valley suggests that the region has a comparative advantage for firms in that industry, but growth prospects depend on national economic conditions and industry trends.
- A high location quotient in the North Valley but low in Woodburn suggests the region has comparative advantages for firms in that industry and Woodburn may be able to attract a larger share of employment in that industry.
- A low location quotient in the North Valley but high location quotient in Woodburn suggests that the region does not have a comparative advantage in that industry, and the local prospect for growth is low.
- **Environmental characteristics.** For some industries, air or water emissions, noise, vibration, or traffic congestion might be an issue of concern to Woodburn.
- **Compatibility with public utilities.** In some cases, an industry's expected use of water, sewer, drainage, or electricity infrastructure might be higher than normal. This is not necessarily negative, unless Woodburn's public utilities could not efficiently provide the needed capacity.

- **Other factors.** These include consideration of whether the industry is a primary one that is likely to attract outside dollars and have high spin-off effects, and whether the location is one that makes sense for industries in terms of proximity to markets and suppliers.

POTENTIAL TARGET INDUSTRIES FOR WOODBURN

FIRST-ROUND EVALUATION

ECO narrowed the list of nearly 70 industries to 24 *potential* target industries through the application of the first set of criteria described above. In applying the criteria, ECO separated the industries into two groups to reflect their different nature. The first group includes industries commonly referred to as **Industrial**—those in the Construction, Manufacturing, Transportation/Communication/Utilities, and Wholesale Trade sectors. The second group includes **Non-Industrial** industries—those in the Agriculture, Mining, Retail Trade, Finance/Insurance/Real Estate, Services and Government sectors.

Standards for each criteria were set to identify target industries. While the criteria are the same for Industrial and Non-Industrial industries, the standards vary to reflect different conditions in each set of industries.

- **1999 employment:** over 1,000 for industries in the North Valley region. Industries below these thresholds may be too small to generate significant opportunities for employment growth in Woodburn.
- **Employment growth 1990–1999:** over 10% for Industrial firms and over 20% for Non-Industrial firms because of a higher average growth rate in Non-Industrial industries.
- **Expected employment growth 1998–2008:** over 0% for Industrial industries and over 10% for Non-Industrial industries, again because of a higher average growth rate in Non-Industrial industries.
- **Regional average payroll per employee:** over \$35,000 for Industrial industries and over \$30,000 for Non-Industrial industries, because of the higher average payroll per employee levels in Industrial industries.

These criteria and standards were used to make a first pass at identifying potential target industries for Woodburn. To make it to the second round of evaluation, industries had to meet the standards for all criteria. The results of applying the criteria to Industrial and Non-Industrial industries are shown in Tables 4-1 and 4-2. The shading in the table represents criteria on which the industries failed the standards listed. The 24 industries that are shaded are those that were not selected as potential target industries for a second round of evaluation.

Table 4-1. First-round criteria for selecting potential industrial target industries

INDUSTRIAL CONSTRUCTION, MANUFACTURING, TCU, WHOLESALE							
CRITERIA-->	1999 Employment		Employment Growth 90-99		Employment Growth 98-08		Regional Average Payroll per Employee
	97071 Zip Code Area	North Valley Region	97071 Zip Code Area	North Valley Region	Region 3	Portland Area	
STANDARD-->	none	>1,000	Either >10%		Either >0% (if data available)		>\$35K
15 General Building Contractors	172	12,011	173%	44%			\$39,892
16 Heavy Construction	13	4,873	-43%	31%			\$45,209
17 Special Trade Contractors	198	33,527	69%	53%			\$37,381
20 Food & Kindred Products	776	13,401	12%	2%	2%	-4%	\$28,136
22 Textiles		1,014		-34%		-18%	\$33,533
23 Apparel		2,053		-10%		-7%	\$21,491
24 Lumber & Wood Products	1,013	10,823	32%	-8%	2%	-6%	\$34,966
25 Furniture		2,759		29%		8%	\$30,244
26 Paper & Allied Products		3,791		-8%		0%	\$47,711
27 Printing & Publishing	27	11,224	-16%	22%		8%	\$37,066
28 Chemicals		1,963		36%		8%	\$43,101
29 Petroleum & Coal		374		-43%			\$48,688
30 Rubber & Plastics		5,297		51%		20%	\$30,477
31 Leather		324		-18%		-7%	\$25,599
32 Stone, Clay, & Glass		3,391		29%		17%	\$38,255
33 Primary Metal Industries		8,282		-1%		7%	\$44,566
34 Fabricated Metal		11,979		26%		14%	\$38,088
35 Industrial Machinery & Equipment	129	15,372	63%	20%		9%	\$50,088
36 Electronic & Electric Equipment		27,049		102%		30%	\$70,421
37 Transportation Equipment		12,719		25%		23%	\$46,791
38 Instruments		8,489		-22%		5%	\$55,421
39 Miscellaneous Manufacturing		2,482		-10%		11%	\$31,888
40 Railroad							\$17,666
41 Passenger Transit		3,337		37%			\$18,888
42 Trucking & Warehousing	123	16,341	92%	4%	21%	22%	\$38,222
44 Water Transportation		1,954		67%			\$52,222
45 Air Transportation		10,593		156%			\$33,333
46 Pipelines							
47 Transportation Services		3,906		25%	21%	22%	\$33,444
48 Communications	23	8,426	44%	10%	15%	4%	\$52,666
49 Electric, Gas, Sanitary		6,270		21%		16%	\$62,111
50 Wholesale Trade: Durables	166	37,840	181%	10%		19%	\$46,666
51 Wholesale Trade: Nondurables	128	28,589	198%	29%		20%	\$45,555

Source: Oregon Employment Department, confidential ES-202 data provided to ECONorthwest, and Industry Projections 1998-2008. Calculations and summary by ECONorthwest.

Notes: Shaded cells indicate that the industry failed under the listed criteria.

Table 4-2. First-round criteria for selecting potential non-industrial target industries

NON-INDUSTRIAL: AGRICULTURAL SERVICES, RETAIL, FIRE, SERVICES, GOVERNMENT							
CRITERIA->	1999 Employment		Employment Growth 90-99		Employment Growth 98-08		Regional Average Payroll per Employee
	97071 Zip Code Area	North Valley Region	97071 Zip Code Area	North Valley Region	Region 3	Portland Area	
STANDARD->	none	>1,000	Either >20%		Either >10% (if data available)		>\$30K
01: Agricultural Production - Crops	775	15,152	14%	23%			\$18,104
02: Agricultural Production - Livestock		840	-5%				\$28,364
07: Agricultural Services	403	9,142	476%	89%			\$28,819
08: Forestry	36	1,470	60%	18%			\$21,167
09: Fishing, Hunting, Trapping		19		64%			\$40,381
52: Building Materials	144	6,912	-10%	60%		24%	\$28,597
53: General Merchandise	307	22,075	328%	20%	28%	20%	\$23,904
54: Food Stores	880	21,283	221%	-2%	17%	15%	\$28,741
55: Automotive Dealers & Service	274	18,896	41%	29%		18%	\$32,423
56: Apparel	81	9,828	281%	40%		15%	\$18,138
57: Furniture	42	8,914	163%	50%		18%	\$27,192
58: Eating & Drinking	548	61,201	42%	31%	19%	22%	\$12,444
59: Miscellaneous Retail	84	18,284	79%	29%		20%	\$18,852
60: Educational Institutions	76	14,676	4%	6%		18%	\$34,888
61: Nondepository Institutions		6,937		136%		18%	\$46,418
62: Security & Commodity Brokers		3,018		83%		16%	\$94,928
63: Insurance Carriers		14,314		23%		6%	\$42,024
64: Insurance Agents	24	6,033	0%	34%		8%	\$36,821
65: Real Estate	111	14,543	122%	46%		15%	\$27,425
66: Holding & Investment Offices		1,407		-13%		18%	\$85,491
70: Home & Living Places	58	10,216	76%	27%		20%	\$16,496
72: Personal Services	49	8,051	4%	13%		14%	\$18,843
73: Business Services	88	68,241	126%	82%	38%	51%	\$31,253
79: Auto Repair & Services	59	10,009	5%	42%		30%	\$28,586
78: Miscellaneous Repair	7	2,620	40%	-27%			\$31,081
75: Motion Pictures		4,910		104%		38%	\$24,175
76: Amusement & Recreation	65	11,640	76%	91%		36%	\$22,387
80: Health Services	212	63,475	-2%	24%	19%	20%	\$38,003
81: Legal Services	18	7,228	7%	13%		13%	\$48,383
82: Educational Services	29	13,357	26%	50%		40%	\$28,073
83: Social Services	185	24,879	671%	75%		43%	\$16,716
84: Museums	0	689		12%			\$31,780
86: Membership Organizations	87	14,385	32%	40%			\$18,130
87: Engineering & Management	20	20,042	-13%	39%	38%	30%	\$45,272
88: Private Households		1,583	-40%	68%			\$15,234
89: Services NEG	0	287		23%			\$45,246
Local Government	841	88,601	79%	40%	16%	16%	\$33,404
State Government		27,331		13%	8%	14%	\$35,765
Federal Government		16,857		-5%	5%	2%	\$44,412

Source: Oregon Employment Department, confidential ES-202 data provided to ECONorthwest, and Industry Projections 1998-2008. Calculations and summary by ECONorthwest.

Notes: Shaded cells indicate that the industry failed under the listed criteria.

SECOND-ROUND EVALUATION

The 24 industries identified as potential target industries in the first round of evaluation were further evaluated based on a second set of criteria, including location quotients, environmental characteristics, compatibility with public infrastructure, and other factors. This evaluation is more qualitative than the measurable criteria used in the first round of identifying target industries. Table 4-3 provides our evaluation of these industries. As with the first round of evaluation, shading means that the industry failed according to the criteria listed. Shaded industries were not selected as target industries.

Table 4-3. Second-round criteria for selecting target industries

Location Quotient						
SIC Industry	Local Relative to Region	Regional Relative to U.S.	Comments on Location Quotients	Environmental Characteristics	Compatibility with Infrastructure	Other Comments
15 General Building Contractors	1.58	1.11				Ancillary to other industries and residential growth
16 Heavy Construction	0.28	0.78	Low regional and local shares; unlikely that industry finds comparative advantage in region or Woodburn			Ancillary to other industries and residential growth
17 Special Trade Contractors	0.65	1.12				Ancillary to other industries and residential growth
27 Printing & Publishing	0.28	1.01	Potential for growth in Woodburn as regional share is not too low			
28 Chemicals	2.84	0.27	High local share of small regional share	Potential source of water and air pollution and toxic wastes		
32 Stone, Clay, & Glass	0.29	0.88				
34 Fabricated Metal	0.48	1.12				
36 Industrial Machinery & Equipment	0.92	1.02				
36 Electronic & Electric Equipment	0.00	2.31	Potential for growth in Woodburn due to high regional share		Some firms require large quantities of clean water	
37 Transportation Equipment	0.00	0.96	Potential for growth in Woodburn as regional share is not too low			
42 Trucking & Warehousing	0.83	1.28			Places high demand on transportation systems	
44 Water Transportation	0.00	1.49				Not practical in Woodburn, which lacks navigable waterways
48 Communications	0.30	0.77	Low regional and local shares; unlikely that industry finds comparative advantage in region or Woodburn			
49 Electric, Gas, Sanitary	0.72	1.03				Ancillary to other industrial and residential growth
50 Wholesale Trade: Durables	0.48	n/a	Potential for growth in Woodburn if regional share is not too low		Places high demand on transportation systems	
51 Wholesale Trade: Nondurables	0.49	n/a	Potential for growth in Woodburn if regional share is not too low		Places high demand on transportation system	
55 Automotive Dealers & Service	1.60	1.10				Ancillary to other industrial and residential growth
61 Nondepository Institutions	0.05	n/a	Potential for growth in Woodburn if regional share is not too low			Primarily located in central city/suburban locations, but may be opportunity for back office operations
62 Security & Commodity Brokers	0.11	0.59	Low regional and local shares; unlikely that industry finds comparative advantage in region or Woodburn			
73 Business Services	0.14	1.03	Potential for growth in Woodburn as regional share is not too low			Primarily located in central city/suburban locations, but may be opportunity for back office operations
78 Miscellaneous Repair	0.29	0.95	Potential for growth in Woodburn as regional share is not too low			Ancillary to other industrial and residential growth
80 Health Services	0.37	0.87	Potential for growth in Woodburn as regional share is not too low			Major hospitals located in regional centers (Portland & Salem), but may be opportunity for clinical services
87 Engineering & Management	0.11	0.82	Potential for growth in Woodburn as regional share is not too low			
Local Government	1.07	0.99				Ancillary to other industrial and residential growth

Source: Oregon Employment Department ES-202 data, ECONorthwest.
 Notes: Shaded cells indicate that the industry failed under the listed criteria.

LOCATION QUOTIENTS

As we mentioned earlier, location quotients are difficult to interpret despite their quantitative nature. In general, we believe that regardless of the *local* location quotient in Woodburn, a high *regional* location quotient means the region has a significant share of employment, and Woodburn could possibly take advantage of the region's comparative advantage. The converse of this is that low regional location quotients are negative; they provide an unfavorable assessment about the region's comparative advantage, which may not be altered by Woodburn's economic development strategies.

Even if the local location quotient for Woodburn is high, meaning that Woodburn has a comparative advantage in that industry within the region, the *region* must have some minimum location quotient in that industry, otherwise Woodburn's high share of regional employment represents a high share of something fairly insubstantial.

Because of the difficulty in interpreting these location quotients, we only used them to eliminate three industries (heavy construction, communications, and security and commodity brokers). We did so where both the local and the regional location quotients were less than 0.8, indicating that neither the region nor Woodburn has a comparative advantage in these industries.

ENVIRONMENTAL CHARACTERISTICS

Though many industries are potentially detrimental to the environment, we considered only the chemicals industry to have serious enough issues in this regard to warrant its exclusion from the target industries list.

COMPATIBILITY WITH INFRASTRUCTURE

Though several industries place a high demand on the transportation system, and electronic fabrication industries can use high quantities of water, without detailed modeling we cannot justify the conclusion that Woodburn is incapable of supporting these industries.

OTHER FACTORS

Six industries, including construction industries, automotive dealers, repair services, and local government, were eliminated from the target industry list because they are ancillary in nature. Because they are dependent on growth in other industries and the residential population, they are difficult to target.

FINAL TARGET INDUSTRIES

Table 4-4 lists the 13 target industries that were selected after the first-round and second-round evaluations.

SIC	Industrial Industries	SIC	Non-Industrial Industries
27	Printing and Publishing	61	Nondepository Institutions
32	Stone, Clay, & Glass	73	Business Services
34	Fabricated Metal	80	Health Services
35	Industrial Machinery & Equipment	87	Engineering & Management
36	Electronic and Electric Equipment		
37	Transportation Equipment		
42	Trucking & Warehousing		
50	Wholesale Trade: Durables		
51	Wholesale Trade: Nondurables		

Source: ECONorthwest.

The types of firms included in each target industry category are described in Appendix B of this report.

LOCATIONAL AND SITE NEEDS OF FIRMS IN TARGET INDUSTRIES

The required site and building characteristics for the target industries range widely. As such, a variety of parcel sizes, building types and land use designations are required to attract target industries.

There are generally four types of site classifications for the target industries: large lot industrial sites (40-80+ acre parcels); campus research and development (R&D) and smaller manufacturing sites (20 to 40 acre parcels); smaller light industrial/office sites (4-20 acre parcels); and speculative space within office/flex and mixed-use developments. This section describes some of the locational and site needs of typical firms in target industries.

Large lot target industries include Electronic and Electric Equipment manufacturing (i.e., silicon chip fabrication plants). These users are generally more land intensive (typical site requirements exceed 100 acres) and have a relatively high level of environmental and water system impacts.

Industries with firms that may locate in campus research and development (R&D) and manufacturing sites include Electronic and Electric Equipment and the rest of the manufacturing industries may fall into this category.

Smaller light industrial/office sites (4-20 acre parcels) and speculative space within office/flex and mixed-use developments could accommodate smaller manufacturing firms, firms in Wholesale Trade and all of the Non-Industrial target industries.

Table 4-5 summarizes the lot sizes needed for firms in target industries for which data is available at this time.

Table 4-5. Typical lot size requirements for firms in target industries

Industry	Lot Size (acres)	Site Needs
Printing & Publishing	5 - 10	
Stone, Clay & Glass	10 - 20	Flat
Fabricated Metals	10 - 20	Flat
Industrial Machinery	10 - 20	Flat
Electronics - Fab Plants	40 - 80+	Suitable soil
Electronics - Other	10 - 30	
Transportation Equipment	10 - 20	Flat
Trucking & Warehousing	varies	
Wholesale Trade	varies	
Non-Depository Institutions	1 - 5	
Business Services	1 - 5	
Health Services	1 - 10	
Engineering & Management	1 - 5	

Source: ECONorthwest.

More specific locational issues for firms in target industries include the following issues:¹

- **Land use buffers:** According to the public officials and developers/brokers ECO has interviewed, industrial areas have operational characteristics that do not blend as well with residential land uses as they do with office and mixed-use areas. Generally, as the function of industrial use intensifies (e.g., heavy manufacturing) so too does the importance of buffering to mitigate impacts of noise, odors, traffic, and 24-hour 7-day week operations. Adequate buffers may consist of vegetation, landscaped swales, roadways, and public use parks/recreation areas. Depending upon the industrial use and site topography, site buffers range from approximately 50 to 100 feet. Selected commercial office, retail, lodging and mixed-use (e.g., apartments or office over retail) activities are becoming acceptable adjacent uses to light industrial areas.
- **Flat sites:** Flat topography (slopes with grades below 10%) is needed for manufacturing firms, particularly large electronic fabrication plants and 10+ acre fabricated metals and industrial machinery manufacturing facilities.
- **Parcel configuration and parking:** Industrial users are attracted to sites that offer adequate flexibility in site circulation and building layout. Sites must also provide adequate parking, vehicular

¹ Fortune 500 companies appear to be trending towards suburban locations for corporate campus facilities. Relatively low cost land, flexibility for future growth, and proximity to labor force are typical reasons for locating facilities such as Nike, Intel, In-Focus, and Tektronix in suburban locations. Given the relatively high cost of land in California and Washington, and short supply of sites over 20 acres throughout the western United States, there is an emerging opportunity for the Woodburn area. Woodburn is close enough to the high-tech areas of Wilsonville and Washington County to be a viable option for a corporate campus. Firms in Electronic and Electric Equipment and Business Services have potential in this regard.

1,000 square feet are typical design requirements. In general rectangular sites are preferred with parcel width of at least 200-feet and length that is at least two times the width for build-to-suit sites. Parcel width of at least 400 feet is desired for flex/business park developments.

- **Soil type:** Soils stability and ground vibration are fairly important considerations for special high precision manufacturing processes, such as assembling 650 megahertz or higher speed microchips.
- **Building density:** Today's industrial buildings are designed to accommodate materials shipments, goods storage, manufacturing processes, and administrative and customer-support functions. In addition to solid foundations to accommodate the weights of fork lifts moving heavy goods as well as machinery, interior ceiling heights of 18 to 28 feet are expected for manufacturing facilities. Even higher ceiling heights (of up to 45 feet) are expected for warehousing facilities. The ratio of building floor area to site area (FAR) typically ranges from 0.35 for industrial/flex buildings to 0.5 for office buildings. Building depth for industrial and flex buildings is often 100 to 120 feet, while width varies significantly.
- **Air transportation:** Proximity to air transportation is also key for high technology manufacturing industries, particularly those in the Electronic and Electric Equipment and Industrial Machinery industries. The distance of Woodburn to a major airport could be a drawback in attracting the target industries.
- **Fiber optics and telephone:** In the near future, most if not all industries shall expect access to high-speed internet communications. Some industries, such as internet hotels (a subset of SIC 73—Business Services), require the largest fiber optic telecommunications system available, while others need only redundant T-1 capacity.
- **Potable water:** Potable water needs range from domestic levels to 300 kgpd (thousands of gallons per day). Significantly higher levels of water demand are associated with selected industries in SIC 36 (i.e., silicon chip fabrication plants). However, emerging technologies are allowing these industries to rely on recycled water with limited on-site water storage and filter treatment. The demand for water for fire suppression also varies.
- **Power requirements:** Electricity power requirements range from redundant 115 kva to 230 kva. Average daily power demand (as measured in kilowatt hours) generally ranges from approximately 5,000 kwh for small business service operations to 30,000 kwh for very large manufacturing operations. The highest power requirements are associated with SICs 34, 36 and telecom hotels (within SIC 73). For comparison, the typical household requires 2,500 kwh per day.

- **Transportation:** All of the target industries with the possible exception of business services are heavily dependent upon surface transportation for efficient movement of goods, commodities and their workers. Proximity to I-5 is a key attribute to Woodburn and would be acceptable to most of the target industries. An adequate highway and arterial roadway network would be needed for all industries (including business services).
- **Transit:** Transit access is most important to the target industries with the greatest jobs density and consumer activity, particularly SIC 73.
- **Pedestrian and bicycle facilities:** The ability for workers to access amenities and support services such as retail, banking, and recreation areas by foot or bike is increasingly important to employers. Very large employers (with over 500 employees) tend to provide on site amenities such as food service, day care, dry cleaning and banking. However, the majority of job growth is in small to medium sized employers who rely on off site amenities. The need for safe and efficient bicycle and pedestrian networks will prove their importance overtime as support services and neighborhoods are developed adjacent to employment centers.
- **Employee training:** It is important for firms in high-tech and other industries to have nearby facilities where employees can conveniently receive training on latest technologies and skills.

In summary, there is a wide range of site requirements for the potential target industries. While all of the industries rely on efficient transportation access and basic water, sewer and power infrastructure, they have varying need for parcel size, slope, configuration, and buffer treatments. Transit, pedestrian and bicycle access are needed for commuting, recreation and access to support amenities.

All the preceding technical work contained in this report has been structured to comply with the Goal 9 requirements for an "Economic Opportunity Analysis." That information and structure is useful to the City for procedural reasons: it allows the City to demonstrate to state agencies that it has met state planning requirements.

Equally, if not more, important from the City's perspective is that the information is a base from which possible futures and policy options can be generated and evaluated. That evaluation will, in turn, lead to changes in policy that the City believes will increase its possibilities for achieving the future it decides to pursue.

Since the beginning of this project, the City has been clear about the direction it wants to head. In short, City staff have represented that they, the City Council, and the voters the Council represents are in favor of economic growth; would like to see higher-paying, non-polluting jobs to Woodburn; and would like to see the development of more higher-end housing consistent with the incomes that employees in such industries will be paid.

Thus, in this study we have tried to adjust the standard requirements of an Economic Opportunity analysis to address the specific economic development issues of interest to the City. The study has tried to:

- Determine Woodburn's comparative advantages and constraints in the regional economic market place (this report)
- Identify potential appropriate industrial and commercial firms with higher paying jobs, and the demographic, locational, site and infrastructure characteristics desired by these firms (this report)
- Evaluating what it would take (in terms of investment, City policy changes, plan and code amendments and state approvals) to move in the direction of desired changes (following report on *Development Strategies*).

This chapter draws conclusions from the information presented in previous chapters and addresses the first two issues listed above: determining Woodburn's comparative advantage, and identifying target industries. The third issue, evaluating steps to move in the direction of desired changes, will be addressed in the subsequent Development Strategies report. The Development Strategies report will describe a vision for Woodburn's future economic development, founded on factual information, that simultaneously meets state planning requirements.

The following conclusions are intended to raise issues for consideration in the in the next phase of this project. Some conclusions address economic development opportunities; others economic development constraints. While the conclusions ultimately relate to each other in diverse ways ways, we structure them around several key topics for the purpose of discussion.

TARGET INDUSTRIES

Economic growth in the northern Willamette Valley region presents an opportunity for Woodburn to attract firms in relatively high-wage industries. Chapter 5 identifies target industries and their locational needs. Table 5-1 lists the 13 target industries identified as potential targets after the first-round and second-round evaluations.

Table 5-1. Target Industries for Woodburn

SIC Industrial Industries		SIC Non-Industrial Industries	
27	Printing and Publishing	61	Nondepository Institutions
32	Stone, Clay, & Glass	73	Business Services
34	Fabricated Metal	80	Health Services
35	Industrial Machinery & Equipment	87	Engineering & Management
36	Electronic and Electric Equipment		
37	Transportation Equipment		
42	Trucking & Warehousing		
50	Wholesale Trade: Durables		
51	Wholesale Trade: Nondurables		

Source: ECONorthwest.

A comparison of the locational needs of target industries to the locations that Woodburn can offer leads to several conclusions:

- Different industries have different site-size requirements. Depending on the type of industry, site requirements could range anywhere from 1-100 acres. The parcel size for a single moderate-sized employer may not be great. For example, 100 employees in a firm that is primarily office based may require a building of 25,000 to 40,000 square feet. At two stories, the footprint of that building would be 12,000 to 20,000 square feet. Given typical parking and landscaping requirements, such a building could be accommodated on a parcel of 12 to 2 acres.

But the story is not that simple. The business may want room for expansion; it may require one-story for its operation; it may be concerned about image and want to make sure that it is part of a larger campus environment. Campus research and development parks may require sites ranging from 20 to 40 acres, while smaller business parks may require sites of 5-20 acres.

- Industrial users are attracted to sites that offer adequate flexibility in site circulation and building layout. Sites must also provide adequate parking, vehicular circulation and open space. In general rectangular sites are preferred with parcel width of at least 200-feet and length that is at least two times the width for build-to-suit sites. Parcel width of at least 400 feet is desired for flex/business park developments.
- Larger firms appear to be trending towards suburban locations for corporate campus facilities. Relatively low cost land, flexibility for future growth, and proximity to labor force are typical reasons for locating facilities in suburban locations. Given the relatively high cost

of land in California and Washington, and short supply of sites over 20 acres throughout the western United States, there is an emerging opportunity for the Woodburn area. Woodburn is close enough to the high-tech areas of Wilsonville and Washington County to be a viable option for a corporate campus. Firms in Electronic and Electric Equipment and Business Services have potential in this regard.

- The flat topography of Woodburn is consistent with the site needs of target industries. Flat topography (slopes with grades below 10%) is needed for manufacturing firms, particularly large electronic fabrication plants and 10+ acre fabricated metals and industrial machinery manufacturing facilities.
- Soils stability and ground vibration are fairly important considerations for special high precision manufacturing processes, such as assembling 650 megahertz or higher speed microchips. Sites close to the railroad will be unacceptable for these types of manufacturing uses.
- All of these target industries require basic water, sewer and power infrastructure. Fiber optic connections are probably a requirement for these industries. Most of them demand good access to the interstate system. Some prefer proximity to a major airport.

In summary, all of the industries rely on efficient transportation access and basic services, but they have varying need for parcel size, slope, configuration, and buffer treatments.

BUILDABLE LANDS

Buildable lands appear to be a potential constraint to economic development in Woodburn. The City is expected to have an overall deficit of 205 acres over the 1999–2020 period—not including an estimated 71 acres of land needed for schools. Supply and demand for high-density residential and commercial land is evenly matched. Other conclusions from our review of the buildable land analysis:

- The *Woodburn Buildable Lands and Urbanization Project* (henceforth, the Buildable Lands Analysis) shows a 332 acre deficit for industrial land. Moreover, none of the vacant tax lots are over 15 acres in area, and no aggregates of tax lots (contiguous, but independent of ownership) exceed an area of 35 acres. Because all of the parcels are in different ownerships, it is unclear whether a developer could assemble these parcels into a single site. Moreover, the two key vacant industrial areas are distant from I-5 which may limit the types of businesses that might locate there.
- The configuration and location of buildable industrial sites does not provide a good match to the site needs of targeted industries described in the previous section. The Buildable Lands Analysis recommended

amending woodburn's UGB to add 207 industrial acres. The location and configuration of any industrial land added to the UGB is an important consideration.

- The Buildable Lands Analysis shows a 195-acre surplus for low-density residential land. Available residential sites should provide for a variety of housing to be built at a range of values. The Buildable Lands Analysis recommends expanding the UGB to include all of the Tukwila residential development. This action would add 28.7 acres of low-density residential land that would probably be built in higher-value single-family residences.

HOUSING

Housing is an important component of any economic development strategy. The availability of housing for households at all income levels is a necessity for Woodburn to achieve its economic vision. Following are conclusions on the relationship of housing to economic development:

- Planners and policymakers sometimes refer to a "jobs/housing balance," and measure the extent of the imbalance by calculating the ratio of jobs to housing units or households (on the assumption that every household has a dwelling unit). The jobs/housing ratio in Woodburn is improving. In 1990 there were 0.65 jobs available in the Woodburn zip code for every household. At the same time there were 1.06 employed persons per household, meaning that some people in Woodburn had to be going outside of Woodburn for work. That may force residents to seek employment outside the community. Due to significant job growth, between 1990 and 1997, there were approximately 1.01 jobs available in the Woodburn zip code for every household.
- Woodburn is one of the more affordable communities in the region. Since 1990, single-family housing in Woodburn has been consistently more affordable than housing in surrounding communities. In 1998, the average sales price of a home in Woodburn was \$121,000, compared to \$133,500 in Mt. Angel, and \$161,700 in Silverton.
- Demand for higher-end housing appears to be primarily from empty-nesters at this time. The present housing mix may not provide enough higher-end housing to accommodate professional employees from the types of businesses it hopes to attract. That shortcoming is not fatal: housing markets will respond to demand if serviced land is available.
- Hispanic workers tend to earn lower wages than workers statewide. The 2000 Census indicates that 50% of Woodburn's population was Hispanic. Hispanic households also tend to have larger household sizes.

The relationship between job creation, wages, and housing affordability is an important one. The data on employment trends in Woodburn area suggest that (1) incomes are less than county averages, and (2) that many of the jobs forecast in the area will be lower wage jobs. While housing in Woodburn is relatively affordable compared to other nearby communities, the structure of new job creation could lead to a greater affordability gap than exists today.

- The results of the OHCS model suggest that a substantial number of lower cost units will be needed. For example, 1,067 dwelling units will be needed for households with incomes under \$20,000. This is 45% of the City's total estimated housing need. While cost savings are possible, it is difficult to significantly decrease the cost of construction. Increasing wages is another strategy to bringing housing costs more in line with wages.
- Economic development strategies pursued by the City could change the distribution of housing need. For example, successfully recruiting a high-wage manufacturing plant could create additional need for owner-occupied dwelling units in the \$187,000 and over category.

TRANSPORTATION

Improved I-5 access to and from potential development sites is critical for economic development in Woodburn. Transportation plans have found that the single interchange at I-5 / Highway 214 serving Woodburn is inadequate in its current configuration to serve future development in the City, both in terms of capacity and geometry. With its location in the northwest portion of the City, the current interchange is not positioned to provide adequate access to the undeveloped land in the southern portion of Woodburn. Moreover, the distance to the nearest I-5 interchanges is substantial: 8 miles to the south, and 7 miles to the north. Thus, other interchanges probably do not provide viable transportation alternatives for the types of businesses likely to locate in Woodburn.

It appears unlikely that a second interchange on I-5 near Woodburn will be built in the 20-year planning horizon. In the absence of a second interchange, the best alternative for improved access to I-5 is to improve or develop roadways to cross I-5 north or south of the existing interchange. These roadways would connect with Butteville Road (which may also need improvement) to access the I-5 interchange from the west, which is far less congested than approaching the interchange from the east.

Woodburn's TSP identifies several alternatives for a proposed South Arterial that would proceed west from Hwy 99E to cross I-5 and connect with Butteville Road or Hwy 214. On the north, Crosby Road could be improved and extended to cross the railroad tracks and connect with Hwy 99E, providing a north connection from Hwy 99E across I-5 to connect with Butteville Road and the I-5 interchange. With both of these options,

connectivity and access
necessary to support development in Woodburn.

The Woodburn TSP factored employment increases into transportation modeling. The TSP forecasts about 1,100 new employees west of I-5 and about 2,100 east of I-5. Designation of future lands available for employment should consider these figures.

Improvements to the I-5/214 interchange, in conjunction with improvements to Highway 214 between Oregon Way and Woodland Avenue, may provide additional employment capacity over the planning horizon. The traffic operations analysis of the partial cloverleaf interchange improvement (including four through lanes on Highway 214 across the interchange) revealed a reserve capacity in 2020 of about 630 vehicle trips during the weekday PM peak hour. This reserve capacity translates into about an added 1,230 employees of general light industrial development, or 1,370 employees of general office development, over and above the employment increases assumed in the 2020 Interchange Refinement Plan analysis.

LABOR FORCE

Average levels of workforce education and training are below state averages and those of the Portland and Salem urban areas. The age distribution, years of education completed, and occupational mix of Woodburn's population suggest that the local labor force may lack the skills required by high-wage target industries. If firms identified in the target industries analysis locate in Woodburn, the data suggest that these firms will need to look outside of Woodburn for skilled labor (at least in the short run), that Woodburn will need to attract more highly-skilled residents, or improve the education and training of existing residents.

Labor supply is an obstacle to the type of development Woodburn hopes to attract, but probably not an insurmountable one. The industries in the target groups we identified vary substantially in size and labor requirements. Many bring a substantial portion of their labor with them (e.g., managers and engineers), which means that public policy to encourage a good supply of housing can also be an economic development policy.

GOALS AND POLICIES RELATED TO ECONOMIC DEVELOPMENT

Adoption of an economic development strategy to attract high-wage employers may require several changes to Woodburn's Comprehensive Plan. Depending on the economic development strategy the City agrees on, policy changes may take the form of revisions to existing policies that define where and what types of commercial and industrial development may occur, or new policies intended to attract specific types of industries or to focus public investments in key areas. Given the results of buildable land analysis, combined with the site requirements of the types of industries the City may

want to attract, changes to plan designations and a UGB expansion are also possible. Access issues at I-5 are critical, so policies and specific actions to address transportation problems will also be required (which may mean simply having economic development policies reinforce commitment to the policies and investments specified in the City's Transportation System Plan).

Policies will be examined in detail in the next phase of the study (economic vision and development strategies).

QUALITY OF LIFE

Many households want the combination of proximity to larger cities and a small-town or rural lifestyle. Though Woodburn shares these quality of life attributes with other communities in the Willamette Valley, that combination will probably become increasingly scarce as population growth continues. A challenge for Woodburn will be maintaining the qualities of a small town while accommodating population and employment growth.

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City Goals for Economic Development

The City of Woodburn's Comprehensive Plan contains many goals and policies that relate to economic development. This Appendix lists the key goals and policies in the Comprehensive Plan, with the goal or policy number shown for cross-referencing.

Overall, Woodburn's Comprehensive Plan goals and policies are supportive of economic development. They seek to ensure that sufficient land is available for economic growth, that development occurs in an orderly fashion that is coordinated with public service provision, and that the traffic and pollution impacts of growth are mitigated. While being generally supportive, changes to these goals and policies may be needed if Woodburn seeks to adopt new economic development strategies. Potential amendments to the Comprehensive Plan will be addressed briefly in Chapter 6 and in detail in the Development Strategy report that will follow this Economic Opportunities Analysis.

Commercial land development

- B-1. The City should at all time have sufficient land to accommodate the retail needs of the City and the surrounding market area. The City presently has four major commercial areas: 99E, I-5 Interchange, the downtown area, and the 214/211/99E four corners intersection area. No new areas should be established.
- B-2. Lands for high traffic generating uses (shopping centers, malls, restaurants, etc.) should be located on well improved arterials.
- B-3. Strip zoning should be discouraged as a most unproductive form of commercial land development. ... Commercial developments or commercial development patterns which require the use of the private automobile shall be discouraged.
- B.5 ...Downtown redevelopment should be emphasized and the City should encourage property owners to form a local improvement district to help finance downtown improvements.

Industrial land use

- C-1. It is the policy of the City to provide for developments that, whenever possible, will allow residents of the City of Woodburn to work in Woodburn and not have to seek employment in other areas.
- C-5. Industries which, through their operating nature, would contribute to a deterioration of the environmental quality of air, land,

city limits.

- **C-6. The industrial park concept is one which the City deems is the most desirable form of industrial development. Whenever possible the industrial park concept will be encouraged in an attractive and functional design.**
- **C-8. Industrial lands should be protected from encroachment by commercial or other uses...**
- **C-9. The industries attracted and encouraged by the City to locate in Woodburn should generate jobs that would upgrade the skills of the local labor pool.**

Growth

- **L-1. The City's goal is to grow to a population of approximately 26,000 by the year 2020. This growth shall be orderly and accompanied by the necessary public services...**
- **L-4. The goal is to limit the amount of vacant land within the City in order to enjoy the benefits of an orderly development pattern, that reduces the rate that farm land is converted to urban use and the optimum use of public service and utility capacity.**
- **L-11. The goal is to accommodate industrial and commercial development that provides local employment but does not require special community financial incentives.**

Downtown design and conservation (DDCD)

- **P-1-2. Encourage a balanced financing plan to assist property owners in the repair and rehabilitation of structures. The Plan may include establishment of the following:**
 - **Provide on-going investment in downtown improvements.**
 - **Economic Improvement District—a designated area, within which all properties are taxed at a set rate applied to the value of the property with the tax monies used in a revolving loan fund for building maintenance, and improvement.**
 - **Local, State, and National Historic District—a designated district within which resources, and properties are inventoried and identified for historic preservation.**
 - **Establish a "501 C-3" tax exempt organization for the purpose of qualifying for grants.**

- Analyze the feasibility of establishing an urban renewal district as a long-term funding source for Downtown improvements.
- Adopt a capital improvement program and funding strategy for Downtown improvements.

Descriptions of Target Industries

This appendix provides a description of the industries identified as target industries in Chapter 4, specifically in Table 4-4. These descriptions are from the Standard Industrial Classification manual, as reproduced on the internet by the Occupational Safety and Health Administration of the U.S. Department of Labor at <http://www.osha.gov/cgi-bin/sic/sicser5>.

INDUSTRY 27: PRINTING, PUBLISHING, AND ALLIED INDUSTRIES

This industry includes establishments engaged in printing by one or more common processes, such as letterpress; lithography (including offset), gravure, or screen; and those establishments which perform services for the printing trade, such as bookbinding and platemaking. This industry also includes establishments engaged in publishing newspapers, books, and periodicals, regardless of whether or not they do their own printing. News syndicates are classified in Services, Industry 7383. Establishments primarily engaged in textile printing and finishing fabrics are classified in Industry 22, and those engaged in printing and stamping on fabric articles are classified in Industry 2396. Establishments manufacturing products that contain incidental printing, such as advertising or instructions, are classified according to the nature of the products for example, as cartons, bags, plastics film, or paper.

INDUSTRY 32: STONE, CLAY, GLASS, AND CONCRETE PRODUCTS

This industry includes establishments engaged in manufacturing flat glass and other glass products, cement, structural clay products, pottery, concrete and gypsum products, cut stone, abrasive and asbestos products, and other products from materials taken principally from the earth in the form of stone, clay, and sand. When separate reports are available for mines and quarries operated by manufacturing establishments classified in this industry, the mining and quarrying activities are classified in Division B, Mining. When separate reports are not available, the mining and quarrying activities, other than those of Industry 3295, are classified herein with the manufacturing operations.

If separate reports are not available for crushing, grinding, and other preparation activities of Industry 3295, these establishments are classified in Division B, Mining.

INDUSTRY 34: FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND TRANSPORTATION EQUIPMENT

This industry includes establishments engaged in fabricating ferrous and nonferrous metal products, such as metal cans, tinware, handtools, cutlery, general hardware, nonelectric heating apparatus, fabricated structural metal products, metal forgings, metal stampings, ordnance (except vehicles and guided missiles), and a variety of metal and wire products, not elsewhere classified. Certain important segments of the metal fabricating industries are classified in other industries, such as machinery in Industries 35 and 36; transportation equipment, including tanks, in Industry 37; professional scientific and controlling instruments, watches, and clocks in Industry 38; and jewelry and silverware in Industry 39. Establishments primarily engaged in producing ferrous and nonferrous metals and their alloys are classified in Industry 33.

INDUSTRY 35: INDUSTRIAL AND COMMERCIAL MACHINERY AND COMPUTER EQUIPMENT

This industry includes establishments engaged in manufacturing industrial and commercial machinery and equipment and computers. Included are the manufacture of engines and turbines; farm and garden machinery; construction, mining, and oil field machinery; elevators and conveying equipment; hoists, cranes, monorails, and industrial trucks and tractors; metalworking machinery; special industry machinery; general industrial machinery; computer and peripheral equipment and office machinery; and refrigeration and service industry machinery. Machines powered by built-in or detachable motors ordinarily are included in this industry, with the exception of electrical household appliances. Power-driven handtools are included in this industry, whether electric or otherwise driven. Establishments primarily engaged in manufacturing electrical equipment are classified in Industry 36, and those manufacturing handtools, except powered, are classified in Industry 34.

INDUSTRY 36: ELECTRONIC AND OTHER ELECTRICAL EQUIPMENT AND COMPONENTS, EXCEPT COMPUTER EQUIPMENT

This industry includes establishments engaged in manufacturing machinery, apparatus, and supplies for the generation, storage, transmission, transformation, and utilization of electrical energy. Included are the manufacturing of electricity distribution equipment; electrical industrial apparatus; household appliances; electrical lighting and wiring equipment; radio and television receiving equipment; communications equipment; electronic components and accessories; and other electrical equipment and supplies. The manufacture of household appliances is included in this group, but industrial machinery and equipment powered by built-in or detachable electric motors is classified in Industry 35. Establishments primarily engaged in manufacturing instruments are classified in Industry 38.

INDUSTRY 37: TRANSPORTATION EQUIPMENT

This industry includes establishments engaged in manufacturing equipment for transportation of passengers and cargo by land, air, and water. Important products produced by establishments classified in this industry include motor vehicles, aircraft, guided missiles and space vehicles, ships, boats, railroad equipment, and miscellaneous transportation equipment, such as motorcycles, bicycles, and snowmobiles. Establishments primarily engaged in manufacturing mobile homes are classified in Industry 2451. Establishments primarily engaged in manufacturing equipment used for moving materials on farms; in mines and on construction sites; in individual plants; in airports; or on other locations off the highway are classified in Industry 35.

INDUSTRY 42: MOTOR FREIGHT TRANSPORTATION AND WAREHOUSING

This industry includes establishments furnishing local or long-distance trucking or transfer services, or those engaged in the storage of farm products, furniture and other household goods, or commercial goods of any nature. The operation of terminal facilities for handling freight, with or without maintenance facilities, is also included. Establishments primarily engaged in the storage of natural gas are classified in Industry 4922. Field warehousing is classified in Services, Industry 7389. Establishments of the United States Postal Service are classified in Industry 43.

INDUSTRY 50: WHOLESALE TRADE—DURABLE GOODS

This industry includes establishments primarily engaged in the wholesale distribution of durable goods.

INDUSTRY 51: WHOLESALE TRADE—NON-DURABLE GOODS

This industry includes establishments primarily engaged in the wholesale distribution of non-durable goods.

INDUSTRY 61: NON-DEPOSITORY CREDIT INSTITUTIONS

This industry includes establishments engaged in extending credit in the form of loans, but not engaged in deposit banking.

INDUSTRY 73: BUSINESS SERVICES

This industry includes establishments primarily engaged in rendering services, not elsewhere classified, to business establishments on a contract or fee basis, such as advertising, credit reporting, collection of claims, mailing, reproduction, stenographic, news syndicates, computer programming, photocopying, duplicating, data processing, services to buildings, and help supply services. Establishments primarily engaged in providing engineering,

Industry 87. Establishments which provide specialized services closely allied to activities covered in other divisions are classified in such divisions.

INDUSTRY 80: HEALTH SERVICES

This industry includes establishments primarily engaged in furnishing medical, surgical, and other health services to persons. Establishments of associations or groups, such as Health Maintenance Organizations (HMOs), primarily engaged in providing medical or other health services to members are included, but those which limit their services to the provision of insurance against hospitalization or medical costs are classified in Insurance, Industry 63. Hospices are also included in this industry and are classified according to the primary service provided.

Industry groups 801 through 804 includes individual practitioners, group clinics in which a group of practitioners is associated for the purpose of carrying on their profession, and clinics which provide the same services through practitioners that are employees.

INDUSTRY 87: ENGINEERING, ACCOUNTING, RESEARCH, MANAGEMENT, AND RELATED SERVICES

This industry includes establishments primarily engaged in providing engineering, architectural, and surveying services; accounting, auditing, and bookkeeping services; research, development, and testing services; and management and public relations services.

4-B

WOODBURN POPULATION AND EMPLOYMENT PROJECTIONS 2000-2020

ECONorthwest

ECONOMICS • FINANCE • PLANNING

Phone • (541) 687-0051
FAX • (541) 344-0562
info@eugene.econw.com

Suite 400
99 W. 10th Avenue
Eugene, Oregon 97401-3001

Other Offices
Portland • (503) 222-6060
Seattle • (206) 622-2403

29 April 2002

TO: Greg Winterowd & Tom Armstrong, Winterbrook Planning Services
FROM: Bob Parker and Terry Moore
SUBJECT: WOODBURN POPULATION AND EMPLOYMENT PROJECTIONS, 2000-2020

BACKGROUND

In June 2001, ECONorthwest completed a Goal 9 economic opportunities analysis (EOA) and economic develop strategy for the City of Woodburn. That project was the first step the City took to improve the chances that it will get the type and quality of economic development its citizens desire. It described (1) the City's vision for economic development, (2) issues related to achieving the economic development vision in Woodburn, and (3) recommended economic development policies and other changes to the City's Comprehensive Plan.

The outcome of that project was an economic development strategy that recognizes the City's locational advantages and encourages economic development and growth in the City. The strategy states the City does not want to become a bedroom community and targets specific high-wage industries for future growth.

The EOA and Economic Development Strategy concluded that the City would need additional land to implement the vision described above. The strategy described a number of steps the City needed to accomplish to achieve its economic development vision including seven steps needed for an Urban Growth Boundary amendment. This memorandum addresses the first two steps:

1. Review the City's coordinated population forecast. Actions the City takes to support economic development may lead to population and employment growth beyond that previously forecasted.
2. Review the employment forecast used in the Transportation Systems Plan (TSP). A revised employment forecast has implications for the TSP and housing.

This memorandum presents population and employment projections for the Woodburn UGB for the period 2000 through 2020. The projections are predicated on the City's economic development strategy and assume that land and infrastructure will be available to support development. Specifically, this memo addresses the following:

1. Existing population and employment forecasts. This memo begins with an evaluation of the assumptions underlying current projections and comments on those assumptions given recent population and employment trends.

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2. Revised population and employment projections. This memorandum provides a range of population and employment based on data from the EOA and the City's economic development strategy. In summary, we developed new population and employment forecasts for the Woodburn UGB for the period 2000-2020
3. Allocation of employment to sectors. The employment projection is then allocated by sector (i.e., industrial, services, government, etc.). Finally, the sectors are aggregated into four land use categories: commercial, office, industrial, and public.
4. Implications of population/employment forecast on land need. The memo concludes with a brief review of the impact of revised population and employment on need for land.

In summary, the population and employment forecasts presented in this memorandum are based on the assumption that the City is successful in implementing the economic development strategy adopted in 2001.

METHODS

This section describes the methods used for developing the population and employment projections. Before we describe our methods, it is useful to describe the limitations of small areas forecasts. The fact that PSU significantly underestimated the 2000 population underscores some of the key problems that emerge with small area population estimates and forecasts. Following is a discussion of why small area forecasts are highly uncertain:

- Projections for population in most cities and counties are not based on deterministic models of growth; they are simple projections of past growth rates into the future. They have no quantitative connection to the underlying factors that explain why and how much growth will occur.
- Even if planners had a sophisticated model that links all these important variables together (which they do not), they would still face the problem of having to forecast the future of the variables that they are using to forecast growth (in, say, population or employment). In the final analysis, all forecasting requires making *assumptions* about the future.
- Comparisons of past population projections to subsequent population counts have revealed that even much more sophisticated methods than the ones used in the study "are often inaccurate even for relatively large populations and for short periods of time."¹ The smaller the area and the longer the period of time covered, the worse the results for any statistical method.
- Small areas start from a small base. A new subdivision of 200 homes inside the Portland Urban Growth Boundary has an effect on total population that is almost too small to measure. That same subdivision in Woodburn would increase the

¹Murdock, Steve H., *et al.* 1991. "Evaluating Small-Area Population Projections." *Journal of the American Planning Association*, Vol. 57, No. 4, page 432.

community's housing stock by more than 2%—and population by a similar percentage.

- Especially for small cities in areas that can have high growth potential (e.g., because they are near to concentrations of demand in neighboring metropolitan areas, or because they have high amenity value for recreation or retirement), there is ample evidence of very high growth rates in short-term; there are also cases (fewer) of high growth rates sustained over 10 to 30 years.

Because of the uncertainty associated with small area forecasts, this memorandum presents a range of potential growth rates.

Population

We began the process of forecasting population growth in Woodburn by establishing the range of likely annual average growth rates for total employment over the twenty-year period. We estimated the likely range of growth rates by looking at several indicators:

- *Historical population growth in Woodburn and larger areas.* We used Census data to compare population growth in Woodburn, other incorporated cities in Marion County, all of Marion County, and Oregon over several decades. These data were used to calculate an annual average growth rate for population for several different periods. The annual average growth rate for population in Woodburn was compared to growth rates for population in Marion County, and the State of Oregon.
- *Forecasts of population growth.* We used published population forecasts from the Oregon Office of Economic Analysis to establish the range of expected total employment growth rates for regions of Oregon. The Oregon Office of Economic Analysis (OEA) publishes long-term forecasts of population and total nonfarm employment for Oregon and each individual county. The latest OEA forecast was published in 1997 and covers the 2000–2040 period.²

The first forecast we did was to apply the City's growth rate implied by its county coordinated forecast using the 2000 Census as a base. As mentioned above, PSU significantly underestimated population in 2000. Thus, the 1997 population base figure of 16,150 used in the coordinated forecast is also low.

We used Woodburn's historical population growth relative to Marion County, and Oregon and the forecast employment growth rates in these larger areas to establish a reasonable range of average annual growth rate for total employment in Woodburn over the 2000–2020 period.

Once a range of average annual growth rates for employment was selected, we applied those growth rates to 2000 population in Woodburn to estimate 2020 population.

² The OEA expects to release a draft updated long-term forecast in March 2002. We will incorporate data from this revised forecast if it is released in time to do so.

Employment

We began the process of forecasting employment growth in Woodburn by establishing the range of likely annual average growth rates for total employment over the twenty-year period. We estimated the likely range of growth rates by looking at several indicators:

- *Historical employment growth in Woodburn and larger areas.* We used confidential ES-202 data provided by the Oregon Employment Department to identify the level of covered employment in the 97071 (Woodburn) zip code area in 1990 and 2000. These data were used to calculate an annual average growth rate for covered employment in Woodburn by sector over the 1990–2000 period. The annual average growth rate for total employment in Woodburn was compared to growth rates for total employment in Workforce Region 3 (Marion, Polk, and Yamhill counties), the Portland PMSA (Clackamas, Columbia, Multnomah, Washington, and Yamhill counties in Oregon and Clark County, Washington), and the State of Oregon in the 1990–2000 period. The growth rates in these larger areas were calculated using published covered employment data from the Oregon Employment Department.
- *Forecasts of employment growth.* We used published employment forecasts from the Oregon Employment Department and the Oregon Office of Economic Analysis to establish the range of expected total employment growth rates for regions of Oregon. The Oregon Employment Department publishes 10-year forecasts of employment growth for Workforce Analysis regions (groups of counties), the Portland PMSA, and Oregon. The latest Employment Department forecast was released in July 2001 and covers the 2000–2010 period. The Oregon Office of Economic Analysis (OEA) publishes long-term forecasts of population and total nonfarm employment for Oregon and each individual county. The latest OEA forecast was published in 1997 and covers the 2000–2040 period.³

We used Woodburn's historical employment growth relative to Workforce Region 3, the Portland PMSA, and Oregon and the forecast employment growth rates in these larger areas to establish a reasonable range of average annual growth rates for total employment in Woodburn over the 2000–2020 period.

Once a range of average annual growth rates for employment was selected, we applied those growth rates to 2000 total employment in Woodburn to estimate 2020 total employment. To make this forecast we first adjusted 2000 covered employment in Woodburn to total employment in Woodburn. The 2000 employment data for the 97071 zip code area is *covered* employment—that is, it represents employees covered by unemployment insurance. People working in the area who are not covered by unemployment insurance are primarily proprietors and officers of corporations. We used data from the U.S. Bureau of Economic Analysis to convert covered employment to total employment. Covered employment also does not include seasonal or some part-time farmworkers, but we do not adjust for this because we expect few farmworkers to work within Woodburn's UGB, and these workers are unlikely to create demand for buildable nonresidential land.

³ The OEA expects to release a draft updated long-term forecast in March 2002. We will incorporate data from this revised forecast if it is released in time to do so.

With an estimate of 2000 total employment in Woodburn's UGB, we applied the range of expected growth rates for total employment over the 2000–2020 period to estimate 2020 total employment in the Woodburn UGB area. To estimate 2020 employment by sector we used assumptions about the distribution of 2020 employment in Woodburn based on historical growth trends by sector, the outlook for major industries and employers in Woodburn, and the likely effect of economic development policies and implementation strategies adopted by the City of Woodburn. The City's policies intend to attract high-wage manufacturing and distribution industries; the employment forecasts assume a higher growth rate in the manufacturing sector than would otherwise be expected. The forecasts also assume corresponding decreases in the growth rate of other employment sectors. We compared the resulting level of 2020 employment by sector to the 2000 level by sector to make sure the implied growth rate for each sector was in line with expected trends for that sector.

ORGANIZATION

The remainder of this memorandum is organized as follows:

Population and Employment Trends describes historical population, employment and socioeconomic trends that are relevant to population projections.

Review of City Population and Employment Forecasts comments on the City's coordinated population forecast and employment forecast in light of recent trends.

Population and Employment Projections presents our projections of population and employment in the Woodburn UGB between 2000 and 2020.

Implications of population/employment forecast on land need discusses the general impacts the revised population and employment forecasts will have on land need in Woodburn.

POPULATION AND EMPLOYMENT TRENDS

This section reviews historical population and employment trends in Woodburn. To provide context, we compare Woodburn with Marion County and Oregon.

POPULATION

Population growth in Oregon tends to follow economic cycles. Oregon's economy is generally more cyclical than the nation's, growing faster than the national economy during expansions and contracting more rapidly than the nation during recessions. This pattern is shown in Table 1, which presents data on population in the U.S., Oregon, and selected areas in Oregon over the 1970–2000 period. Table 1 shows Oregon grew more rapidly than the U.S. in the 1970s and 1990s (which were generally expansionary periods) but lagged behind the U.S. in the 1980s. Oregon's slow growth in the 1980s was primarily due to the nationwide recession early in the decade. Oregon's population growth regained momentum in 1987, growing at annual rates of 1.4%–2.9% between 1988 and 1996. The Willamette Valley received over 70% of the state's population growth during this period.

Population growth for Oregon and its regions slowed in 1997, to 1.1% statewide, the slowest rate since 1987. Net migration into Oregon, which is the largest component of population growth, dropped from 35,000 in 1996 to 18,000 in 1999. The reasons most often cited for this slowing of population growth are the recovery of the California economy, the combination of a high cost of living (especially housing) and low wages in Oregon, and a perceived decline in the quality of Oregon's schools.

The Willamette Valley has always been the center of growth in Oregon. The population growth rate in the Willamette Valley has exceeded that of the state in every decade except during the 1970s. Almost 70% of Oregon's population is located in the Willamette Valley, which contains only 14% of the state's land area. Most of the Willamette Valley's population is concentrated in the metropolitan areas of Portland, Salem, and Eugene.⁴

Woodburn and Marion County have grown faster than other areas in Table 1 throughout the 1970–2000 period. Marion County's share of Oregon's population has increased from 7.2% in 1970 to 8.4% in 2000. Woodburn's share of Marion County's population has increased from 5.0% in 1970 to 6.3% in 2000. During the 1990s, Woodburn grew at a rate of 4.1% annually—nearly twice than of Marion County, and more than twice as fast as Oregon.

⁴ The Willamette Valley is composed of Benton, Clackamas, Lane, Linn, Marion, Multnomah, Polk, Washington, and Marion counties.

Table 1. Population in the U.S., Oregon, Willamette Valley, Portland Area, Marion County, and Woodburn, 1970–2000

Area	1970	1980	1990	2000	Avg. Ann. Growth Rate		
					70-80	80-90	90-00
U.S.	203,211,926	226,545,805	248,709,873	281,421,906	1.1%	0.9%	1.2%
Oregon	2,091,385	2,633,156	2,842,321	3,421,399	2.3%	0.8%	1.9%
Willamette Valley	1,446,594	1,788,577	1,962,816	2,380,606	2.1%	0.9%	1.9%
North Valley	1,107,546	1,355,645	1,517,866	1,876,425	2.0%	1.1%	2.1%
Marion County	151,309	204,692	228,483	284,834	3.1%	1.1%	2.2%
Woodburn	7,495	11,196	13,404	20,100	4.1%	1.8%	4.1%

Sources: U.S. Census and Center for Population Research and Census, Portland State University. Average annual growth rates calculated by ECONorthwest.

Notes: The Willamette Valley consists of Benton, Clackamas, Lane, Linn, Marion, Multnomah, Polk, Washington, and Marion Counties. The North Valley consists of Clackamas, Marion, Multnomah, Polk, Washington, and Marion Counties.

Between 1990 and 1999, almost 70% of Oregon's total population growth was from net migration (in-migration minus out-migration), with the remaining 30% from natural increase (births minus deaths). Migrants to Oregon tend to have the same characteristics as existing residents, with some differences—recent in-migrants to Oregon are, on average, younger and more educated, and are more likely to hold professional or managerial jobs, compared to Oregon's existing population. The race and ethnicity of in-migrants generally mirrors Oregon's established pattern, with one exception: Hispanics make up more than 7% of in-migrants but only 3% of the state's population. The number-one reason cited by in-migrants for coming to Oregon was family or friends, followed by quality of life and employment.⁵

Of note is the difference between the 2000 Census count for Woodburn and the Portland State University Center for Population Research and Census 2000 population estimate. The Census indicated that the 2000 population was 20,100, while PSU estimated the 2000 population was 17,840—a difference of 2,260 persons. Applying the Census data yields a 4.1% average annual growth rate between 1990 and 2000; using the PSU estimate yields a 2.9% growth rate. For 2000, the Census, which is a count, is more reliable than PSU, which is an estimate based on additions to the previous Census count (1990).

EMPLOYMENT

Table 2 shows employment growth in the 97071 zip code area (which includes Woodburn and the surrounding area) over the 1990–2000 period. The sectors used in Table 2 are those defined by ODOT for use in transportation planning. Table 2 shows that total employment in the Woodburn area has grown at an average annual rate of 4.4% in the 1990s.

Employment growth in the Woodburn area was led by the Retail sector, which added 1,504 jobs or 51% of total growth in the 1990–2000 period. The Retail sector also led the Woodburn area in the rate of employment growth, with an 8.6% annual average that is over twice the annual average for total employment growth. The Other and Service sectors combined contributed 32% of total employment growth in the Woodburn area and grew at about the same rate as total employment. The Education sector contributed 10% of

⁵ State of Oregon, Employment Department. 1999. *1999 Oregon In-migration Study*.

employment growth in the Woodburn area but had the second-fastest average annual employment growth rate, 6.1%.

Table 2. Covered employment growth by sector in the 97071 zip code area, 1990–2000

Sector	SICs	1990	2000	Growth	AAGR
Agriculture	00-09	949	1,122	173	1.7%
Industrial	10-14, 22, 24-39	1,006	960	-46	-0.5%
Retail	52-59	1,166	2,670	1,504	8.6%
Service	48-49, 60-67, 70-81, 83-89	788	1,207	419	4.4%
Education	82	352	638	286	6.1%
Government	91-94	142	225	83	4.7%
Other	15-17, 19-20, 23, 40-47, 50-51, 95-99	1,149	1,696	547	4.0%
Total		5,552	8,518	2,966	4.4%

Source: ECONorthwest, from confidential ES-202 data provided by the Oregon Employment Department.

Note: Employment in the 97071 zip code area identified by sorting Marion County data by addresses of record. Employers in Woodburn with addresses outside of the 97071 zip code area may not appear in this summary.

Table 3 shows covered employment growth in the Woodburn area, Workforce Region 3 (Marion, Polk, and Yamhill counties), the Portland PMSA, and Oregon over the 1990–2000 period. Table 3 shows that covered employment in the Woodburn area grew at a faster annual average rate than in other areas shown in Table 3. The annual average rate of covered employment in Woodburn was 1.4% to 1.8% faster than in Workforce Region 3, the Portland PMSA, or Oregon (in other words, Woodburn employment grew at a rate roughly 50% greater than employment in those jurisdictions).

Table 3. Covered employment growth in Woodburn, Workforce Region 3, the Portland PMSA, and Oregon, 1990–2000

Area	1990	2000	AAGR
Woodburn	5,552	8,518	4.4%
Workforce Region 3	132,889	172,173	2.6%
Portland PMSA	715,454	962,833	3.0%
Oregon	1,236,243	1,607,911	2.7%

Source: ECONorthwest, from *Oregon Covered Employment and Payrolls by Industry and County* and *Employment and Payrolls in Washington State by County and Industry*.

Note: Workforce Region 3 consists of Marion, Polk, and Yamhill counties. The Portland PMSA consists of Clackamas, Columbia, Multnomah, Washington, and Yamhill counties in Oregon and Clark County, Washington.

REVIEW OF CITY POPULATION AND EMPLOYMENT FORECASTS

Population (expressed as households) and employment forecasts are the key inputs in determining land need. Any forecast is, by definition, uncertain. That uncertainty increases as the geographic region for the forecast decreases and as the duration of the forecast increases.

ORS 195.036 requires counties to “establish and maintain a population forecast for the entire area within its boundary for use in maintaining and updating comprehensive plans” and to “coordinate the forecast with local governments within its boundaries.” The County facilitated a series of meetings during 1997 and 1998, informally called the “Growth Management Forum” where county, city and council of governments staff discussed appropriate projects for the cities in Marion County. Marion County completed this process in October 1998.⁶

There is no statutory requirement for coordinated employment forecasts. Many cities, however, develop employment forecasts for transportation planning purposes. This is the case with Woodburn, which developed an employment forecast during the development of its Transportation System Plan (TSP). Woodburn’s TSP was adopted in 1996, and revised again in 2001.

Population

The coordinated 2020 population forecast for Woodburn is 26,290. Table 4 shows the coordinated population forecasts for Marion County and incorporated cities within Marion County. The County adopted the forecasts in 1998; the forecasts use a 1997 base year and extend to 2020, a 23-year period.

The Office of Economic Analysis forecast 2020 population in Marion County to be 350,952. This figure serves as the control total for the coordinated population forecasts—all of the population forecast for incorporated cities and rural areas needs to sum to this total. Given the control total, and the process used to coordinate the forecasts, the city-level forecasts are more of an allocation than a forecast.

⁶ Marion County Ordinance Number 1091, October 21, 1998.

Table 4. Marion County coordinated population forecasts, Marion County and incorporated cities, 1997-2020

City	1997 (PSU Est.)	2000 (Census)	2020	AAGR 97-2020
Aumsville	2,820	3,003	5,010	2.5%
Aurora	675	655	930	1.4%
Detroit	380	262	535	1.5%
Donald	630	608	1,050	2.2%
Gates	489	471	800	2.2%
Gervais	1,220	2,009	2,168	2.5%
Hubbard	2,205	2,483	3,105	1.5%
Idanha	200	232	230	0.6%
Jefferson	2,300	2,487	2,895	1.0%
Mill City	310	1,537	420	1.3%
Mt Angel	3,020	3,121	4,365	1.6%
St Paul	350	354	475	1.3%
Salem/Keizer	152,530	169,127	255,338	2.3%
Scotts Mills	315	312	420	1.3%
Silverton	6,675	7,414	9,965	1.8%
Stayton	6,290	6,816	9,250	1.7%
Sublimity	2,145	2,148	3,590	2.3%
Turner	1,330	1,199	2,363	2.5%
Woodburn	16,150	20,100	26,290	2.1%
City Totals	200,034	224,338	329,199	2.2%
Unincorporated	67,666	60,496	21,753	-4.8%
Marion County	267,700	284,834	350,952	1.2%

Source: Marion County

The forecast uses a 1997 base population of 16,150 persons. Given Woodburn's *assumed* year 2000 population of 17,840 the coordinated forecast translates into an average annual growth rate of 2.0% over the 2000–2020 period. This rate exceeds the forecast annual average population growth rate in Marion County (1.4%), the North Valley region (1.3%) and Oregon (1.2%), but is less than the 4.1% annual average growth rate experienced in Woodburn in the 1990–2000 period.

A letter dated December 8, 1997 from Rob Hallyburton to Mayor Nancy Kirksey describes the process the County used to develop the preliminary coordinated population forecasts for Marion County and its incorporated cities. An attachment to that letter describes the method used to develop the city population projections. The County used a method developed by the Oregon Office of Economic analysis. That process projected to a 2015 county control total of 354,561, is as follows:

1. The historical growth rates for each city, in five-year increments back to 1960-65, were calculated.
2. Weights were assigned to the average annual growth rates giving the most recent growth rates the most emphasis. The weights were based on a calculation "last year of the five-year period minus 1960." Therefore the 1960-65 period was weighted 5 (1965 minus 1960) and 1990-95 was weighted 35 (1995 minus 1960). A weighted

average annual growth rate for each city for the period 1960 to 1995 was then calculated.

3. The weighted city growth rate projections were finished by assuming the gap between the city weighted average growth rate and the county weighted average growth rate would be *half closed* by the end of the projection period. For example, the weighted average growth rate for the county is 3.18%, and the weighted average rate for Aumsville is 5.10%. The difference, 1.92, is halved (0.96) and added back to the lower figure (the county's 3.18% in this case), for a projected average growth rate of 4.14%.
4. The weighted average annual growth rate for each city was then applied, assuming linear growth. The sum of the city projections did not, however, agree with the OEA county totals for each year of the projection. An adjustment factor was then calculated by dividing the smaller of the two by the larger (in each case the OEA projection was smaller).
5. The final step of the project employed by OEA included discussing the results with the affected jurisdictions, and making adjustments, as they found appropriate.

The description should make it clear that the forecast method is logical but, ultimately, arbitrary⁷: different year and different weights could have been used; there is not explicit consideration of factors that might cause growth rates to be different in the future. The method resulted in a 2015 population forecast of 30,319 persons for Woodburn after step three of the process described above. This equates to a 3.42% average annual growth rate. Applying the adjustment factor described in step four resulted in a 2015 population forecast of 23,769 persons, or a 1.3% average annual growth rate. The weighted average annual growth rate for Marion County (step 2) was 3.18%, but the OEA rate was a much lower rate of about 1.6%.⁸

It is important to note that step 4 of this method uses a somewhat arbitrary approach to adjusting local growth rates to get the city forecasts to sum to the county control total. In short, the adjusted average annual growth rate of 1.73% is inconsistent with historical population trends and results in figures that are likely to be systematically low. The County's numbers show the 2000 forecast for Woodburn was 17,653, a figure that fell far below the 2000 Census count of 20,100. Even the unadjusted forecast underestimated the 2000 population, resulting in a 2000 forecast of 18,309 persons.

The letter of December 8, 1997, also includes a set of population projections for the period 1998-2020 based on three different growth rates and two base populations (16,150 and 18,744). Table 5 summarizes those projections.

⁷ By "arbitrary" we do not mean wrong, unsupportable, or capricious; we mean that many assumptions were made where other assumptions could be justified equally well.

⁸ There are some discrepancies in the figures presented in the memo and the final forecasts that we cannot explain. The adopted average annual growth rate for Marion County is 1.53%; the preliminary forecasts result in a slightly higher growth rate.

With the exception of the Marion County proposal of 2.2% annual growth for Woodburn, all of the projections result in 2020 populations that are higher than the adopted population forecast of 26,290 persons. The December 8 materials give no justification for why Marion County staff proposed a 2.2% average annual growth rate for Woodburn when the evidence clearly indicates the City has grown at much higher rates both in the short term (1990-95) and long term (1960-95).

Part of the rationale probably lies in the OEA control rate of 1.53%. Because the County is forecast to growth at a slower rate, having city rates—particularly in larger cities—that greatly exceed that rate will require other cities to adopt lower rates.

Table 5. Woodburn population projections, 1998-2020, Projections developed by Marion County staff

Scenario	1998	2000	2005	2010	2015	2020
Base population of 16,150						
Growth rate of 2.2% (Marion County Proposal)						
Base population	16,150	16,868	18,897	20,969	23,380	26,067
Growth		718	2,029	2,072	2,411	2,687
Growth rate of 2.92% (Average for Period 1990-1995)						
Base population	16,150	17,107	19,755	22,812	26,343	30,421
Growth		957	2,648	3,057	3,531	4,078
Growth rate of 3.4% (Historical Average for Period 1960-1995)						
Base population	16,150	17,267	20,409	24,122	28,512	33,700
Growth		1,117	3,142	3,713	4,390	5,188
Base Population of 18,774						
Growth rate of 2.2% (Marion County Proposal)						
Base population	18,774	19,609	21,863	24,376	27,718	30,302
Growth		835	2,254	2,513	3,342	2,584
Growth rate of 2.92% (Average for Period 1990-1995)						
Base population	18,774	19,886	22,964	26,519	30,623	35,363
Growth		1,112	3,078	3,555	4,104	4,740
Growth rate of 3.4% (Historical Average for Period 1960-1995)						
Base population	18,774	20,072	23,725	28,042	33,144	39,175
Growth		1,298	3,653	4,317	5,102	6,031

Source: Marion County

In summary, the methods used by County to develop the coordinated population forecast for Woodburn do not recognize historical growth patterns or the City's economic development vision. They arrive at an average annual growth rate of about 2.2% without explaining the rationale for choosing that rate. Implicitly one of the reasons was to get all of the City forecasts to sum to the County control total. The 2020 forecast for Woodburn would be more accurately called an allocation based on a political process that has little to do with sound forecasting techniques.

Employment

To our knowledge a coordinated forecast of employment in Woodburn has not been developed. To estimate future travel demand, the *Woodburn Transportation System Plan* (June 1996) estimated employment growth of 3,221 over the 1991–2020 period. With a 1991

employment level of 5,045 this translates into a 2020 employment level of 8,266 or an average annual growth rate of 1.7%. This rate exceeds the forecast annual average employment growth rate in Marion County (1.2%), the North Valley region (1.0%) and Oregon (1.0%).

If the historical trends implied by the data in Tables 2 and 3 were used for forecasting, the forecast of employment growth in Woodburn would be higher.

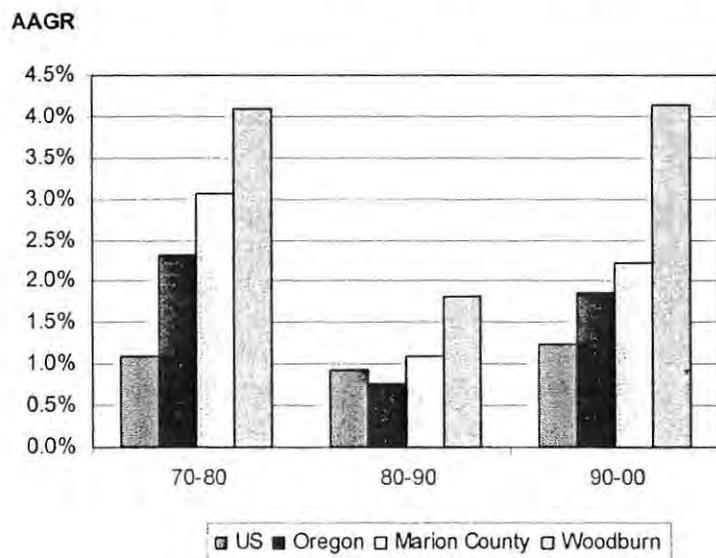
REVISED POPULATION AND EMPLOYMENT PROJECTIONS

This section presents revised population employment projections for the Woodburn Urban Growth Boundary for the period from 2000 to 2020. The projections are based on the methods described earlier in this memorandum and result in a range of possible growth rates.

Population

Figure 1 shows that Woodburn has historically grown at rates faster than larger geographic areas. Despite the recession Oregon experienced during the 1980s, Woodburn continued to grow at rates more than twice that of the state. This suggests that Woodburn's location and other factors have provided the City with a comparative growth advantage.

Figure 1. Historical population growth rates, by decade 1970-2000



One common approach to projecting population is the ratio method. This method assumes that the ratio between the population of a smaller and larger geographic area will remain constant over time, and then forecasts the population of the smaller area as a percentage of a forecast for a larger area. Table 6 shows historical and forecast population for Marion County and Woodburn and the percent of County population accounted for by Woodburn. The results show a trend where Woodburn accounts for increasing share of about 0.5% of the County's population each decade. In summary, Woodburn's share of Marion County

population increased from 5.0% in 1970 to 7.1% in 2000. The 2020 Coordinated forecast ignores this trend and actually assumes that Woodburn will account for a slightly smaller share of Marion County's population.

Table 6. Ratio of Woodburn to County population, 1970-2000 and 2020

Area	Historical				Forecast
	1970	1980	1990	2000	2020
Marion County	151,309	204,692	228,483	284,834	378,208
Woodburn	7,495	11,196	13,404	20,100	26,290
% of County Pop	5.0%	5.5%	5.9%	7.1%	7.0%

Source: US. Census, Marion County Coordinated Population forecast; analysis by ECONorthwest

Table 7 shows population projections for the Woodburn UGB using several different methods. The methods result in average annual growth rates from 1.43% to 4.13%. Of note is the second method that applies Woodburn's current coordinated growth rate of 2.1% to the 2000 population base of 20,100. This increases the 2020 forecast from 26,290 to 30,459 persons—an increase of over 4,000 persons.

Table 7. Woodburn population projections using different methods, 2000-2020

Method	2000	2005	2010	2015	2020	AAGR
Adopted	17,210	19,133	21,271	23,152	26,290	2.10%
Adopted (2000 base pop)	20,100	22,301	24,743	27,453	30,459	2.10%
2000 Ratio (2000 base pop)	20,100	21,576	23,161	24,863	26,689	1.43%
2000 Increasing ratio (2000 base pop)	20,100	22,391	24,943	27,786	30,952	2.18%
1990-2000 AAGR	20,100	24,614	30,141	36,910	45,198	4.13%
1970-2000 AAGR	20,100	23,692	27,926	32,916	38,798	3.34%

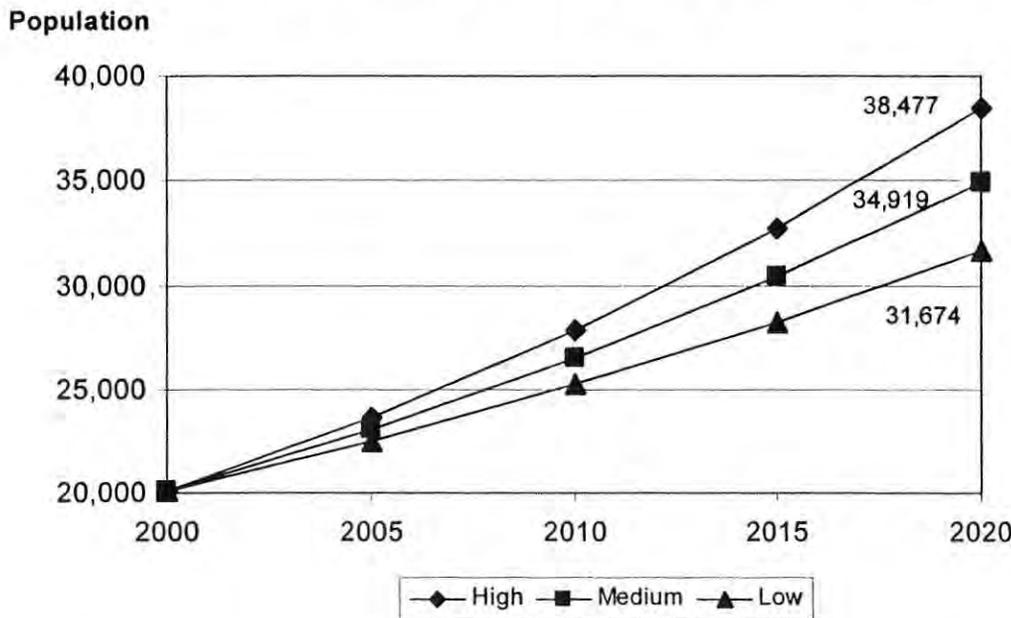
Source: Marion County Coordinated Population forecast; ECONorthwest

The "Adopted" projection is obviously flawed: not because it is conceptually flawed, but because its starting population has been shown by the 2000 Census to be incorrect. All the other forecasts are more or less reasonable in concept. They probably bound the range of future growth, but the boundaries are wide (from 6,000 to 25,000 new people). Narrowing the range requires more thinking, assumptions, and decisions. One must understand that the numbers in Table 7 are really just arithmetic manipulations: assumptions about growth rates. The real issue is: what factors would cause a future growth rate to be approximately equal to, higher, or lower than rates observed in the past?

From that perspective, most of the evidence we evaluated about growth and the economy in Woodburn (see the City's Economic Opportunity Analysis, 2001) suggests that it will continue to grow faster than the average for Marion County. We think a reasonable range of annual population growth rate assumptions for Woodburn is 2.2% to 3.2%. Figure 2 shows the results of applying a 2.3% (low), 2.8% (medium), and 3.3% (high) average annual growth rate to the 2000 base population of 20,100. All of the scenarios use a compounding method.

The low growth scenario results in a 2020 population projection of 31,64, compared to the coordinated forecast of 26,290. The high rate assumption results in a 2020 population of 38,477, while the medium rate assumption results in a 2020 population of 34,674.

Figure 2. Revised Woodburn UGB population forecast, 2000-2020, low (2.3% AAGR), medium (2.8%) AAGR, and high (3.3% AAGR) assumptions



That wide range of forecasts is often disappointing to planners, elected officials, and citizens: should we be able to do a better job? The answer is "no," and the description of the problems with forecasting for small areas on page 2 of this memorandum explains why. The future is uncertainty; a range of forecasts reflects that uncertainty; a single point-estimate does not.

Employment

Table 3 does not show an employment forecast for Woodburn because the State of Oregon does not produce employment forecasts for areas smaller than counties or regions (groups of counties). Table 3 shows that the annual average rate of covered employment growth in Woodburn was 1.4% to 1.8% faster than in Workforce Region 3, the Portland PMSA, or Oregon over the 1990-2000 period. If this pattern persists, then the forecasts shown in Table 3 suggest that employment in Woodburn will grow at an average annual rate of 2.6% to 2.9% in the 2000–2010 period or 2.3% to 3.0% in the 2000 to 2020 period.

We expect the pattern of faster employment growth in Woodburn than in Workforce Region 3, the Portland PMSA, and Oregon to continue over the 20-year forecast period for several reasons:

- Woodburn is at the periphery of the Portland-Vancouver and Salem metropolitan areas, and it is typical for small towns at the periphery of urban areas to grow faster than the urban area as a whole.

- Reluctance and inability to expand Portland's Urban Growth Boundary will limit the supply of greenfield commercial and industrial development sites in the Portland area. Woodburn is well-poised to attract a share of commercial and industrial development that might otherwise occur in the Portland area because of its location near Portland, access to I-5, and supportive policies that will create development sites and encourage development.

In this context, given historical growth rates and forecast growth for Workforce Region 3 and the Portland PMSA, we expect employment Woodburn to grow at an average annual rate of 2.3% to 3.0% over the 20-year planning period. That range is similar to the one we recommend for population. The implication is that Woodburn will be adding jobs at about the same rate that it will be adding population, which is consistent with Woodburn's goals (it does not want to become a bedroom community, which would mean population would be growing at a significantly greater rate than employment). Since we can imagine combinations of economic factors and public policy (both state and local) that could cause the population growth rate to be either higher (bedroom community) or lower (siting of large industrial or commercial employers) than the employment growth rate, assuming them to be equal for the purposes of long-run planning seems reasonable.

To apply this range of growth rates to Woodburn's employment in 2000, we must adjust data in Table 8 to reflect total rather than covered employment. Table 8 includes only *covered* employment, which consists of employees covered by unemployment insurance laws. Covered employment omits several categories of workers, most notably sole proprietors and corporate officers who are not covered by unemployment insurance laws. Analysis of employment data from the U.S. Bureau of Economic Analysis, which reports both wage and salary employment (covered) and total employment, shows that nonfarm wage and salary employment was 82% of nonfarm total employment in 1998. We do not make any adjustments for farm employment on the assumption that there will be little growth in farm employment inside Woodburn' UGB.

Table 8 uses this 82% ratio to convert Woodburn's covered employment in 2000 (8,518) to total employment in 2000 (10,388). With this baseline total employment, Table 8 uses average annual employment growth rates at the low (2.3%), medium (2.65%), and high (3.0%) end of the range of expected employment growth rates to forecast Woodburn's total employment in 2020. This results in a forecast of total 2020 employment in the Woodburn UGB of 16,370 (low), 17,527 (medium), or 18,762 (high).

Table 8. Forecast total employment in Woodburn's UGB, 2000-2020

Baseline Employment 2000	
Covered Employment	8,518
Covered/Total Employment	0.82
Total Employment	10,388
Forecast Employment 2020	
Low-2.3%	16,370
Medium-2.65%	17,527
High-3.0%	18,762
Employment Growth 2000-2020	
Low	5,982
Medium	7,139
High	8,374

Source: ECONorthwest.

To allocate expected total employment growth in Woodburn to employment sectors, the trend in shares by sector over the 1990-2000 period and expected future trends in employment by sector were used to make assumptions about the distribution of employment by sector in 2020. The result of applying these assumptions to expected employment growth in Woodburn is shown in Table 9.

Table 9. Employment by sector in Woodburn's UGB, 2000-2020

Sector	Employment Share			2020 Employment		
	1990	2000	2020	Low	Medium	High
Agriculture	17%	13%	5%	819	876	938
Industrial	18%	11%	16%	2,619	2,804	3,002
Retail	21%	31%	34%	5,566	5,959	6,379
Service	14%	14%	16%	2,619	2,804	3,002
Education	6%	7%	8%	1,310	1,402	1,501
Government	3%	3%	3%	490	527	563
Other	21%	20%	18%	2,947	3,155	3,377
Total	100%	100%	100%	16,370	17,527	18,762

Source: 1990 and 2000 employment shares by ECONorthwest from confidential ES-202 data provided by the Oregon Employment Department. Year 2020 employment distribution provided by ECONorthwest.

Table 10 takes the forecast 2020 employment by sector in Table 9 and uses 2000 employment by sector to calculate employment growth by sector in Woodburn in the 2000-2020 period. To make this calculation, covered 2000 employment by sector from Table 3 must be converted to total 2000 employment by sector using the 82% ratio applied in Table 9.

Table 10. Employment growth by sector in Woodburn's UGB, 2000–2020

Sector	Covered 2000	Total 2000	Employment Growth 2000–2020		
			Low	Medium	High
Agriculture	1,122	1,368	-549	-492	-430
Industrial	960	1,171	1,448	1,633	1,831
Retail	2,670	3,256	2,310	2,703	3,123
Service	1,207	1,472	1,147	1,332	1,530
Education	638	778	532	624	723
Government	225	275	215	252	288
Other	1,696	2,068	879	1,087	1,309
Total	8,518	10,388	5,982	7,139	8,374

Source: ECONorthwest.

Employment growth by sector in Table 10 was allocated to four categories for use in projecting the demand for non-residential land in Woodburn: Commercial, Office, Industrial, and Public. The sectors included in each land use category are:

- Commercial: Retail
- Office: Service
- Industrial: Agriculture, Industrial, and Other
- Public: Education and Government

The results of this allocation are shown in Table 11.

Table 11. Employment growth in Woodburn's UGB by land use category, 2000–2020

Land Use Category	Employment Growth 2000–2020		
	Low	Medium	High
Commercial	2,310	2,703	3,123
Office	1,147	1,332	1,530
Industrial	1,778	2,228	2,710
Public	747	876	1,011
Total	5,982	7,139	8,374

Source: ECONorthwest.

APPENDIX: HISTORICAL POPULATION DATA

Table A-1. Historic population trends, Marion County and Marion County cities, 1900-2000

City	1900	1920	1930	1940	1950	1960	1970	1980	1990	2000
Aumsville		171	153	174	281	300	590	1,432	1,650	3,003
Aurora	122	229	215	228	242	274	306	523	567	655
Detroit						206	328	367	331	262
Donald		126	114	164	187	201	231	267	316	608
Gates						189	250	455	499	471
Gervais	224	268	254	332	457	438	746	799	992	2,009
Hubbard	213	320	330	387	493	526	975	1,640	1,881	2,483
Idanha					442	295	280	319	289	232
Jefferson	273	417	391	479	636	716	936	1,702	1,805	2,487
Keizer									21,884	32,203
Mill City						1,289	1,451	1,565	1,555	1,537
Mt Angel	537	936	823	1,032	1,315	1,428	1,973	2,876	2,778	3,121
St Paul		160	148	183	226	254	346	312	322	354
Salem	4,258	17,679	26,266	30,908	40,087	45,245	62,960	89,233	107,793	136,924
Scotts Mills		208	153	227	217	155	208	249	283	312
Silverton	656	2,251	2,462	2,925	3,146	3,081	4,301	5,168	5,635	7,414
Stayton	324	649	797	1,085	1,507	2,108	3,170	4,396	5,011	6,816
Sublimity		172	214	280	367	490	634	1,077	1,491	2,148
Turner		289	283	414	610	770	846	1,116	1,218	1,199
Woodburn	939	1,656	1,675	1,982	2,395	3,120	7,495	11,196	13,404	20,100
Marion County	27,713	47,187	60,541	75,246	101,401	120,888	151,309	171,700	230,028	284,834
Oregon	413,536	783,389	953,786	1,089,684	1,521,341	1,768,687	2,091,533	2,633,105	2,842,321	3,421,399
Percent Change										
Aumsville			-11%	14%	61%	7%	97%	143%	15%	82%
Aurora		88%	-6%	6%	6%	13%	12%	71%	8%	16%
Detroit							59%	12%	-10%	-21%
Donald			-10%	44%	14%	7%	15%	16%	18%	92%
Gates							32%	82%	10%	-6%
Gervais		20%	-5%	31%	38%	-4%	70%	7%	24%	103%
Hubbard		50%	3%	17%	27%	7%	85%	68%	15%	32%
Idanha						-33%	-5%	14%	-9%	-20%
Jefferson		53%	-6%	23%	33%	13%	31%	82%	6%	38%
Keizer										47%
Mill City							13%	8%	-1%	-1%
Mt Angel		74%	-12%	25%	27%	9%	38%	46%	-3%	12%
St Paul			-8%	24%	23%	12%	36%	-10%	3%	10%
Salem		315%	49%	18%	30%	13%	39%	42%	21%	27%
Scotts Mills			-26%	48%	-4%	-29%	34%	20%	14%	10%
Silverton		243%	9%	19%	8%	-2%	40%	20%	9%	32%
Stayton		100%	23%	36%	39%	40%	50%	39%	14%	36%
Sublimity			24%	31%	31%	34%	29%	70%	38%	44%
Turner			-2%	46%	47%	26%	10%	32%	9%	-2%
Woodburn		76%	1%	18%	21%	30%	140%	49%	20%	50%
Marion County		70%	28%	24%	35%	19%	25%	13%	34%	24%
Oregon		89%	22%	14%	40%	16%	18%	26%	8%	20%

4-C

**WOODBURN
OCCUPATION/WAGE
FORECAST**

ECONorthwest

ECONOMICS • FINANCE • PLANNING

Phone • (541) 687-0051
FAX • (541) 344-0562
info@eugene.econw.com

Suite 400
99 W. 10th Avenue
Eugene, Oregon 97401-3001

Other Offices
Portland • (503) 222-6060
Seattle • (206) 622-2403

20 March 2003

TO: Greg Winterowd
FROM: Bob Parker
SUBJECT: WOODBURN OCCUPATION/WAGE FORECAST

BACKGROUND

In 2001, ECONorthwest and WPS completed an Economic Opportunities Analysis (EOA) for the City of Woodburn. The EOA included a local economic development strategy that was adopted by the Woodburn City Council. That strategy requires substantial amendments to the City's planning documents, including justification for an Urban Growth Boundary expansion.

In early 2002, Winterbrook Planning (Winterbrook) began work with the City to prepare the necessary plan amendments and findings to justify the UGB expansion. As a part of Winterbrook's preliminary work, ECO developed revised population and employment forecasts. To supplement previous work conducted by ECO, Winterbrook requested ECONorthwest complete additional research on three issues:

1. The impact the City's economic development strategies will have on household incomes;
2. Demand for non-residential land implied by the revised employment forecast; and
3. Site needs for industries targeted as part of the City's economic development strategy.

This memorandum addresses the first task: the impact the City's economic development strategies will have on household incomes. The second and third tasks are addressed in separate memoranda.

METHOD

The Oregon Employment Department collects wage data for occupations. To match occupational wage data to the employment forecast for Woodburn, we had to convert employment by industry in the forecast to employment by occupation. To make this conversion, the Oregon Employment Department provided ECONorthwest with data estimating 2000 employment by occupation for each industry in Workforce Analysis Region 3, which consists of Marion, Polk, and Yamhill County. (That is the smallest geography for

which the data is available.) The occupational employment data also includes a forecast of occupational employment by industry for 2010.

ECONorthwest grouped occupational employment by industry into occupational employment by the seven economic sectors used in our employment forecast for Woodburn: Agriculture, Industrial, Retail, Service, Education, Government, and Other. The industries included in these sectors (as defined by their Standard Industrial Classification at the two-digit level) is shown in Table 1.

Table 1. Industries included in sectors used for Woodburn employment forecast

Sector	SICs
Agriculture	00-09
Industrial	10-14, 22, 24-39
Retail	52-59
Service	48-49, 60-67, 70-81, 83-89
Education	82
Government	91-94
Other	15-17, 19-20, 23, 40-47, 50-51, 95-99
Total	

Source: ECONorthwest.

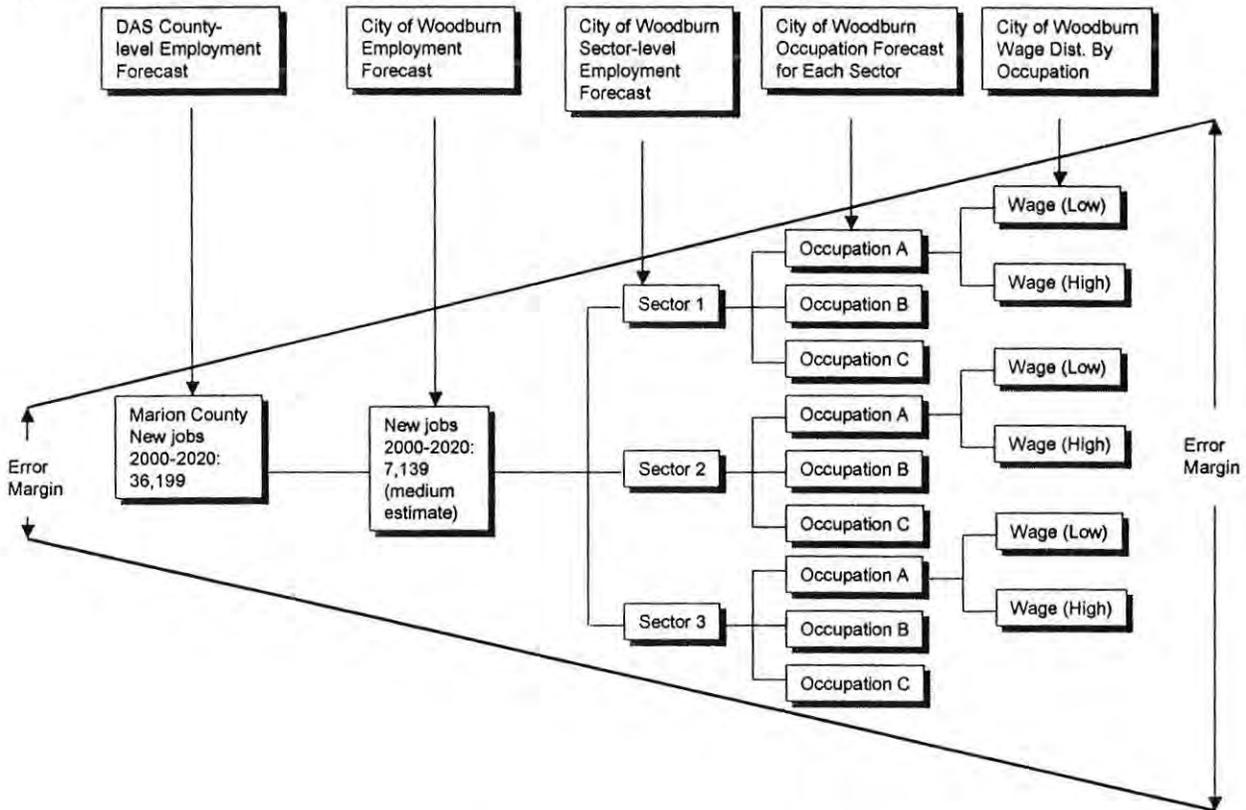
Once we had occupational employment by sector, we calculated the percentage share of total employment in each sector by occupation. Woodburn's total employment by sector was then applied to the distribution of employment by occupation to estimate employment by occupation in Woodburn. Forecast 2020 employment in Woodburn by sector was applied to the forecasted 2010 distribution of employment by occupation. This method captures some of the expected shifts in occupational employment. ECONorthwest did not have enough information to reasonably project occupational employment to 2020.

Estimated employment by occupation in Woodburn for 2000 and 2020 was then matched to occupational wage data provided by the Oregon Employment Department. That data includes an estimate of the annual income supported by the mean wage for each occupation based on full-time employment. That annual income estimate was used to show the distribution of Woodburn's employment by annual income range in 2000 and 2020.

By matching current occupational wage data to forecast occupational employment in 2020, this method shows the projected future income distribution in constant year-2000 dollars. By using current occupational wage data, this method implicitly does not reflect any expected shifts in relative occupational wages (wages in some occupations will grow faster or slower than wages for all occupations).

Figure 1-1 shows the steps in estimating the wage ranges. We note that uncertainty is compounded with every step in the process. The process begins with the County-level employment forecasts by the Office of Economic Analysis (OEA). ECO then used the OEA forecast as a control total to estimate employment in Woodburn. An additional margin of error is introduced when the City total is disaggregated into industrial sectors. Each industry may include a range of occupations; each occupation has a range of wages. Our point is that the margin of error of the wage distributions could be as large as 100%.

Figure 1-1. Methods to develop wage distribution estimate



The purpose of this analysis is to develop a better idea of the relationship between future jobs, incomes, and housing affordability in Woodburn. To our knowledge, Corvallis is the only other City that has attempted this level of analysis to estimate wages for each of its forecasted additional employees.¹ Our conclusion is that the data do not support being able to do this kind of analysis with any greater confidence than what we have described.

Moreover, the available data sets do not allow a direct empirical linkage between job growth and housing affordability. The missing factor is the relationship between wages (earned by individuals) and total household income (many households include more than one wage earner). Thus, the best we can do with this analysis is to develop a forecast of the wage distribution implied by forecasted job growth in Woodburn.

RESULTS

ESTIMATED WAGE DISTRIBUTION

Table 2 shows the estimated annual income distribution of occupational employment in Woodburn in 2000 and 2020. This table shows that occupations that support an annual

¹ That work was completed by ECONorthwest in 2000.

income of \$20,000–\$29,999 are expected to have the largest share of total employment growth (38%), followed by occupations supporting an income of \$30,000 to \$39,999 (17%). It also shows that the share of workers in occupations with incomes above \$20,000 will increase, while the share of workers in occupations with incomes between \$10,000 and \$19,999 will decrease.

Table 2. Annual income distribution of estimated occupational employment in Woodburn, 2000–2020 (2000 dollars)

Annual Income	2000	2020	Change	% Change
< \$10,000	0	0	0	0%
\$10,000 - \$19,999	3,112	3,993	881	28%
\$20,000 - \$29,999	3,539	6,328	2,789	79%
\$30,000 - \$39,999	1,369	2,678	1,309	96%
\$40,000 - \$49,999	1,062	1,982	920	87%
\$50,000 +	956	1,826	870	91%
Unknown	1,201	1,861	660	55%
Total	11,239	17,528	7,140	100%

Source: ECONorthwest.

Table 2 shows that the annual income associated with about 10% of the occupations in Woodburn is unknown, because wage data for these occupations is not reported by the Oregon Employment Department. Table 3 shows the occupations estimated to have over 50 employees in Woodburn for which we do not have wage data. Employment in these occupations represents about 60–70% of all employment in occupations for which we do not have wage data. Table 3 shows roughly 1/3 of employment in occupations that we do not have wage data for are in Nursery Workers and Student Workers, occupations that are likely to pay wages that support incomes of \$10,000 to \$19,999.

Table 3. Woodburn employment in occupations with unknown wages

Occupation Title	2000	2020	Likely Income Range
Nursery Workers	359	241	\$10,000 - \$19,999
Student Workers	154	292	\$10,000 - \$19,999
Other Hand Material Movers	68	115	\$20,000 - \$29,999
Leased Workers	54	105	\$20,000 - \$29,999
Other Professional & Tech Wkrs	74	137	\$30,000 - \$39,999
Other Management Support Workers	62	107	\$30,000 - \$39,999
Other Managers & Administrators	79	143	\$40,000 - \$49,999
Total	851	1,140	

Source: ECONorthwest.

Note: Table 3 shows only occupations with 50 or more employees.

The income distribution in Table 2 has indirect implications for the distribution of household income in Woodburn, for two reasons. First, Table 2 shows the distribution for individual occupations but many households will have more than one wage earner, so total household income will be affected by the earnings of all household members. Second, not everybody who works in Woodburn lives in Woodburn, and some residents of Woodburn work outside of the city.

Table 4 shows the estimated distribution of employment by income for Woodburn in 2000, 2020, and for new employment added between 2000 and 2020. The results show that implementation of the City's economic development strategy will result in much faster growth in jobs paying more than \$20,000 annually. Forty-three percent of new jobs are forecast to have annual incomes of more than \$30,000.

Table 4. Estimated distribution of employment by income, Woodburn 2000-2020

Annual Income	Total Employment		New Emp
	2000	2020	2000-2020
< \$20,000	28%	23%	12%
\$20,000 - \$29,999	31%	36%	39%
\$30,000 - \$39,999	12%	15%	18%
\$40,000 - \$49,999	9%	11%	13%
\$50,000 +	9%	10%	12%
Unknown	11%	11%	9%
Total	100%	100%	100%

Source: ECONorthwest.

Another way to analyze future income shifts is by using hourly wages. Occupational wage data from the Oregon Employment Department were used to estimate the number of new jobs in Woodburn by wage level. Table 5 shows our forecast of new jobs by wage level in Woodburn between 2000 and 2020. The results indicate that more than half the jobs created will pay more than \$12.00 per hour.

Table 5. Forecast of new jobs by wage level in Woodburn, 2000-2020

Average Hourly Wage	2000	2020	Change	% Change
< \$7.99	1,389	1,605	216	3%
\$8 - \$11.99	3,525	5,731	2,206	31%
\$12 - \$15.99	1,660	3,302	1,642	23%
\$16 - \$19.99	943	1,829	886	12%
\$20 - \$23.99	447	893	446	6%
\$24 and over	884	1,693	809	11%
Unknown	1,540	2,475	935	13%
Total	10,388	17,528	7,140	100%

Source: ECONorthwest

Note: Table does not include occupations for which no wage data is available from the Oregon Employment Department.

Table 6 shows the estimated distribution of employment by income for Woodburn in 2000, 2020, and for new employment added between 2000 and 2020. The results show that implementation of the City's economic development strategy will result in much faster growth in jobs paying more than \$12.00 per hour. Fifty-two percent of new jobs are forecast to have annual incomes of more than \$12.00 per hour.

Table 6. Estimated distribution of employment by income, Woodburn 2000-2020

Average Hourly Wage	Total Employment		New Emp 2000-2020	
	2000	2020	Number	Percent
< \$7.99	13%	9%	216	3%
\$8 - \$11.99	34%	33%	2,206	31%
\$12 - \$15.99	16%	19%	1,642	23%
\$16 - \$19.99	9%	10%	886	12%
\$20 - \$23.99	4%	5%	446	6%
\$24 and over	9%	10%	809	11%
Unknown	15%	14%	935	13%
Total	100%	100%	7,140	100%

Source: ECONorthwest.

COMPARISON TO OTHER CITIES

Woodburn's economic development strategy is to increase high-wage employment. The previous section described why it is difficult to develop an accurate estimate of future wage levels. Moreover, ECO stopped short of using the wage estimates to develop a future distribution of household incomes. ECO identified a number of Oregon cities to compare with Woodburn to better understand the relationship between various socio-economic characteristics.

Table 7 presents a set of Census variables for Woodburn and other selected Oregon cities.² ECO chose the comparable cities primarily based on size, and secondarily based on recent growth and economic trends. While it is difficult to draw definitive conclusions from the data, ECO makes the following observations:

- With the exception of Bend and McMinnville, more than 50% of the labor force in the comparable cities worked in a different place. Woodburn is closely comparable to the nearby cities of Tigard, Wilsonville, and Tualatin.
- With the exception of McMinnville, Springfield, and Woodburn, the comparable cities have 33% to 40% of their households in incomes ranging between \$50,000 and \$100,000.
- Springfield and Woodburn have the lowest median household incomes—about \$33,000. Median household income in the comparable communities was much higher, ranging from \$40,000 in Bend to \$55,000 in Tualatin.
- Woodburn, Forest Grove, and Hillsboro had the highest percentage of residents in manufacturing industries.

² The U.S. Census counts the number of residents that are employed by location of residence, not location of employment. Thus, employment figures do not represent the number of jobs in a specific city.

- Woodburn has a lower percentage of residents employed in Education, Health and Social Services and Other Services than any of the comparable communities. It also has a relatively low percentage of residents employed in Professional Services.

Table 7. Comparison of Census variables, Woodburn and selected cities, 2000

Variable	Bend	Forest Grove	Hillsboro	McMinnville	Oregon City	Springfield	Tigard	Tualatin	Wilsonville	Woodburn
Population	51,808	17,524	69,883	26,552	25,533	52,729	41,261	22,587	13,905	20,076
Labor Force										
Total	26,106	7,854	35,797	11,244	12,647	24,458	21,619	12,419	7,371	7,384
Worked in place of residence	82%	34%	43%	59%	26%	38%	27%	25%	28%	29%
Worked outside place of residence	18%	66%	57%	41%	74%	62%	73%	75%	72%	71%
Household Income										
Total	21,050	6,310	25,028	9,358	9,493	20,423	16,499	8,617	5,927	6,250
Less than \$10,000	7%	10%	5%	9%	8%	12%	4%	4%	4%	9%
\$10,000 to \$14,999	7%	7%	4%	7%	4%	8%	5%	3%	4%	8%
\$15,000 to \$19,999	7%	5%	5%	6%	6%	10%	6%	3%	6%	8%
\$20,000 to \$24,999	7%	8%	5%	6%	5%	8%	6%	5%	5%	8%
\$25,000 to \$29,999	8%	6%	5%	7%	6%	7%	5%	6%	6%	9%
\$30,000 to \$34,999	8%	7%	6%	7%	8%	8%	6%	8%	7%	10%
\$35,000 to \$39,999	6%	6%	6%	9%	6%	7%	6%	4%	5%	7%
\$40,000 to \$44,999	6%	6%	6%	8%	7%	6%	6%	5%	7%	7%
\$45,000 to \$49,999	6%	6%	5%	7%	7%	6%	5%	6%	4%	5%
\$50,000 to \$59,999	10%	11%	12%	10%	12%	9%	10%	11%	8%	9%
\$60,000 to \$74,999	11%	11%	14%	9%	12%	9%	11%	11%	13%	9%
\$75,000 to \$99,999	10%	10%	14%	8%	13%	6%	15%	15%	15%	6%
\$100,000 to \$124,999	4%	3%	7%	3%	5%	2%	7%	9%	8%	3%
\$125,000 to \$149,999	2%	1%	3%	1%	2%	1%	3%	4%	3%	0%
\$150,000 to \$199,999	2%	1%	2%	1%	1%	0%	3%	4%	3%	1%
\$200,000 or more	2%	1%	1%	1%	1%	1%	2%	3%	3%	0%
Median Household Income	40,857	40,135	51,737	38,953	45,531	33,031	51,581	55,762	52,515	33,722
Source of Income										
Percent Wage and Salary	76%	74%	88%	73%	84%	80%	83%	89%	82%	64%
Employment										
Total employees	26,565	8,004	36,427	11,437	12,830	24,855	21,893	12,523	7,451	7,448
Manufacturing	10%	24%	28%	17%	13%	17%	15%	17%	16%	22%
FIRE	7%	4%	8%	6%	6%	6%	10%	10%	9%	3%
Professional Services	9%	9%	10%	6%	8%	8%	12%	13%	12%	10%
Ed, Health & Social Services	19%	24%	15%	21%	19%	18%	15%	15%	15%	11%
Other Services	16%	9%	9%	12%	11%	15%	13%	9%	11%	11%
Public Administration	3%	2%	3%	6%	6%	4%	3%	2%	4%	2%

Source: 2000 Census

Note: Census counts employment by place of residence not by place of work

ESTIMATED 2020 INCOME DISTRIBUTION

The final step in this analysis was to develop a 2020 income distribution. The previous sections discussed the difficulties and uncertainties of developing such a distribution. The reason for developing such a distribution is to provide input to the DLCD/HCS *Housing Needs Model*. In short, the City desires to model housing needs based on anticipated future incomes.

The distribution presented in Table 8 represents ECO's best estimate of what incomes in Woodburn will look like if the City is successful in implementing its economic development strategy. The 2020 distribution assumes a 2020 population of 34,919. At an average household size of 2.7 persons, we estimate Woodburn will have 12,932 households in 2020.

Table 8. Estimated 2020 income distribution, Woodburn UGB

HH Income	2000		2020	
	Number	Percent	Number	Percent
<10k	538	8.6%	992	7.7%
10k <20k	1,005	16.1%	1,810	14.0%
20k <30k	1,088	17.4%	1,552	12.0%
30k <40k	1,097	17.6%	1,833	14.2%
40k <50k	744	11.9%	2,134	16.5%
50k <75k	1,152	18.4%	2,586	20.0%
75k+	626	10.0%	2,029	15.7%
Total	6,250	100.0%	12,932	100.0%

Source: Estimates by ECONorthwest

CONCLUSION

Our analysis of the relationship between employment forecasts and wage levels lead to several conclusions:

- *Woodburn will add 7,139 jobs between 2000 and 2020. This forecast accounts for 20% of all job growth forecast for Marion County.*
- *More than 50% of new jobs created between 2000 and 2020 are expected to pay less than \$30,000 annually on a full-time equivalent basis.³ This is a range of \$7.00 to \$15.00 per hour expressed as an hourly wage. About 18% will pay between \$30,000 and \$39,000 annually, and about 13% will pay more than \$40,000 to \$49,000 annually.*
- *The successful implementation of Woodburn's economic development strategy will have a significant impact on the city's wage distribution. The strategy will result in fewer low-paying retail and service jobs, and more high-wage manufacturing, construction, and skilled occupations.*

The analysis described in this section intended to make a linkage between new employment, wages, and households' ability to purchase housing. The data, unfortunately, did not allow us to make the leap from a wage distribution to housing affordability.

The wage distribution analysis, however, suggests that a higher percentage of new jobs created in Woodburn between 2000 and 2020 will pay more than existing jobs. This result will impact household home purchase decisions, which will affect the City's housing need. The general impact will be to create more demand for single-family housing types and a broader range of prices. This suggests that the City should plan for a range of housing types and designate lands consistent with that range.

³ A full-time equivalent assumes 1980 hours annually. We recognize that many new jobs in Woodburn are likely to be part-time jobs that will not equate to the annual salary estimates. The base data, however, do not make a distinction between full-time and part-time employment.

EXHIBIT 4-D

4-D

**LOCAL WETLANDS INVENTORY
AND RIPARIAN ASSESSMENT**

City of Woodburn Local Wetlands Inventory and Riparian Assessment

Prepared for
The City of Woodburn

Prepared by



Shapiro and Associates, Inc.

January 5, 2000

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City of Woodburn Local Wetlands Inventory and Riparian Assessment

Prepared for

Teresa Engeldinger
The City of Woodburn
270 Montgomery Street
Woodburn, Oregon 97071

Prepared by

Dan Cary
Colin MacLaren
John Gordon
Ed Strohmaier
Peggy O'Neill
Paul Gill
Sylvia Jung
Shapiro and Associates, Inc.
1650 N.W. Naito Parkway, Suite 302
Portland, Oregon 97209
SHAPIRO Project #2981036

January 5, 2000

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- Appendix B Wetland Data and Summary Sheets (organized by drainage basin and wetland code)
- Appendix C Riparian Data and Summary Sheets
- Appendix D DSL OFWAM Manual
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1.0 INTRODUCTION

The City of Woodburn (City), like many other Willamette Valley communities, is being discovered as a very suitable place to live and develop businesses. As a result, the City is experiencing significant growth. Over four hundred new residential building lots have been approved in the last few years. Many large, undeveloped properties are zoned for development, both residential and commercial (Figure 1). To plan for and manage continuing growth, the City is conducting Periodic Review. Part of this review includes a buildable lands inventory. A stormwater master plan and parks/open space master plan also are being prepared. Completion of a Local Wetland Inventory (LWI) is critical to the completion of these master plans.

The City was awarded a 1997/1998 Wetlands Planning Assistance Grant by the Oregon Division of State Lands (DSL), funded by the U.S. Environmental Protection Agency (EPA) Region X. The work described in the grant includes conducting a LWI and a Riparian Assessment. An approved LWI will replace the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps that are currently the City's only source of information on where wetlands are located. The LWI will be incorporated into the statewide wetlands inventory.

On May 14, 1998, the City hired Shapiro and Associates, Inc. (SHAPIRO) to conduct the LWI and Riparian Assessment using SHAPIRO wetland scientists experienced in conducting LWIs: Dan Cary, Colin MacLaren, and John Gordon. Mr. Cary, project manager, is certified as a wetland delineator by the U.S. Army Corps of Engineers (COE). Ed Strohmaier and Paul Gill, trained wetland delineators, and Peggy O'Neill, a wetland technician, assisted in the inventory. Sylvia Jung, a cartographer with experience mapping LWIs, produced the digitized mapping products. Field work was performed between July 21 and September 1, 1998.

This report documents the methods and results of the LWI. In addition, the relative quality of the wetlands was assessed using the Oregon Freshwater Wetland Assessment Methodology (OFWAM, Roth, et al., revised edition, 1996). This information was used to identify significant wetlands within the City's Urban Growth Boundary (UGB) to address Goal 5 requirements for wetland protection. Riparian assessments were conducted using the Urban Riparian Inventory and Assessment Guide (Riparian Guide; Pacific Habitat Services, 1998). A brief description of the OFWAM and Riparian Guide processes are provided in Sections 2.3 and 2.4 of this document, and the summary sheets for each wetland are included in the appendices.

Methods used to conduct the study are found in section 2.0; project area characteristics are described in section 3.0; wetland findings are reported in section 4.0; and riparian findings are reported in section 5.0. Section 6.0 includes a summary of the project, and Section 7.0 lists all references used. Appendix A contains wetland inventory section maps; Appendix B contains data sheets, OFWAM assessment worksheets, and results organized by watershed and wetland code; Appendix C contains riparian assessment worksheets and results; Appendix D contains a complete OFWAM guide; and Appendix E contains the riparian guide in its entirety.

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2.0 SOURCE MATERIALS AND METHODS

2.1 Source Materials

Available information and data were compiled and reviewed prior to field work. For example, soil mapping information was compiled from data available from the U.S. Department of Agriculture (USDA) Soil Conservation Service (SCS, now known as the Natural Resource Conservation Service [NRCS]) county soils survey. U.S. Geological Survey (USGS) 7.5-minute topographic quadrangles, USFWS NWI maps, flood insurance rate maps from the U.S. Department of Housing and Urban Development Federal Insurance Administration (FIRM), City zoning maps, and tax assessor maps, also were consulted.

A digitized base map of the study area was obtained that included layers for tax lot lines, street names, right-of-ways, and section boundaries. A series of recent, spring, color, aerial photographs were obtained for the study area at the scale of the base map. Other source materials included: Oregon Rivers Information System (ORIS) fish presence data base; Oregon Department of Environmental Quality (DEQ) 303(b) report (1998); Classification and Catalog of Native Wetland Plant Communities in Oregon (John Christy, 1993); and a current data search from the Oregon Natural Heritage Program (ONHP). This information was used to develop a preliminary indication of the location and possible quality of wetlands, facilitate on-site gathering of data, and complete the assessments.

The City, with assistance from SHAPIRO, identified properties likely to contain wetlands. The owners of the identified properties then were sent an access permission letter. Properties to which access was granted were located on the aerial photograph and later noted on inventory maps.

2.2 Local Wetlands Inventory

2.2.1 Overview of the Local Wetlands Inventory

The 1989 Oregon State Legislature authorized the DSL to develop a statewide wetlands inventory suitable for planning and regulatory purposes. Pursuant to ORS 196.674, in 1994 the DSL established LWI standards and guidelines, which are located in OAR 141-86-180 through 141-86-240. The purpose of an LWI is to locate, map, and classify wetlands by type (such as forested wetlands) over a relatively large geographic area. In accordance with LWI standards, the approximate boundaries of all wetlands at least 0.5 acre in size are identified in the inventory. No wetland boundaries were staked or flagged by SHAPIRO for this study. This LWI does include wetland delineations approved by the DSL and COE. These wetland delineations were confirmed within the last ten years, but no later than the end of the field collection period.

2.2.2 Overview of Local Wetlands Inventory Methods

A LWI is conducted using color or color infrared, aerial photographs taken within five years of the inventory initiation and at a minimum scale of 1" = 800' (1:9600). In general, wetlands are located using aerial photographs. Then site visits are conducted (on-site) option, as described in

the LWI standards and guidelines. In cases in which property access is denied, wetlands can be mapped off the site using other information, such as topographic maps and aerial photographs, to aid in locating wetlands. The product of an LWI is a parcel-based map showing the approximate location of wetlands at a minimum scale of 1" = 800'. The parcel-based map allows the property owner, local jurisdiction, and DSL to know which tax lots may contain wetlands.

2.2.3 On-site Wetland Determination

Where property access permission had been granted, on-site wetland determinations were made using the *Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1* (Manual; Environmental Laboratory, 1987). The COE and DSL recognize the use of the 1987 Manual for delineation of wetlands.

The Manual provides technical criteria, field indicators, and recommended procedures to be used in determining whether an area is a jurisdictional wetland, and the location of the wetland boundaries. The Manual requires that three technical criteria be met in undisturbed situations before areas can be considered wetland under federal or state jurisdiction. These criteria are the presence of hydric soils, hydrophytic vegetation, and wetland hydrology under normal circumstances. If one of these criteria cannot be determined because of disturbance caused by recent natural events or human activities, an alternative method must be used in making wetland determinations.

Observations of soils, vegetation, and hydrology were made using a modification of the Manual's "Routine Onsite" method. Data sites were selected to provide a valid representation of site conditions. Data were collected from representative sampling locations to justify the location of the wetland boundary. However, additional sample sites were investigated between these data points to verify changes in the three parameters, further characterize the wetland, and refine the wetland boundary.

Hydrologic Assessment

The Manual defines wetland hydrology as saturation within a major portion of the root zone (usually above 12 inches), typically for at least 12.5% of the growing season. The growing season for any given site or location is determined from SCS or NRCS data and information. The growing season is defined as the frost-free period recorded at the nearest recording station five years out of ten. Wetland hydrology field indicators were recorded for each excavated soil pit. Data typically recorded include depth of inundation, water table, and soil saturation. Primary indicators, such as sediment deposits, watermarks, drift lines, and drainage patterns, or secondary indicators, such as oxidized rhizospheres (root zones), also were recorded.

Soils Assessment

Hydric soils are those that have formed exclusively under wet conditions (soils that characteristically have high water tables, are ponded or frequently flooded, or are otherwise saturated for extended periods during the growing season). The possible location of hydric areas on the site was obtained from the SCS or NRCS county soil survey. Soil pits were excavated to

a depth of 18 inches or more in selected locations in relation to identified potential wetland areas. Soil profiles were examined for hydric soil indicators. Soil characteristics (matrix color, mottling, texture, and other features) were recorded.

Vegetation Assessment

Hydrophytic vegetation consists of those plant species that have adapted to growing in substrates that are periodically deficient of oxygen because of saturated soil conditions. Species lists of commonly encountered plants and their status have been prepared for all regions of the country by the USFWS (1988 with 1993 supplement). The status of a particular plant is the probability of that plant occurring in a wetland. Five basic groups of vegetation are recognized in the USFWS list based on their frequency of occurrence in wetlands (Reed, 1988, 1994). These categories, referred to as the "wetland indicator status" (from the wettest to driest habitats), are as follows: obligate wetland (OBL) plants; facultative wetland (FACW) plants; facultative (FAC) plants; facultative upland (FACU) plants; and obligate upland (UPL) plants. Refer to data sheets in Appendix B for these categories. Many plants are found in transitional areas between wetlands and uplands. These areas are usually characterized by flat to gradually sloping terrain where the species composition may not reflect true wetland boundaries. In such areas, a species with a status of FACU may extend into the wetland areas, just as FACW species may be present in upland areas.

A visual percent-cover estimate of the dominant species of the plant community was performed for key sample sites. A 30-foot-radius area was investigated for dominant tree and shrub species, and a 10-foot-radius area for dominant herbaceous species, using soil pit locations as a center of reference. Dominance of plant species was determined by estimating their percent areal cover per stratum (herbaceous, shrubs, woody vines, and trees). Species from each stratum were listed together in descending order of percent cover. A determination as to predominance of hydrophytic vegetation was made using the 50-20 technique. The most abundant plant species (when ranked in descending order of abundance and cumulatively totaled) that, when totaled, immediately exceed 50% cover, plus any species comprising more than 20% cover, represent the dominant species (Federal Interagency Committee for Wetland Delineation, 1989). If more than 50% of the dominant species included by the above criteria are FAC or wetter, the vegetation community is considered hydrophytic. FAC- species are excluded and are considered non-hydrophytic vegetation. The "-" indicates plant species that prefer slightly drier conditions on average. A "+" indicates plant species that prefer slightly wetter conditions on average.

2.2.4 Off-site Determination

No on-site sampling could be conducted where property access permission had been denied or not explicitly approved. Therefore, off-site determinations were made on the basis of aerial photograph inspection, all available mapped attributes (e.g., SCS soil surveys and NWI maps, confirmed determinations and delineations), and, where available, a reconnaissance from nearby public or approved vantage points. Observations from vantage points included documentation of dominant vegetative communities (forested, scrub/shrub, or emergent) and water regimes (such as ponded areas and obviously wet meadows). Approximate wetland boundaries were drawn on aerial photographs. Boundaries determined in this way may not be sufficiently accurate for state

and federal jurisdictional determinations because of the absence of actual on-site data. In addition, where views into properties from vantage points were not possible or otherwise restricted, and where aerial photographic and mapped information was inconclusive, some wetland areas may have been missed and were not inventoried.

2.2.5 Classification of Wetlands

The Cowardin classification system was used to classify the types of wetlands inventoried (Cowardin, et al. 1979). The Cowardin system classifies wetlands according to general systems, structure, vegetation types, water regime, and other modifiers. For example, wetlands within the Woodburn study area are of the palustrine class. Palustrine combines vegetated freshwater wetlands (traditionally called marshes, swamps, bogs, fens, and wet prairies) and small, shallow, permanent, or intermittent water bodies called ponds that are less than 2 meters (6.6 feet) deep. This classification applies to emergent, scrub/shrub, and forested wetland areas. Wetlands dominated by grasses and other herbaceous plants are classified as PEM, Palustrine Emergent. Wetlands dominated by woody species less than 30 feet high are classified as PSS, Palustrine Scrub/Shrub. A site dominated by woody species over 30 feet high is classed as PFO, Palustrine Forested. The NWI inventory maps also use the Cowardin classification system for mapped wetland habitats.

2.2.6 Data Compilation and Interpretation

Data were recorded in the field and subsequently transferred to computerized standard wetland delineation data sheets. Sampling site locations were recorded on the aerial photographs. The approximate boundaries of wetlands and location of sample sites were drafted on the aerial photograph in the field. These boundaries subsequently were digitized onto the AutoCAD maps. All wetlands received a unique code to aid in their identification. The code was based on the drainage basin the wetland was located in and the number of wetlands within each basin. In general, parts of wetlands received separate codes where major roads or distinct breaks in wetland character occurred. Some wetlands were grouped and coded as one unit where they were adjacent, hydrologically linked, or similar in character, thus functioning as a unit. Wetland delineation boundaries confirmed by the DSL were digitized from photocopies of maps in reports submitted to the DSL. In addition, mitigation areas were drawn on the maps, if their locations were known.

2.2.7 Confirmation of LWI

A draft set of maps and report is provided to the DSL for its confirmation and assessment. Once the DSL has reviewed the documents, SHAPIRO will review the comments and make modifications to the draft wetland maps and report. The products are then resubmitted for final approval. The status of this report as draft or final is indicated on the report cover and maps.

2.3 Wetland Quality Assessment

2.3.1 Overview of the Oregon Freshwater Wetland Assessment Methodology

The OFWAM was developed by an interagency committee to assess the relative quality of a wetland. The methodology is intended for use by planners, public officials, and community members for planning and educational purposes. Completion of this methodology provides basic information, which is not intended for evaluation of detailed, site-specific impacts on individual wetlands.

OFWAM is based on the idea that an understanding of the wetland system functions and conditions at local, state, and federal levels is necessary to make management decisions. Recommended uses of OFWAM include collection of basic information about wetlands in an assessment area, creation of a database of functions and conditions and other wetland data, support of decision making and planning within a jurisdiction, and education. OFWAM requires that the same functions and conditions be evaluated for each wetland within a study area. There are, in addition, other considerations noted in the following sections that determine the wetland's overall value.

2.3.2 Application of OFWAM

OFWAM assessments were partially completed during field work using data gathered in the field. Other source materials were used to complete the assessments. The methodology provides qualitative information on the relative value of wetlands based on a series of questions related to wetland functions. The following functions are assessed: wildlife habitat, fish habitat, water quality, hydrologic control, sensitivity to impact, enhancement potential, education, recreation, and aesthetic quality. Each function is assessed by criteria that give an indication of whether a wetland function is (1) intact, (2) affected or degraded, or (3) lost or not present. OFWAM is designed to be open-ended; therefore, other functions and conditions may be added later, or some may be dropped if not important to the user.

The OFWAM results and a summary of the functions and conditions for each wetland are included in Appendix B. Additional details about assessing the functions and conditions are provided in Appendix D.

2.3.3 Wetlands of Special Interest for Protection

A subset of questions within OFWAM provides a method to assess whether any wetlands within the study area should be considered Wetlands of Special Interest for Protection (WSIP). WSIP assesses whether the wetland is currently in a management plan, is protected by regulatory rules or statutes, or is uncommon in Oregon. The presence of rare, threatened, or sensitive species within an area makes the wetland a potential WSIP. An affirmative answer to any one of these questions also will place the wetland into a category for protection. This information could be used in management decisions for a site. The use of OFWAM and WSIP screening questions

will assist in an overall evaluation of the wetlands in the assessment area. Many of these WSIP questions are repeated in the locally significant criteria questionnaire (see next section), so the results were combined in one table (see Section 4.3).

2.3.4 Locally Significant Wetland Assessment

The term "significant wetlands" has meaning in the context of Statewide Planning Goal 5. Under this Goal, local governments are instructed to identify their significant resources, including wetlands, so those resources serving significant functions in the local community are given proper consideration in planning decisions. The DSL established a technical advisory committee to develop the locally significant wetlands (LSW) criteria. The DSL adopted the Administrative Rules for Identifying Significant Wetlands in January 1997 (141-86-300 through 141-86-350). The criteria rely heavily on the results of OFWAM. Only jurisdictional wetlands are assessed with the criteria.

Locally Significant Wetland Criteria:

A wetland is considered significant if it meets one or more of the following criteria:

- Wetlands that are given the highest rank for any of the four ecological functions addressed by OFWAM or equivalent methodology (see Appendix D for more details on the ranking):
 - wildlife habitat,
 - fish habitat,
 - water quality, or
 - hydrologic control.
- Wetlands that (1) are rated either in the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) border a water quality limited stream, as listed by the DEQ. Dedicated stormwater detention swales are not included.
- Wetlands that contain one or more uncommon wetland plant community, including those listed in the ONHP's *Classification and Catalog of Native Wetland Plant Communities in Oregon* as G1-G3 and S1-S3.
- Wetlands inhabited by any species listed by the federal or state government as a sensitive, threatened, or endangered in Oregon (unless consultation with an appropriate agency deems the site not important for the maintenance of the species).
- A wetland that is a dedicated or proposed Registered Natural Area or Area of Critical Environmental Concern, State Natural Heritage Conservation Area, Federal Research Natural Area, or Land Trust.
- Wetlands specifically protected as wetland resources in a recognized federal, state, or local management plan, (e.g., for park, refuge, or scenic river).

- Wetlands that rate in the highest category for fish habitat in OFWAM and are located adjacent to a stream segment that is mapped by the Oregon Department of Fish and Wildlife (ODFW) as habitat for “indigenous anadromous salmonids.”

The final two criteria are at the discretion of the local government, but have direct connections to OFWAM results:

- *Optional Criterion* (at discretion of local government): The wetland represents a *locally* unique plant community. Wetland is or contains the only representative within the UGB of a particular native plant community (listed in the ONHP’s *Classification and Catalog of Native Wetland Plant Communities in Oregon*). To be identified as a LSW, such a wetland also must score the highest or second highest rank for any of the four ecological functions addressed by OFWAM or equivalent methodology.
- *Optional Criterion* (at discretion of local government): The wetland rates at the highest rank for education potential, and there is documented use for educational purposes by a school or organization.

The City will be required to prepare local wetland protection ordinances to apply to locally significant wetlands. Additional wetlands may be protected based on other information, such as the results of the WSIP. Any wetlands not protected by local ordinances may still be under the jurisdiction of DSL and COE.

2.4 Riparian Assessment

2.4.1 Overview of Riparian Assessment

In accordance with Goal 5, a riparian inventory and assessment was performed for limited areas within Woodburn’s UGB. Goal 5 requires local governments to inventory and protect riparian corridors. Riparian areas are zones of transition between aquatic ecosystems and terrestrial ecosystems. Goal 5 includes definitions that establish a riparian area adjacent to every river, lake, or stream, including intermittent streams with a defined channel. Human-made irrigation or drainage ditches are specifically excluded. Riparian areas can enhance water quality, reduce erosion, moderate water temperatures and flood flows, and provide important fish and wildlife habitat. Riparian areas are particularly important for anadromous salmonids, which rely on cold, clean water and the habitat created by large woody debris.

Local governments have two options that can be implemented in the protection of riparian areas. One option is to inventory and assess all riparian areas as described above, establishing the width of the riparian corridor on the basis of riparian vegetation. The inventoried sites are then analyzed to determine their significance, and ordinances are implemented to provide appropriate protection.

The other option is to implement the "safe harbors" provision. Under this plan, only riparian areas adjacent to fish-bearing water resources are included for protection, and their width is based on the average stream flow of the water resource. Local governments may use either of these options, or some combination of them, to manage their riparian resources.

The riparian inventory and assessment was conducted using the methods contained in the Riparian Guide (a copy of which is found in Appendix E). The Riparian Guide is a rapid inventory and assessment method for defining the location and quality of riparian areas. It is intended as a tool to provide consistent riparian inventory results. This document provides guidance for determining the width and length of riparian areas, and for assessing their water quality, flood management, thermal regulation, and wildlife habitat functions

2.4.2 Methodology of the Riparian Guide

The Riparian Guide includes a field inventory component, during which information is gathered on the width and other physical characteristics of the riparian areas. Riparian areas are assessed as left and right reaches facing downstream. Reaches of the riparian area are split where the character of the riparian area changes. The potential height of the dominant tree in the riparian area determines the width of the riparian areas assessed. Based on these field observations, the following functions of the riparian area are assessed: (1) Water quality, (2) Flood Management, (3) Thermal Regulation, and (4) Wildlife Habitat.

In general, a riparian area receives a higher ranking when the following criteria are met:

- average slope in the riparian area is less than 10%;
- dominant vegetation cover in the riparian area is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high;
- dominant vegetation at the top of the bank or edge of the water resource is woody vegetation greater than 1 meter (3.2 feet) high;
- extent of impervious surface is less than 10%;
- the NRCS ranks the water erosion hazard of the dominant soil unit as low, slight, or moderate;
- aspect or orientation of the riparian area allows shading of the water resource at midday during the summer;
- flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain) are present beyond the top of the bank or edge of the water resource;
- woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high are dominant in the flood prone area;
- large woody debris is present within the riparian area;
- stream or water resource is not constricted by human-made features (e.g., channelization, riprap, concrete wall, etc.);
- water resource is bordered by a vegetated riparian area at least 30 feet wide;
- more than two vegetation layers are present (e.g., canopy, mid-story, groundcover)
- woody vegetation overhangs the edge of the water;
- surface water is present throughout year;

- more than one type of water resource (stream, wetland, lake/pond) is within or immediately adjacent to the riparian reach;
- degree of development or human-caused disturbance (e.g., buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area is less than 25%.

Where these factors are present or developing, the riparian area provides for water quality, flood management, thermal regulation of the water resource, and wildlife habitat.

2.5 Cartographic Products

Wetland boundaries were drawn on aerial photographs. Aerial photographs can have distortion at the edges, so digitized boundaries were adjusted. The inventory was mapped at a scale larger than the scale required in the LWI rules to allow for more clarity. However, at the map scale of 1" = 200' (1:2400), the width of a wetland boundary line is approximately 4 feet. LWI cartography conventions require accuracy of ± 25 feet in placement of the wetland boundary. Wetland field staff reviewed early draft maps and made corrections where necessary to increase the accuracy of the maps. Sample sites were identified within properties to which access was permitted. Ditches and other narrow linear features located on the edge of a property were occasionally drawn slightly to the side of the property line for graphic clarity. Each section map includes a small portion of the adjoining sections. The overlap allows for ease in viewing a wetland that may cross section boundaries. Using AutoCAD, a line was drawn paralleling the edge of the stream to show the width of the potential riparian area.

3.0 PROJECT AREA CHARACTERISTICS

3.1 Background Information

Available information and data were compiled and reviewed before field work was conducted. Soil mapping information was compiled from data available in the SCS Soil Survey of Marion County Area, Oregon. Preliminary wetland information was obtained from Woodburn and St. Paul, Oregon, NWI maps. Floodplain information was obtained from 100-year floodplain Woodburn and Marion County FEMA-FIRM maps (U.S. Dept. of Housing and Urban Development, 1979). Woodburn and St. Paul, Oregon USGS 7.5-minute topographic quadrangles, City zoning maps, and tax assessor maps also were consulted. Other source materials included: ORIS fish presence data base; DEQ 303(b) report (1998); *Classification and Catalog of Native Wetland Plant Communities in Oregon* (John Christy, 1993); and a current data search from the ONHP. This information was used to develop a preliminary indication of the location of wetlands, identify drainageways, highlight low-lying areas, facilitate on-site gathering of data, and complete the assessments.

The City of Woodburn provided a digitized base map of the study area. This map included layers for tax lot lines, street names, right-of-ways, and section boundaries. The project area base map was then plotted at a scale of 1" = 200' onto 24" x 36" sheets. Each sheet covers a section and small portions of surrounding sections, and includes an index map.

A series of color, aerial photographs dated June 6, 1998 were obtained from Bergman's Photographic Services for the study area at a scale of 1" = 200' to match the scale of the base map. These aerial photographs were covered with clear acetate (permanently registered) to protect them during field use and as a surface for drafting wetland boundaries and sample sites.

The City, with assistance from SHAPIRO, identified properties likely to contain wetlands. The owners of the identified properties were sent an access permission letter. Boundaries of properties to which access was granted were identified on the aerial photograph and base map.

3.2 Setting

The City of Woodburn is located in the Willamette Valley in Marion County, Oregon (Figure 2). The City was incorporated in 1889. The Oregon Blue Book (Levine, 1996) lists the City's population as 15,235. Historically, agriculture has provided the economic base for Woodburn.

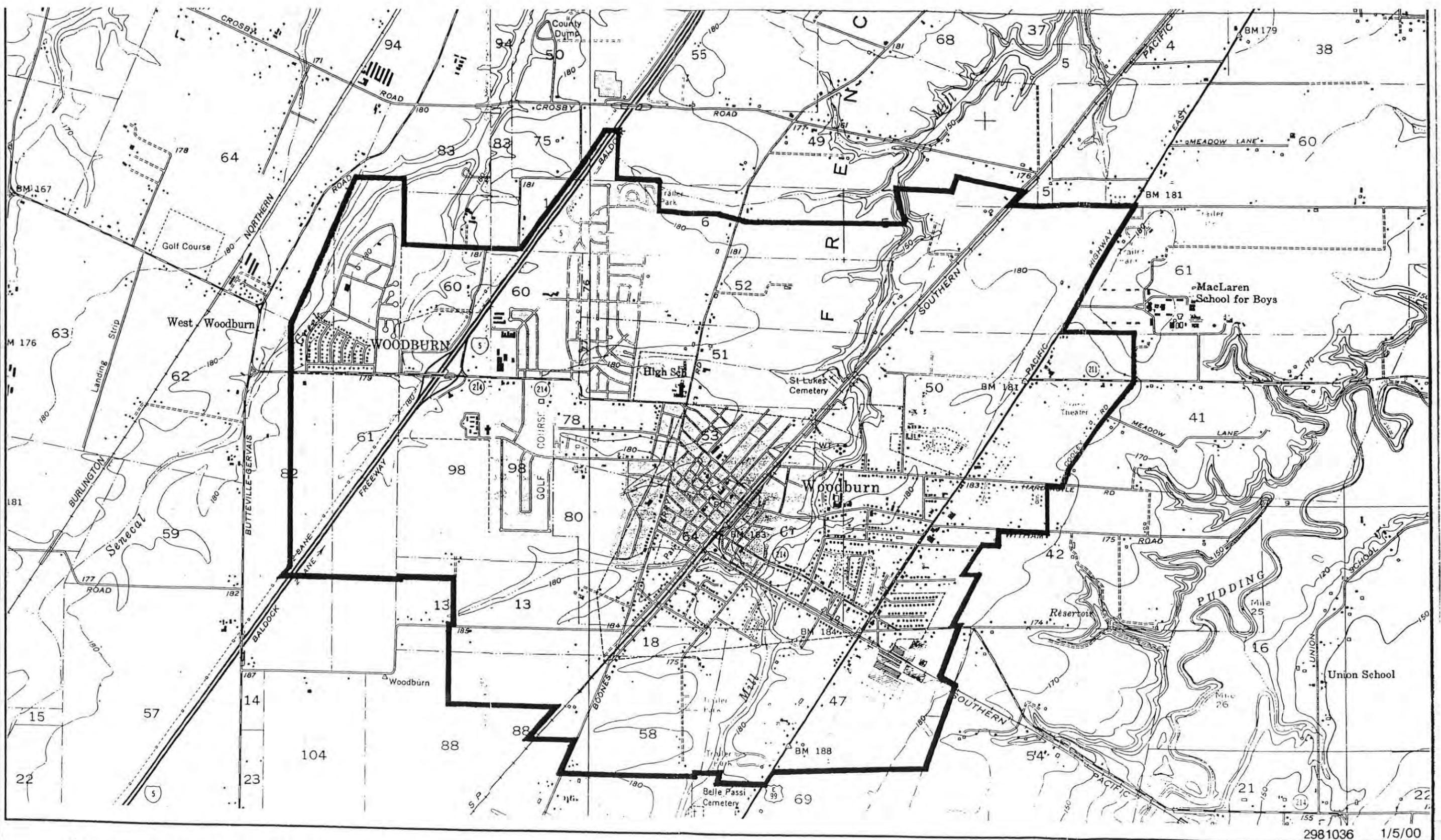
Woodburn is approximately 10 miles northeast of Salem and 20 miles south of Portland. The primary transportation corridors are Interstate 5 on the west, Highway 99 East on the east, and Highway 214 connecting them. Woodburn is roughly equidistant from the foothills of the Cascade Range on the east and the Coast Range on the west. The Willamette River is approximately 5 miles west of Woodburn.

The boundary of the wetland inventory area corresponds with the City's UGB (Figures 1 and 2). Starting in the vicinity of Interstate 5 and Newport Way, the UGB runs eastward, with irregularities, to Highway 99 E. It follows Highway 99 E southwest to a point north of Molalla Road, where it turns east again for approximately one-quarter mile. The boundary then turns southwest and roughly parallels Highway 99 E to a point approximately one-quarter mile south of Cleveland Street, where it turns westward to Front Street. It then follows Front Street northeast a short distance, turns west and north to intersect Interstate 5, then north to cross Highway 214 east of Willow Avenue. Continuing north and then turning east at the end of Ten Oaks Avenue, the boundary returns to the starting point. The inventory area totals approximately 3,000 acres.

3.3 Topography

Woodburn's LWI area is located on a broad, generally level plain between two shallow, roughly parallel drainages. Senecal Creek drainage, on the northwest side of the inventory area, and Mill Creek drainage, on the eastern side of the inventory area, are oriented along a southwest-to-northeast axis. The elevation of the flat area between the drainages is about 180 feet (National Geodetic Vertical Datum; NGVD). The bottom of the Senecal Creek drainage is approximately 20 feet below the level of the surrounding land. Mill Creek drainage also is about 20 feet deep, putting the lowest area at approximately 160 feet NGVD. Both of these drainages are relatively broad and have gently sloping sides. The drainages themselves have a low gradient.

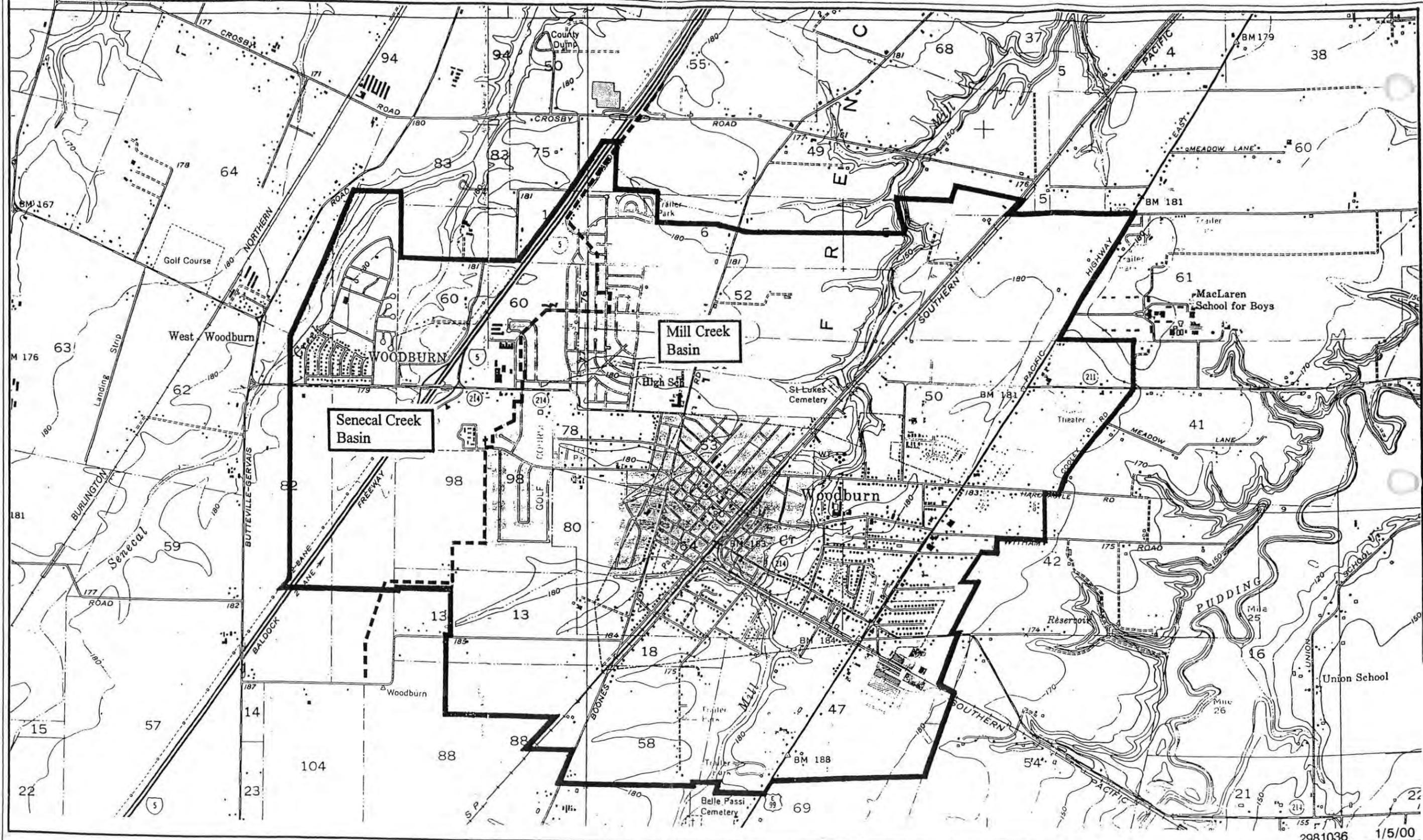
Shallow, wide drainage swales for East Senecal Creek in the northwestern part of the inventory area and Goose Creek near the center of the area are the only other significant topographic features.



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Location and generalized topography of the City of Woodburn Local Wetlands Inventory study area, Oregon (U.S.G.S. 7.5-minute quadrangles, 1:24000, Woodburn 1956 photorevised 1970, and St. Paul 1956 photorevised 1985).

FIGURE
2



Basins within the City of Woodburn Local Wetlands Inventory study area, Oregon.

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FIGURE 3

3.4 Hydrology and Drainage Basins

Woodburn is in the Molalla-Pudding sub-basin of the Willamette River drainage basin. The inventory area contains two main drainage basins further divided into several smaller drainage basins (Figure 3). The City's stormwater management plan is organized by these two main drainages, and they form the basis of organization for the inventory.

Mill Creek (MC) is the main hydrologic feature and has the largest drainage basin in Woodburn. Mill Creek flows from southwest to northeast through the inventory area near the eastern boundary, and enters the Pudding River near Molalla 10 miles northeast of the inventory area.

Most of the Mill Creek channel has been excavated and realigned. The excavated channel is approximately 4 to 6 feet wide, 4 feet deep, and lacks significant sinuosity. Much of the creek channel was dry at the time field work for the inventory was conducted; however, northern portions of the stream contained some standing water. Mill Creek is mapped by the USGS as a perennial stream for most of its length in the inventory area.

Near the southern edge of the inventory area adjacent to a residential development, the Mill Creek channel has been excavated to form a water feature consisting of a pond with islands. The pond contained water at the time of the study. All wetlands in the Mill Creek basin are designated as MC-x.

Goose Creek is a small, realigned tributary of Mill Creek. The headwater basin of Goose Creek is a developed, single-family residential area. A stormwater conveyance system collects runoff from the development and daylight between the western end of Mayana Drive and the northwestern corner of the adjacent public school campus to the south. The creek then flows in an excavated ditch along the southern end of the Tukwila golf course, Woodburn Junior High School, and into Mill Creek southwest of the intersection of Highway 214 and Front Street. At the time of the inventory, Goose Creek had flowing water in it. It is mapped by the USGS as an intermittent stream. Wetlands in this drainage also are designated MC-x, because it is a sub-basin of the Mill Creek system.

Senecal Creek (SC) drains the northwestern part of the inventory area. The channel lacks sinuosity within the floodplain, possibly as a result of excavation or realignment of the stream. The channel is approximately 4 to 6 feet wide and 2 feet deep. At the time of the inventory, Senecal Creek had water only in small, isolated pools in the channel. The USGS mapped the portion of Senecal Creek within the inventory area as perennial. Senecal Creek flows into Mill Creek approximately 6 miles northeast of the inventory area. All wetlands in the Senecal Creek basin are designated SC-x.

East Senecal Creek drains a small part of the Senecal Creek basin. Water from East Senecal Creek fed a large wetland (SC-2C) with substantial areas of inundation and saturation at the time of the inventory. The USGS mapped the creek as intermittent within the inventory area. Wetlands in this drainage also are designated SC-x, because it is a sub-basin of the Senecal Creek system.

At the time of the inventory, significant commercial and industrial development was occurring in the Senecal Creek basin. Senecal Creek's position on the edge of the UGB makes it sensitive to activities both inside and outside the inventory area.

3.5 Soils

3.5.1 Overview

Most of the soils in the study area were formed in mixed or unsorted alluvium, silty alluvium, mixed mineral and organic material, and loess of mixed mineralogy. Alluvium is unconsolidated sediment deposited by streams. Loess is windblown silt deposit from glacial outwash. The term "mixed" means the soil particle sizes are generally unsorted.

Nine soil types are mapped within the Woodburn UGB. These soils are shown with their mapping codes in Table 1. In addition, hydric soils and soils with hydric inclusions are also indicated in the table. Mapping units are shown in Figure 4.

3.5.2 Soil Association Descriptions

There are two major soil associations mapped in the study area: the Woodburn-Amity-Willamette association (map unit 4) and the Concord-Dayton-Amity association (map unit 5).

The Woodburn-Amity-Willamette association consists of level to rolling, well-drained to somewhat poorly-drained silt loams over silty clay loams that formed in silty alluvium of mixed mineralogy. The soils are located above the bottomlands of the North Santiam, Santiam, and Willamette Rivers. The association is mapped generally in the western half of the study area. Woodburn soils make up about 60% of the association, Amity soils about 30%, and Willamette soils about 8%. The remaining percentage consists of small areas of Concord, Dayton, Wapato, and Bashaw soils. All of the soils, except the Willamette soils, have a perched water table in winter and early spring. Soils of the association are used for small grains, pasture, hay, orchards, grass seed, fruits, and vegetables, and game birds.

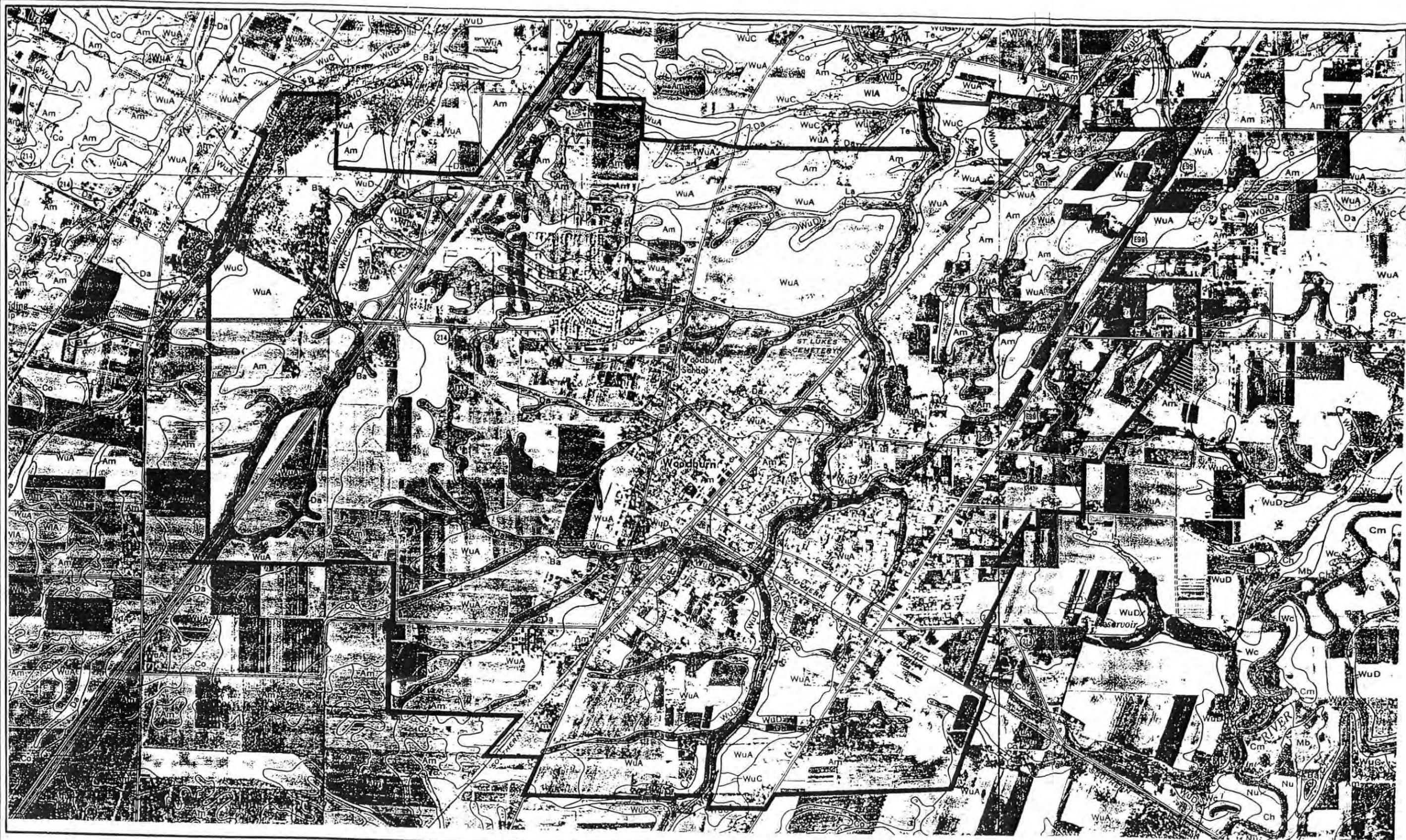
The Concord-Dayton-Amity association consists of nearly level, poorly-drained and somewhat poorly-drained silt loams over silty clay, clay, and silty clay-loams. The soils have formed in silty and clayey alluvium located in shallow drainageways, depressions, and level areas. The association is mapped generally in the eastern half of the study area. Concord soils make up 40% of the association, Dayton soils about 30%, Amity soils about 20%, and Holcomb soils about 5%, in addition to other minor soils. The soils of this association have a perched water table; during wet periods in winter and spring, water ponds on these soils. Soils in this unit are used for pasture, small grains, hay, grass seed, and game birds.

Table 1. Soil Types within the Woodburn UGB

Soil Type	Map Code	Hydric*	Drainage Class	Erosion Hazard
Amity silt loam	Am	No ¹	Somewhat poorly drained	None or slight
Bashaw clay	Ba	Yes	Poorly-drained	Slight
Concord silt loam	Co	Yes	Poorly-drained	Slight
Dayton silt loam	Da	Yes	Poorly-drained	Slight
Labish silty clay loam	La	Yes	Poorly-drained	None or slight
Terrace escarpments	Te	No	Not listed	Not listed
Woodburn silt loam, 0 to 3% slopes	WuA	No ¹	Moderately well-drained	Slight to moderate
Woodburn silt loam, 3 to 12% slopes	WuC	No	Moderately well-drained	Moderate
Woodburn silt loam, 12 to 20% slopes	WuD	No	Moderately well-drained	Moderate

*Notes: ¹ may have inclusions of hydric soils

Sources: USDA SCS, 1972 (Soil Survey of Marion County, Oregon)
 USDA SCS, 1989 (Hydric Soils of Oregon by County)



Soil mapping units with hydric soils within the City of Woodburn Local Wetlands Inventory study area, Oregon (Soil Conservation Service, *Soil Survey of Marion County, Oregon*, 1:20000, 1972.)

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FIGUR

4



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3.5.3 Hydric Soil Descriptions

Bashaw clay (Ba) consists of poorly-drained and very poorly-drained soils that have formed in alluvium. These soils are found in backwater areas of the floodplains and in drainage channels of silty alluvial terraces. In a typical profile, the surface layer is very dark gray (10YR 3/1) clay in the upper 3 inches and black (N2/0) clay to 31 inches thick. The upper part of the subsoil extends to about 48 inches deep and is very dark gray (N3/0) clay. The soil is classified as very fine, montmorillonitic, mesic Typic Pelloxererts. Permeability is very slow.

Concord silt loam (Co) consists of poorly-drained soils that have formed in alluvium of mixed mineralogy. These soils are on broad valley terraces, in slightly concave depressions, and in drainageways. The surface layer is typically very dark grayish brown (10YR 3/2) silt loam about 6 inches thick. The subsurface is dark gray silt loam and heavy silt loam (10YR 4/1) about 3 inches thick. The subsoil is dark gray (10YR 4/1) heavy silt loam, and gray (10YR 5/1) and dark gray (10YR 4/1) light silty clay about 10 inches thick. The soil is classified as fine, montmorillonitic, mesic Typic Ochraqualfs. Permeability is slow.

Dayton silt loam (Da) consists of poorly-drained soils that have formed in old, mixed alluvium, with possible influence from loess deposition. The soils are found on terraces, where they occupy areas in drainageways and depressions. In a typical profile, the surface layer is very dark grayish brown (10YR 3/2) silt loam about 7 inches thick. The subsurface layer is dark gray (10YR 4/1) silt loam about 6 inches thick. The subsoil is about 33 inches thick consisting of dark gray (10YR 4/1) and grayish brown (10YR 5/2) clay. The soil is classified as fine, montmorillonitic, mesic Typic Albaqualfs. Permeability is very slow.

Labish silty clay loam (La) is a poorly-drained soil formed in mixed mineral and organic material on the bottoms of former shallow lakes. Typically, the surface layer is black (10YR 2/1) silty clay loam about 7 inches thick. The subsurface layer is very dark brown (10YR 2/2) silty clay about 9 inches thick. The subsoil layer is very dark gray (N3/0) clay extending to 60 inches or more. The soil is classified as fine, montmorillonitic, acid, mesic Cumulic Humaquepts. Permeability is slow.

3.6 Vegetation

3.6.1 Historical Overview

Woodburn is located in the Willamette Valley unit of the Interior Valley zone of Western Oregon (Franklin and Dyrness, 1973). This zone is the warmest and driest region west of the Cascade Range because of its position in the rain shadow of the Coast Range. The Willamette Valley has been occupied by Euroamericans since the early 19th century. Since that time the natural vegetation has been subject to extensive modification. Before the early 19th century, Native Americans controlled vegetation on extensive areas of the Willamette Valley by seasonal burning (Johannessen, 1971).

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According to Franklin and Dyrness, four major vegetation communities probably existed in the Woodburn area before the City was founded: oak woodland, coniferous forest, grassland, and riparian communities. Remnants of these community types still exist in the inventory area. An important subset of the riparian community type is wetland vegetation. While not addressed specifically by Franklin and Dyrness, it is included below because of its significance in the present work.

3.6.2 Vegetation Communities

Oak Woodland

Oak woodland is dominated by Oregon white oak (*Quercus garryana*). Other tree species sometimes present are Douglas-fir (*Pseudotsuga menziesii*) and bigleaf maple (*Acer macrophyllum*). A typical example of remnant oak woodland in Woodburn is on the upland riparian areas along parts of Senecal Creek.

Coniferous Forest

Douglas-fir is the dominant tree in the coniferous forest community. Grand fir (*Abies grandis*) and bigleaf maple are common minor constituents of this community. The fir grove in Senecal Creek Park is similar to this community type.

Grassland

Franklin and Dyrness published figures from Johannessen showing that grasslands were probably the main vegetation community on the broad plain between Senecal Creek and Mill Creek. However, they also note that all grasslands in the Willamette Valley most likely have been modified by human activities. Presently, the closest approximation to a grassland community in the inventory area are pasture land, mowed fields, and open areas that support predominantly herbaceous vegetation.

Riparian

Black cottonwood (*Populus balsamifera*) and Oregon ash (*Fraxinus latifolia*) dominated riparian communities. Various willow (*Salix*) species were common in this association. Riparian woodlands are still found in Woodburn. The bottomland in Senecal Creek Park supports an ash forest.

Wetland

Vegetation in Woodburn's wetlands is diverse, varying from grasses and other herbaceous plants to trees. Wetlands dominated by grasses and other herbaceous plants are classified as Palustrine Emergent (PEM). Nearly all the wetlands in Woodburn are PEM. A common grass in unmaintained sites is reed canarygrass (*Phalaris arundinacea*), which is found in and along

many of the stream channels and drainage ditches. Broadleaf cattail (*Typha latifolia*) is also found in these areas, if the duration of wet conditions is long enough. These two species are common in wetland areas of the Mill Creek basin.

Wetlands dominated by woody species less than 30 feet high are classified as Palustrine Scrub/Shrub (PSS). A site dominated by woody species over 30 feet high is classed as Palustrine Forested (PFO). In Woodburn, the scrub/shrub and forest species are often found growing intermingled. Major scrub/shrub species include clustered wild rose (*Rosa pisocarpa*), Scouler willow (*Salix scouleriana*), Sitka willow (*S. sitchensis*), Douglas' hawthorn (*Crataegus douglasii*), and red-osier dogwood (*Cornus stolonifera*). Wetland trees are limited to Oregon ash, black cottonwood, and red alder (*Alnus rubra*).

4.0 WETLAND FINDINGS

4.1 Wetland Classification and Location

4.1.1 Wetland Types and Classification

The USFWS mapped wetlands in the study area as part of the NWI program (Figure 5). The NWI maps are generated primarily on the basis of interpretation of small-scale (1" = 4,833' [1:58000]), color infrared, aerial photographs. Limited ground reconnaissance was conducted to confirm the interpretations. Cowardin classifications of wetlands identified by the NWI in Woodburn are found in Table 2. The LWI conducted by SHAPIRO identified many wetlands within the Woodburn UGB that were not mapped by the NWI.

Palustrine emergent (PEM) wetlands comprise the majority of wetlands mapped in the inventory. All the wetlands along the main stem of Mill and Goose Creeks are PEM. The northern half of wetlands in East Senecal Creek are also PEM. In addition, all the wetlands not directly associated with the main stem drainages are PEM, except the water hazards on the Tukwila golf course and four other isolated sites.

Reed canarygrass is the dominant plant in the main stem drainage PEM wetlands. It is mowed to reduce fire hazard, but is still able to compete successfully with other plant species, preventing them from forming large populations.

With the exception of the golf course water hazards and four other sites noted above, wetlands not directly associated with the main stem drainages are in agricultural fields. These wetlands vary from mostly bare soil surface to a variety of agricultural species and invasive vegetation common to disturbed sites.

Palustrine forested (PFO) wetlands were mapped on Senecal Creek and the southern half of East Senecal Creek. The dominant tree is Oregon ash, with a few specimens of black cottonwood. The understory includes clustered wild rose, red-osier dogwood, and willow species. Herbaceous vegetation under the canopy is dominated by reed canarygrass.

Table 2. U.S. Fish and Wildlife Service Wetland Classes Mapped by the National Wetlands Inventory within the Woodburn UGB

Code	Cowardin Classification of NWI Mapped Wetlands within the Woodburn UGB
PEM1Y	palustrine, emergent, persistent, saturated/semipermanent/seasonal
PEM1Yx	palustrine, emergent, persistent, saturated/semipermanent/seasonal, excavated
PFO1W	palustrine, forested, broad-leaved deciduous, intermittently/flooded/temporary
PFO1Y	palustrine, forested, broad-leaved deciduous, saturated/semipermanent
POWKZh	palustrine, open water, artificially flooded, intermittently exposed/permanent, diked/impounded
POWKZx	palustrine, open water, artificially flooded, intermittently exposed/permanent, excavated
POWZ	palustrine, open water, intermittently exposed/permanent

Some wetlands in the Mill Creek basin are also PFO. The wetland that extends west onto Tukwila golf course from Mill Creek is partly PFO, with Oregon ash, red alder, black cottonwood, and willow trees. North of the confluence of this wetland and the wetland on the main stem of Mill Creek is a stand of large, black cottonwoods. This is the largest PFO wetland remaining in the Mill Creek bottomlands.

Two isolated wetlands also were classified as PFO. One is a linear stand of black cottonwood trees on the western side of the Southern Pacific Railroad tracks, just south of the intersection of the railroad and Settlemier Street. A second cottonwood stand is located on the western side of the drive-in theatre, southeast of the intersection of Hood Avenue and Highway 99 E.

Palustrine scrub/shrub (PSS) wetlands are found in several places in the inventory area. Scattered, small pockets of PSS wetlands are found along Mill Creek and in the wetland that extends from Mill Creek onto the golf course. Two isolated wetlands also were classified as PSS. At the northern end of Progress Way, water in a drainage ditch supports a PSS wetland dominated by willow species. This wetland extends northeast to the edge of the inventory area. The second isolated PSS wetland is on the future site of Centennial Park. This wetland is in an excavated area in a large, unused field. The combination of hydric soil and excavation apparently produces saturation or possibly shallow ponding in the excavation early in the growing season. Black cottonwood saplings are the dominant wetland vegetation on the site.

Open water wetlands (POW) are uncommon in Woodburn. A water feature consisting of the excavated floodplain of Mill Creek, which ponds approximately 1 acre of water, is the main open water feature in Woodburn's wetland system. This pond is mapped as part of wetland MC-1. The pond includes two small islands. Shoreline vegetation is predominantly reed canarygrass and Himalayan blackberry (*Rubus discolor*). At the time of the inventory, the surface of the pond had been reduced by evaporation and percolation to expose the pond bottom around the edges. Turbidity was high, possibly from algal growth and suspended sediments resulting from feeding activities of resident waterfowl observed on the pond.

Tukwila golf course has seven water hazards that were mapped on the inventory. The water level in the ponds is maintained by precipitation and surface runoff during wet periods. In the summer, water is added to the ponds by pumping water into them from the course's irrigation system. These water hazards are mostly unvegetated. Three of the water hazards were excavated in non-hydric soil, and therefore probably would not be considered jurisdictional wetlands.

Three stormwater detention facilities were mapped during the inventory. These facilities ameliorate runoff from impervious surfaces and remove sediments, petroleum products, and other deleterious materials that may be found in storm runoff from developed sites. These facilities also were constructed in non-hydric soil, and therefore probably would not be considered jurisdictional wetlands.

4.1.2 Location of the Wetlands

Figure 6 shows the location of individual wetlands, wetland complexes, and water bodies mapped in the inventory. Table 3 lists each wetland, its area, and its wetland classification. The 31 water resources listed in Table 3 total 99.88 acres. Seven of these wetlands totaling 72.13 acres, or 72 percent of the total, are adjacent to, or part of, wetland complexes associated with Mill Creek, Senecal Creek, or East Senecal Creek. The remaining features are isolated.

Of the total acres, 60.72 acres, or 61% are in the Mill Creek drainage basin. Wetlands directly associated with the main stem of Mill Creek were mapped in seven separate wetland complexes, some of which are composed of several smaller sub-units. Thirteen wetlands were mapped in the Mill Creek drainage that are not on the main stem of the creek. Seven ponds (water hazards) were mapped on the Tukwila golf course. One (wetland 8J) was mapped as part of wetland 8 because it was excavated in hydric soil and is hydrologically connected to wetland 8. Three stormwater detention facilities were mapped in this drainage basin.

Wetlands mapped in the Senecal Creek basin totaled 39.16 acres, or 39% of the wetlands mapped in the inventory. Wetlands directly associated with the main stem of Senecal Creek were mapped as one unit, totaling 23.02 acres, or 23% of the total mapped wetlands. Wetlands directly associated with the main stem of East Senecal Creek were mapped as one complex, with three sub-units. Total acreage of this complex is 12.81 acres, or 13% of the total. One wetland was mapped in the Senecal Creek basin that was not directly associated with either of the creeks.

4.2 Oregon Freshwater Wetland Assessment Methodology Results

Results of the OFWAM are summarized in Table 4. This table is useful primarily for obtaining an overview of the current and potential functional status of each wetland. The functional level of each assessed characteristic is shown for each wetland. These functional levels are derived directly from the assessment summary forms. Detailed responses used to generate the summary results are available on the data forms for each wetland, which are provided in Appendix B. This more detailed information (individual OFWAM data sheets) should be consulted before making decisions regarding any wetland.

4.3 Locally Significant Wetlands

Ten individual wetland sites or wetland complexes were determined to be locally significant based on the OFWAM analysis of significance (Table 5). Nine of these significant wetlands are along the main stem of Mill, Senecal, East Senecal, or Goose Creeks. These wetlands include the entire length of these streams within the inventory area. The tenth wetland is a short length of a minor drainage that flows directly into Mill Creek.

All the significant wetlands were given the highest rank for hydrologic control. This indicates that they serve important hydrologic control functions because of their location in developed areas and their ability to absorb floodwaters within floodplains.

Table 3. Woodburn Wetlands, Wetland Area, and USFWS Wetland Classification*

Wetland Code	Drainage Basin	USFWS Wetland Classification				Total Acreage
		PEM	PFO	PSS	POW	
MC-1	Mill Creek	7.44	0	0	1.31	8.75
MC -2	Mill Creek	1.64	0	0	0	1.64
MC -3	Mill Creek	3.72	0	0	0	3.72
MC -4	Mill Creek	0.19	0	0	0	0.19
MC -5	Mill Creek	4.88	0	1.45	0	6.33
MC -6	Mill Creek	1.24	0	0	0	1.24
MC -7	Mill Creek	2.15	0	0	0	2.15
MC -8	Mill Creek	14.70	1.05	0.50	1.16	15.86
MC -9	Mill Creek	0	0.35	0	0	0.35
MC -10	Mill Creek	0.29	0	0	0	0.29
MC -11	Mill Creek	2.06	0	0	0	2.06
MC -12	Mill Creek	0.58	0	0.17	0	0.75
MC -13	Mill Creek	0.43	0	0	0	0.43
MC -14	Mill Creek	0.06	0	0	0	0.06
MC -15	Mill Creek	2.0	0	0	0	2.0
MC-16	Mill Creek	0.96	0	0	0	0.96
MC-17	Mill Creek	0.99	0	0	0	0.99
MC-18	Mill Creek	0.19	0	0	0	0.19
MC-19	Mill Creek	2.07	0	1.89	0	3.96
MC-20	Mill Creek	0	1.61	0	0	1.61
MC-21	Mill Creek	0	0	0	0.16	0.16
MC-22	Mill Creek	0	0	0	0.54	0.54
MC-23	Mill Creek	0	0	0	0.84	0.84
MC-24	Mill Creek	1.41	0	0	0	1.41
MC-25	Mill Creek	0	0	0	0.92	0.92
MC-26	Mill Creek	0	0	0	1.07	1.07
MC-27	Mill Creek	0	0	0	0.07	0.07
MC-28	Mill Creek	0	0	0	0.18	0.18
SC-1	Senecal Cr.	0	11.51	11.51	0	23.02
SC-2	Senecal Cr.	6.06	0	6.75	0	12.81
SC-3	Senecal Cr.	0	0	3.33	0	3.33
	TOTALS	53.06	14.52	25.6	6.70	99.88

* Wetland type according to the wetland classification system developed by Cowardin, et al. ("Classification of Wetlands and Deepwater Habitats of the United States"; 1979) and used by the USFWS - NWI. ().
 PEM=Palustrine emergent, PFO=palustrine forested, PSS= palustrine shrub/scrub, POW=Palustrine open water.

Table 4. Summary of Oregon Freshwater Wetland Assessment Methodology (OFWAM) Results for City of Woodburn

Wetland Code	OFWAM Assessment Elements: Functions (F) and Conditions (C)									
	Wildlife Habitat (F)	Fish Habitat Streams (F)	Fish Habitat Lakes/Ponds (F)	Water Quality (F)	Hydrologic Control (F)	Education (F)	Recreation (F)	Enhancement Potential (C)	Aesthetic Quality (C)	Impact Sensitivity (C)
MC-01	Provides Limited	Impacted	N/A	Intact	Intact	Can Provide	Can Provide	High	Moderately Pleasing	High
MC-02	Provides Limited	Impacted	N/A	Impacted	Intact	Potential	Inappropriate	Low	Moderately Pleasing	Moderate
MC-03	Provides Limited	N/A	N/A	Impacted	Intact	Inappropriate	Inappropriate	Low	Moderately Pleasing	Moderate
MC-04	Provides Limited	Not Present	N/A	Intact	Intact	Potential	Inappropriate	Moderate	Moderately Pleasing	Moderate
MC-05	Provides Limited	Not Present	N/A	Intact	Intact	Potential	Inappropriate	Moderate	Moderately Pleasing	Moderate
MC-06	Provides Limited	N/A	N/A	Intact	Impacted	Can Provide	Potential	Moderate	Moderately Pleasing	Moderate
MC-07	Provides Limited	Impacted	Impacted	Impacted	Intact	Potential	Potential	Moderate	Moderately Pleasing	Moderate
MC-08 a-j	Provides Limited	Impacted	Impacted	Intact	Intact	Can Provide	Potential	Moderate	Moderately Pleasing	Moderate
MC-09	Provides Limited	N/A	N/A	Intact	Impacted	Potential	Inappropriate	Moderate	Moderately Pleasing	Moderate
MC-10	Provides Limited	N/A	N/A	Impacted	Impacted	Inappropriate	Inappropriate	Low	Moderately Pleasing	Moderate
MC-11	Provides Limited	N/A	N/A	Impacted	Impacted	Inappropriate	Inappropriate	Low	Moderately Pleasing	Moderate
MC-12	Provides Limited	N/A	N/A	Intact	Intact	Potential	Inappropriate	Low	Moderately Pleasing	Moderate
MC-13	Provides Limited	N/A	N/A	Impacted	Impacted	Potential	Inappropriate	Low	Moderately Pleasing	Moderate
MC-15	Provides Limited	N/A	N/A	Impacted	Impacted	Inappropriate	Inappropriate	Moderate	Moderately Pleasing	Moderate
MC-16	Provides Limited	N/A	N/A	Intact	Intact	Potential	Inappropriate	Low	Moderately Pleasing	Moderate
MC-17	Provides Limited	N/A	N/A	Impacted	Impacted	Inappropriate	Inappropriate	Low	Moderately Pleasing	Moderate
MC-18	Provides Limited	N/A	N/A	Impacted	Impacted	Inappropriate	Inappropriate	Moderate	Moderately Pleasing	Moderate
MC-19	Provides Limited	Impacted	N/A	Impacted	Impacted	Inappropriate	Inappropriate	Low	Moderately Pleasing	High
MC-20	Provides Limited	N/A	N/A	Impacted	Impacted	Inappropriate	Inappropriate	Moderate	Moderately Pleasing	Moderate
MC-24 a,b	Provides Limited	N/A	N/A	Impacted	Impacted	Potential	Inappropriate	Low	Not Pleasing	Moderate
MC21-23,25,26	Provides Limited	N/A	Impacted	Impacted	Intact	Potential	Potential	Low	Moderately Pleasing	Moderate

Note: N/A = Not applicable for this wetland

Summary of Oregon Freshwater Wetland Assessment Methodology (OFWAM) Results for City of Woodburn

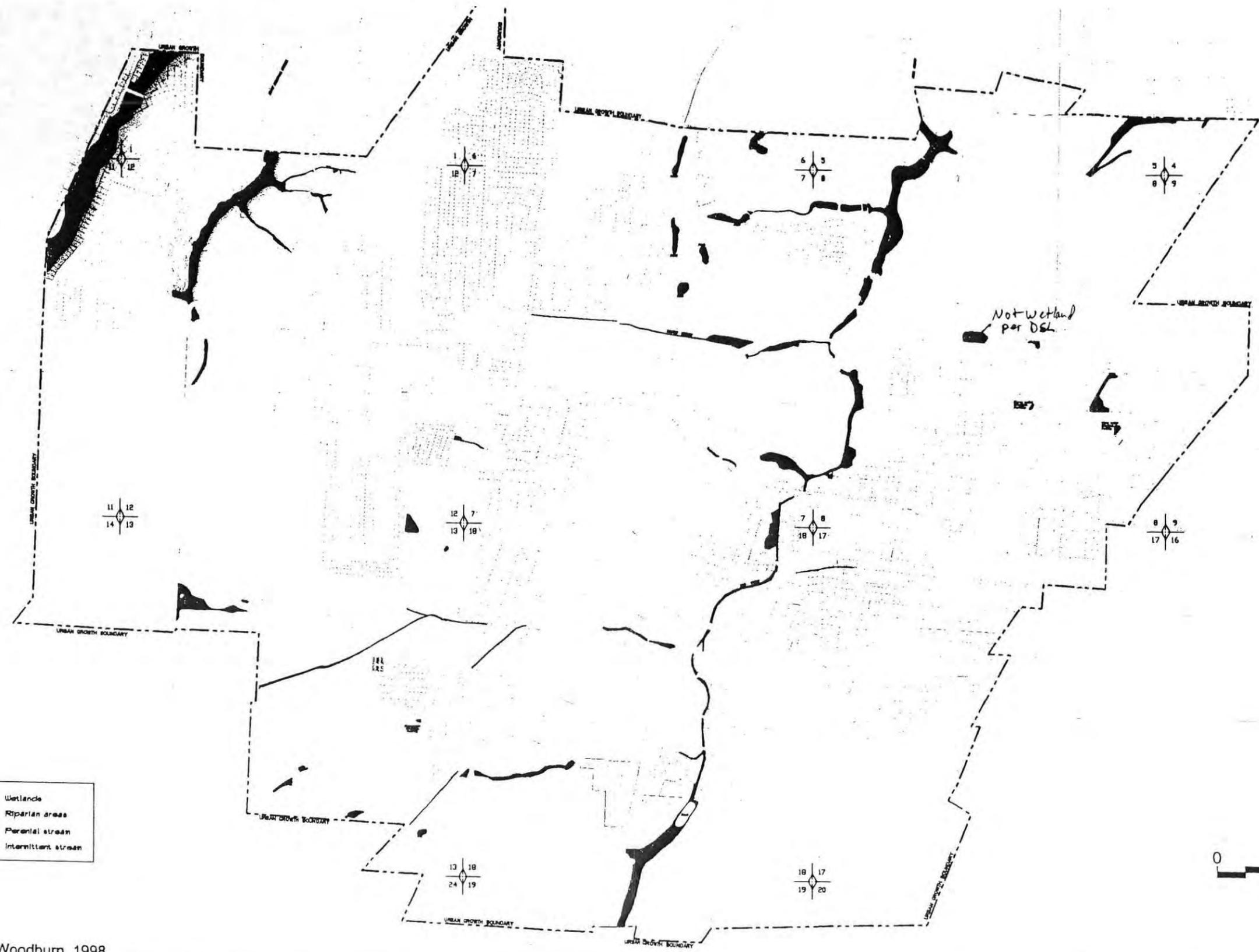
Wetland Code	OFWAM Assessment Elements: Functions (F) and Conditions (C)									
	Wildlife Habitat (F)	Fish Habitat Streams (F)	Fish Habitat Lakes/Ponds (F)	Water Quality (F)	Hydrologic Control (F)	Education (F)	Recreation (F)	Enhancement Potential (C)	Aesthetic Quality (C)	Impa Sensitiv
SC-01	Provides Limited	Impacted	N/A	Intact	Intact	Can Provide	Potential	Moderate	Moderately Pleasing	Moderate
SC-02 a-d	Provides Limited	Impacted	N/A	Impacted	Intact	Potential	Potential	Moderate	Moderately Pleasing	Moderate
SC-03	Provides Limited	N/A	N/A	Impacted	Impacted	Inappropriate	Inappropriate	Moderate	Moderately Pleasing	Moderate

Note: N/A = Not applicable for this wetland

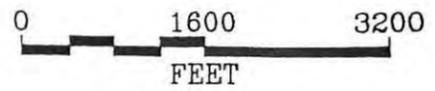
Shapiro and Associates, Inc., 1650 N.W. Naito Parkway, Suite 302, Portland, Oregon 97209

Table 5. Significant Wetlands and Wetlands of Special Interest for Protection

Wetland Code	Results of Local Wetland Significance Assessment	Results of Wetlands of Special Interest for Protection Assessment
MC-1	<ul style="list-style-type: none"> • Wetland scores the highest rank for hydrologic control. • Wetland is rated in either the highest or second highest category for water quality AND borders a water quality limited stream as listed by DEQ. 	
	<ul style="list-style-type: none"> • 	
MC-2	<ul style="list-style-type: none"> • Wetland scores the highest rank for hydrologic control. • Wetland is rated in either the highest or second highest category for water quality AND borders a water quality limited stream as listed by DEQ. 	
MC-3	<ul style="list-style-type: none"> • Wetland scores the highest rank for hydrologic control. • Wetland is rated in either the highest or second highest category for water quality AND borders a water quality limited stream as listed by DEQ. 	
MC-5	<ul style="list-style-type: none"> • Wetland scores the highest rank for water quality and hydrologic control, AND borders a water quality limited stream as listed by DEQ. 	
MC-6	<ul style="list-style-type: none"> • Wetland scores the highest rank for water quality and hydrologic control, AND borders a water quality limited stream as listed by DEQ. 	
MC-7	<ul style="list-style-type: none"> • Wetland scores the highest rank for hydrologic control. 	
MC-8	<ul style="list-style-type: none"> • Wetland scores the highest rank for water quality and hydrologic control, AND borders a water quality limited stream as listed by DEQ. 	
MC-16	<ul style="list-style-type: none"> • Wetland scores the highest rank for water quality and hydrologic control. 	
SC-1	<ul style="list-style-type: none"> • Wetland scores the highest rank for hydrologic control. 	
SC-2	<ul style="list-style-type: none"> • Wetland scores the highest rank for hydrologic control. 	Factory Outlet Store Mitigation
SC-3	<ul style="list-style-type: none"> • Wetland scores the highest rank for water quality. 	



-  Wetlands
-  Riparian areas
-  Perennial stream
-  Intermittent stream



Base map from City of Woodburn, 1998

2981036 1/5/00

Wetlands, riparian areas, and intermittent drainages identified by the Local Wetlands Inventory of the area within the City of Woodburn's Urban Growth Boundary.

FIGURE
6







Oregon

John A. Kitzhaber, M.D., Governor

Division of State Lands

775 Summer Street NE

Salem, OR 97301-1279

(503) 378-3805

FAX (503) 378-4844

TTY (503) 378-4615

December 22, 1999

State Land Board

John A. Kitzhaber
Governor

Bill Bradbury
Secretary of State

Jim Hill
State Treasurer

Mr. Richard Jennings
Mayor
City of Woodburn
270 Montgomery Street
Woodburn, Oregon 97071

Re: Approval of the City of Woodburn's Local Wetlands Inventory and Assessment

Dear Mayor Jennings:

I am pleased to notify you that the Division of State Lands has approved your Local Wetlands Inventory (LWI) and assessment. We appreciate your planning staff working closely with our staff and the wetland consultant to ensure that the inventory meets state LWI requirements (OAR 141-86-180 to 240) and the city's needs. The final inventory requirement is for the city to notify property owners with wetlands mapped on their property within 120 days of this approval.

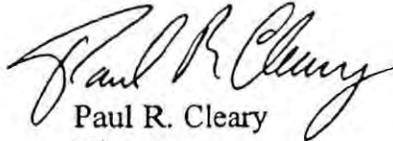
Approval by the Division means that the LWI becomes part of the Statewide Wetlands Inventory. The LWI must now be used by the city instead of the National Wetlands Inventory for the Wetland Land Use Notification Process (ORS 227.350). The LWI and functional assessment also form the foundation for your wetland planning under Statewide Planning Goal 5, and the LWI must be adopted by the city per the Goal 5 requirements. Please note that when significant wetlands are designated using the locally significant wetland criteria (OAR 141-86-300 through 141-86-350) the wetlands determined to be "not significant" may be coded to distinguish them from "locally significant wetlands," but must not be removed from the approved LWI maps. The "non-significant" wetlands are still subject to state and federal permit requirements.

While considerable effort has been made to accurately identify the wetlands within the study area, the Division's approval does not guarantee that all regulated wetlands have been mapped. Also, exact wetland boundaries have not been surveyed, and there are inherent limitations in mapping accuracy. The Division advises that persons proposing land alteration on parcels containing mapped wetlands first contact the Division or obtain a wetland boundary delineation by a qualified consultant and submit it to the Division for approval prior to the land alteration.



We are pleased that the City of Woodburn has conducted a thorough wetlands inventory and has made wetland planning a high priority. We look forward to working with you and your staff as you continue on the Goal 5 wetland planning effort.

Respectfully,


Paul R. Cleary
Director

cc: Steve Goeckritz, City of Woodburn
Teresa Engeldinger, City of Woodburn
Jim Hinman, DLCD
Dan Cary, Shapiro & Associates
Yvonne Vallette, EPA (enclosure forthcoming)
Brian Lightcap & Dan Gresham, Corps of Engineers (enclosure forthcoming)
John Marshall, FWS, Portland Field Office (enclosure forthcoming)
Patty Snow, ODFW (enclosure forthcoming)
Tom Melville, DEQ
Dennis Peters, FWS Regional Office
Steve Moser, DSL (enclosure forthcoming)
John Lilly, DSL

WOODBURN LOCAL WETLANDS INVENTORY

Wetland Summary Sheet

Date(s) of Field Verification: 08/04/98

Wetland Mapping Code: MC-07a,b

Investigator(s): JG/ES

Size (acres): 2.15

Location

Legal: T5S R1W S7

600, 2200, 22601, 7200, 7300,

Other: N. of Hwy 214, S. of Woodburn H.S. athletic fields

7400, 7500, 7600, 7800, 7900,

Basin: Mill Creek

8000, 8100, 8200, 18400, 18500,

18600, 18700, 18800

Soils

Mapped Series: Ba, Da

Hydrology

Hydrologic Source: Surface flow

Wetland Classification(s): PEM, RUB

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments

Goose Cr. emerges from a culvert at the NE corner of Lincoln Elementary School property. The channelized creek enters the wetland from the west and maintains the wetland's southern boundary. The east to west trending 50' by 450' site is a mowed field, sloping upward gently to the north. Soils were low in chroma with mottles and concretions.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)

PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsoli

Item No. 10

SHAPIRO Project Number: 2981036

Page 1153

Plot Location; Topography: Sloping mowed field south of Woodburn High School athletic fields, north of Hwy 214.

Project #: 2981036 Determined by: JG/ES Date: 8/4/98

DETERMINATION: IS THIS PLOT IN A WETLAND?

Do Normal Circumstances exist on the site? No

Explanation: Mowed field; channelized stream.

Are Soils Vegetation Hydrology significantly disturbed? Yes

Explanation: Mowed field; and channelized stream.

VEGETATION	Dominant Plant Species	Ind. %Cover:		Ind. %Cover:
Herb Stratum - % total cover:		100	Shrub/Sapling Stratum - % total cover: 0	
	<i>Alopecurus pratensis</i>	FACW 35		
	<i>Holcus lanatus</i>	FAC 35		
	<i>Festuca arundinacea</i>	FAC- 20		
	<i>Plantago lanceolata</i>	FAC 15		
	<i>Rumex acetosa</i>	NI 5		
	<i>Taraxacum officinale</i>	FACU 5		
Woody Vine Stratum - % total cover:		0	Tree Stratum - % total cover: 0	

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 2 of 3 = 67 % (50/20 Rule)

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Bashaw clay
 Drainage Class: poorly drained
 Taxonomy: Very fine, montmorillonitic, mesic, Typic Pelloxererts

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0-6"	10YR3/2	mottling, faint, common	fine sandy loam
	6-18"	10YR3/1		silty loam

- Histosol
- Histic epipedon
- Sulfidic odor
- Prob. Aquic moisture regime
- Reducing conditions
- Gleyed
- Redox features
- Concretions
- Highly organic surface layer
- Organic streaking
- Organic pan
- On hydric soils list

Soil Criterion Met? Yes

HYDROLOGY

Depth of inundation: N/A Depth to water table: >18" Depth to saturation: >18"

- Primary Indicators:
- Inundated
 - Saturated in upper 12"
 - Water marks
 - Drift lines
 - Sediment deposits
 - Drainage patterns
- Secondary Indicators (2 or more required):
- Oxidized rhizospheres
 - Water-stained leaves
 - Recorded data (aerials, groundwater data)
 - Explain:
 - Other
 - Explain:
 - Local soil survey data
 - FAC-Neutral test

Hydrology Criterion Met? Yes

Client/Applicant: City of Woodburn Site: MC-07 Plot: 16

T 5S R 1W S 7 City: Woodburn County: Marion State: OR

Plot Location; Topography: Mid-point of slope south facing slope; S of Woodburn HS athletic field, North of Hwy 214.

Project #: 2981036 Determined by: JG/ES Date: 8/4/98

DETERMINATION: IS THIS PLOT IN A WETLAND? No

Do Normal Circumstances exist on the site? No

Explanation: mowed field; channelized stream

Are Soils Vegetation Hydrology significantly disturbed? No

Explanation: Mowed field; and channelized stream.

VEGETATION	Dominant Plant Species	Ind. %Cover:		Ind. %Cover:
Herb Stratum - % total cover:		100	Shrub/Sapling Stratum - % total cover: 0	
	<i>Holcus lanatus</i>	FAC	20	
	<i>Poa pratensis</i>	FAC	10	
	<i>Leontodon leysleri</i>	UPL	10	
	<i>Rumex acetosella</i>	FACU	5	
	<i>Daucus carota</i>	UPL	5	
Woody Vine Stratum - % total cover:		0	Tree Stratum - % total cover: 0	

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 2 of 5 = 40 % (50/20 Rule)

Remarks: About 50% of cover is dead; dry grass (mowed).

Vegetation Criterion Met? No

SOILS Mapped Unit Name: Bashaw clay
Drainage Class: poorly drained
Taxonomy: Very fine, montmorillonitic, mesic Typic Pelloxererts

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0-6"	10YR4/3		Silt loam
	6-16"	10YR4/3		Silt loam

- Histosol
- Histic epipedon
- Sulfidic odor
- Prob. Aquic moisture regime
- Reducing conditions
- Gleyed
- Redox features
- Concretions
- Highly organic surface layer
- Organic streaking
- Organic pan
- On hydric soils list

Soil Criterion Met? No

HYDROLOGY

Depth of inundation: N/A Depth to water table: >16" Depth to saturation: >16"

- | | |
|---|--|
| Primary Indicators: | Secondary Indicators (2 or more required): |
| <input type="checkbox"/> Inundated | <input type="checkbox"/> Oxidized rhizospheres |
| <input type="checkbox"/> Saturated in upper 12" | <input type="checkbox"/> Water-stained leaves |
| <input type="checkbox"/> Water marks | <input type="checkbox"/> Recorded data (aerials, groundwater data) |
| <input type="checkbox"/> Drift lines | Explain: |
| <input type="checkbox"/> Sediment deposits | <input type="checkbox"/> Other |
| <input type="checkbox"/> Drainage patterns | Explain: |
| | <input type="checkbox"/> Local soil survey data |
| | <input type="checkbox"/> FAC-Neutral test |

Hydrology Criterion Met? No

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OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s)	08/04/98	Investigator(s)	JG/ES
Project Name	City of Woodburn		
Wetland Code	MC-07	Project Number	2981036

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: A	Q1: C	Q1: C	Q1: A	Q1: A	Q1: A
Q2: C	Q2: C	Q2: C	Q2: B	Q2: B	Q2: B
Q3: C	Q3: C	Q3: C	Q3: C	Q3: B	Q3: C
Q4: A	Q4: A	Q4: B	Q4: B	Q4: A	Q4: A
Q5: A	Q5: C	Q5: C	Q5: A	Q5: C	Q5: A
Q6: A	Q6: C	Q6: C	Q6: C	Q6: A	Q6: B
Q7: A				Q7: A	
Q8: C					
Q9a:					
Q9b: C					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: B	Q1: A	Q1: C
Q2: A	Q2: A	Q2: C	Q2: B
Q3: C	Q3: B	Q3: C	Q3: C
Q4: B	Q4: C	Q4: B	Q4: B
Q5a:	Q5: A	Q5: B	Q5: B
Q5b: B	Q6: B	Q6: B	Q6: B
Q6: B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat: Streams	The wetland's fish habitat function is impacted or degraded.
Fish Habitat: Lakes/Ponds	The wetland's fish habitat function is impacted or degraded.
Water Quality:	The wetland's water quality function is impacted or degraded.
Hydrologic Control:	The wetland's hydrologic control function is intact.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has moderate potential for enhancement.
Education:	The wetland has potential for educational use.
Recreation:	The wetland has the potential to provide recreational opportunities.
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

Wetland Code: MC-07

Project Number: 2981036

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	Two or more Cowardin wetland classes. Emergent veg. or wet meadow. Low degree of Cowardin class interspersion. More than 1 acre of unvegetated open water present. Wetland connected to another body of water by surface water. Wetland connected to other wetlands within a 3 mile radius. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	The wetland's fish habitat function is impacted or degraded.	Less than 50% of stream shaded by riparian vegetation. Physical character of stream channel extensively modified/piped. Stream contains less than 10% of instream structures. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge. No fish species present during the year.
<i>Fish Habitat - Lakes/Ponds</i>	The wetland's fish habitat function is impacted or degraded.	Less than 50% of stream shaded by riparian vegetation. Physical character of stream channel extensively modified/piped. Stream contains less than 10% of instream structures. One or more upstream reaches are listed moderate water quality. Residential/Industrial land use within 500 feet of wetland edge. No fish species present during the year.
<i>Water Quality</i>	The wetland's water quality function is impacted or degraded.	Surface flow (including streams and ditches) is wetland's primary source of water. Unable to determine evidence of flooding or ponding during the growing season (or unapplicable). Low (<60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Residential/Industrial land use within 500 feet of wetland edge. Upstream not listed as water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is intact.	All or part of wetland located within 100-year floodplain or enclosed basin. Unable to determine evidence of flooding or ponding during the growing season (or not applicable). Area is between 0.5 and 5 acres. Waterflow out of wetland is restricted or no outlet. Emergent veg. or wet meadow is dominant cover type. Residential/Industrial land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

Wetland Code: MC-07

Project Number: 2981036

Function	Evaluation Descriptor	Rationale
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is not being taken out of streams through active diking, drainage, or irrigation districts upstream. Upstream not listed as water quality limited in watershed upstream of the or adjacent to the wetland. Residential/Industrial (developed) land use within 500 feet of wetland's edge. Dominant Residential/Industrial (developed) land use within 500 feet of wetland's edge. Emergent veg. only or wet meadow is the dominant cover.
<i>Enhancement Potential</i>	The wetland has moderate potential for enhancement.	Wetland has lost one or more functions or one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control. Wetland's primary source of water is surface flow, including streams and ditches. Water flow into wetland is restricted and cannot be restored. Wetland's area is between 0.5 and 5 acres. Between 10 and 40 % of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland has potential for educational use.	Wetland site is open to the public for direct access or observation, but allowed only with permission. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, and observation of other features cannot be made. There is a maintained public access point within 250 feet of the wetland's edge. Access is not available for limited mobility.
<i>Recreation</i>	The wetland has the potential to provide recreational opportunities.	There is a maintained public access point within 250 feet of wetland's edge. Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	One Cowardin class is visible from primary viewing area(s). Between 25 and 50% of wetland is visible from viewing area(s). General appearance of wetland has visual

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-07

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
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detractors which cannot be removed easily. Visual character with surrounding area is landscaped or manipulated by people. At certain times, unpleasant odors are present at the primary viewing location. Continuous traffic and other intrusive noise and natural sounds are audible at primary viewing location.

Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: MC-07

Question 1 **B**
 List:

Question 2 **B**
 List:

Question 3 **B**
 List:

Question 4 **B**
 List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
 List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

EXHIBIT 4-E

4-E

TECHNICAL REPORT 1

**BUILDABLE LANDS
INVENTORY**

DRAFT

**TECHNICAL REPORT 1
BUILDABLE LANDS INVENTORY**

INSIDE THE PROPOSED WOODBURN URBAN GROWTH BOUNDARY

Prepared for:

**CITY OF WOODBURN
270 Montgomery Street
Woodburn, OR 97071**

Prepared by:

**WINTERBROOK PLANNING
310 SW Fourth, Suite 1100
Portland, Oregon 97204**



Revised July 2005

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INTRODUCTION

The City of Woodburn is reviewing land use inside its urban growth boundary (UGB) to determine how much land is available for residential, commercial, industrial, and public/semipublic use. This technical report addresses Task 4 of the City of Woodburn's revised Periodic Review Work Program by revising methodology used in the 2000 Buildable Lands Inventory performed by McKeever/Morris and creating a new Buildable Lands Inventory based on Woodburn's new zoning code, the revised methodology consistent with ORS 197, and site-specific review of actual development.

This work was funded in part by a Land Conservation and Development Commission (LCDC) periodic review grant. To address Task 4 of this grant, the City contracted with Winterbrook Planning to prepare an inventory of buildable lands inside the UGB. This inventory consists of a GIS database that contains area per tax lot by comprehensive plan designation and by existing zoning, less constraints such as natural resources and infrastructure (streets/easements).

This information contained in this technical report will be useful in addressing:

- Statewide Planning Goal 9 (Economic Development)
- Statewide Planning Goal 10 (Housing);
- Statewide Planning Goal 12 (Transportation);
- Statewide Planning Goal 14 (Urbanization);
- ORS 197 requirements; and
- OAR 660 requirements.

To meet employment needs as determined by Woodburn's Revised Economic Opportunities Analysis (ECONorthwest, 2001) and Goal 9 (Economic Development), Woodburn must determine if there is enough land, with the right locational and size characteristics, inside its UGB to accommodate target industries. This technical report and associated Buildable Lands Map shows a) how much aggregate vacant or redevelopable commercial and industrial land is available to meet future needs; b) where these parcels are; and c) the size characteristics of each parcel.

To meet residential needs as determined by Periodic Review Task 3 (Housing Needs Analysis) and Statewide Planning Goal 10 (Housing) and also to inform Task 3 as required by ORS 197.296, Woodburn must determine how much residential land is available and usable (buildable) within the UGB for each comprehensive plan designation. This technical report and associated Buildable Lands Map describes a) the aggregate buildable area of parcels within each residential comprehensive plan designation; b) the size and locational characteristics of each parcel; and c) the capacity of each parcel to accommodate households.

The Buildable Lands Inventory can be used to inform Periodic Review Task 2 (Coordination with ODOT), and by association Statewide Planning Goal 12 (Transportation), by determining the type and amount of development potential that exists within the current UGB. This information will be used by ODOT to model impacts of development on the transportation system from each Transportation Analysis Zone (TAZ).

Finally, the Buildable Lands Inventory is of critical importance to determination of need to maintain, expand, or contract Woodburn's UGB, as described in ORS 197.296.

This Buildable Lands Inventory begins by describing buildable lands within Woodburn's existing (2002) UGB, then details buildable lands within the 2005 Plan – a UGB expansion that meets identified residential, public, and employment needs.

The 2005 Revisions are based on comments by the Department of Land Conservation and Development, Marion County, and others regarding the methods and results of the 2003 Buildable Lands Inventory. The 2005 BLI also takes into account Council direction regarding the relocation of the UGB in response to public comments.

FINDINGS OVERVIEW

Tables A and B describe existing buildable lands within the Woodburn UGB as of 2002 in "net buildable" acres (described in the Methodology section below). There were about 108 acres of commercial land, 127 acres of industrial land, 403 acres of low density residential land, 108 acres of medium-high density residential land, and 6 acres of public/open space land.

Table A: Buildable Lands Summary, 2002 UGB

Plan Designation	Total Acres	Net Buildable Acres	Unit Capacity (RES) or Employee Capacity (IND, COM)
Commercial	599	108	2,135
Industrial	685	127	1,755
Residential <12	1,478	403	2,190
Residential > 12	385	108	1,256
Public (open space)	94 (583)	6	NA

Table B describes the lot sizes of tax lots within the 2002 UGB. The vast majority of tax lots are under 1 acre in size. Of note, there are only 5 buildable (as described in the Methodology section below) tax lots over 20 acres in size within the 2002 UGB, and none are planned for industrial use.

Table B: Buildable Lots by Size, 2002 UGB

Plan Designation	Lots < 1 Acre	Lots 1-5 Acres	Lots 6-10 Acres	Lots 11-20 Acres	Lots 20-50 Acres	Lots > 50 Acres
LDR	313	24	2	4	3	1
MDR	40	10	2	3	0	0
Commercial	49	13	2	1	1	0
Industrial	13	17	3	3	0	0

Table 1 (Buildable Lands Summary) provides the net buildable area, in acres, of land in each comprehensive plan designation inside Woodburn's 2005 Plan UGB, including assumptions regarding infill and redevelopment as described in the Methodology section of this report. Table

Item No. 10 describes lot sizes of buildable lands by plan designation within the 2005 Plan
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UGB. The difference in net acres between the 2005 Plan and the 2002 UGB is approximately 30 net buildable acres of Commercial land, 360 net buildable acres of Industrial land, 8 fewer net buildable acres of Low Density Residential land, 108 acres of residential exceptions area, 220 additional acres of Nodal LDR, 35 fewer acres of Medium Density Residential land, and an additional 73 acres of Nodal MDR. These expansions include a substantial number of lots with over 1 net buildable acre, and 6 additional industrial lots with over 20 net buildable acres each to meet identified industrial siting needs.

The dwelling unit capacity figures must be viewed in the context of the Residential Needs Analysis (Technical Report 2), which includes a need for 210 acres of residential land for park, school, religious, and group housing uses. Meaning 210 acres of this residential land supply will not be used for dwelling units. Industrial siting needs are defined by ECONorthwest's 2003 Memorandum titled "Site Requirements for Woodburn Target Industries", and further explained in the UGB Justification Report. The 2005 Plan creates a range of industrial sites and provides choice in the marketplace. Not all of the industrial land proposed by this plan is expected to develop by 2020.

Table 1: Buildable Lands Summary, 2005 Plan

Plan Designation	Net Buildable Acres	Unit Capacity (RES) or Employee Capacity (IND, COM)
Commercial	127	2,800
Industrial*	407	4,500
Low Density Residential	371	2,976
Residential Exception Area	108	295
Nodal LDR	220	1,758
Medium Density Residential	80	1,102
Nodal MDR	73	1,307

*See discussion below regarding availability of industrial land inside the existing UGB to meet needs of targeted industries.

Table 2: Buildable Lots by Size, 2005 Plan

Plan Designation	Lots < 1 Acre	Lots 1-5 Acres	Lots 6-10 Acres	Lots 11-20 Acres	Lots 20-50 Acres	Lots > 50 Acres
LDR	154	26	3	4	7	0
Nodal LDR	2	0	2	3	0	2
MDR	38	8	3	1	0	0
Nodal MDR	3	3	4	2	0	0
Commercial	57	17	2	1	1	0
Industrial	11	11	3	4	4	2

DEFINITIONS

Vacant Land is both: (a) parcels greater than or equal to (\geq) 4,356 square feet with improvement value of less than or equal to (\leq) \$5,000 which do not have an approved building permit;¹ and (b) parcels with an area greater than or equal to (\geq) 5.0 acres with a single family residence, with 0.2 acres subtracted to account for the residence, regardless of the zoning district. Vacant land may be constrained or unconstrained².

Buildable Land means all land in urban and urbanizable areas that are suitable, available, and necessary for residential uses. Buildable land includes both vacant land and developed land likely to be redeveloped. (OAR Chapter 660, Division 8, Housing)

Subdivision lots are platted lots under $\frac{1}{2}$ acre in size within existing subdivisions. In residentially planned areas, subdivision lots are assigned one dwelling unit each.

Partially Vacant Lands are parcels over 1 acre in size with existing development, but with accessible vacant areas identified through aerial photograph review with city staff. Areas of existing development are removed from the total area of the parcel and the rest is considered buildable.³

Potential Residential Infill land is residentially planned parcels between 0.5 and 5.0 acres with a single-family residence, with 0.20 acres subtracted to account for the residence, regardless of zoning district.⁴

Constrained Vacant Land means vacant land less the portion of each vacant parcel limited by any of the following:

- I. Land within the 100-year floodplain.
- II. Land within natural drainageways and associated slopes of 25% or greater.
- III. Land classified as wetlands in the National Wetlands Inventory or in 50' stream corridors for fish-bearing streams.
- IV. Unavailable parcels: parcels under public or common ownership (e.g., a PUD with common open space) are considered "unavailable" for meeting long-term growth needs.

¹ Existing parcels, outside of approved subdivisions, of less than 4,356 square feet do not meet minimum lot size requirements and are considered unbuildable. Parcels with improvement values of \$5,000 or less are considered vacant.

² Parcels of commercial or industrial land greater than $\frac{1}{2}$ acre with a house were considered vacant with a $\frac{1}{2}$ acre buildable area deduction for the house.

³ The City of Woodburn contacted representatives of all Industrial lands identified as partially vacant through this method. Parcels were not considered available to meet new industrial siting needs – as identified by ECONorthwest in a 2003 memorandum titled "Site Requirements for Woodburn Target Industries" and further explained in the UGB Justification Report – if the current industrial owner was actually using them or if they are being held for future expansion of the existing industry. These parcels continue to be available for future employees.

Item No. 10 :maining single-family residence represents what is likely to occur during the planning
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Potential Redevelopment Commercial or Industrial Land means developed commercial or industrial parcels with improvement-to-land-value ratios of 1:1 or less.⁵

Developed Land is land not included within the vacant buildable land categories. That is, land which is not suitable or available to meet long-term growth needs.

A *Gross Vacant Acre* is an acre of vacant land *before* land has been dedicated for public right-of-way, private streets or public utility easements. Assuming 20% for streets and utilities, a gross vacant acre will have 34,848 square feet of vacant land available for construction and 8,712 square feet available for streets. Land that has *not* been subdivided into residential lots falls into this category. Winterbrook used right-of-way assumptions of 20% for low density residential land, 10% for medium density residential, 15% for nodal medium density residential, 10% for commercial, and 15% for industrial lands.⁶

A *Net Buildable Acre* is a full acre of vacant land, *after* land has been dedicated for public right-of-way, private streets, or utility easements. A net buildable acre has 43,560 square feet available for construction, because no additional street or utility dedications are required. Subdivided lots fall into the "net residential" category.

Maximum Gross Density means the maximum density permitted by the underlying residential zone on 43,560 square feet of vacant, buildable land, less land for streets and utilities.

Maximum Net Residential Density means the maximum density permitted by the underlying residential zone on 43,560 square feet of vacant, buildable land.



INVENTORY METHODS

1. *Refining data pool.* City of Woodburn Public Works supplied Winterbrook with a parcel database, including all parcels within the Woodburn UGB, with Marion County Tax Assessor data. Woodburn public works also provided comprehensive plan and zoning overlays. Since the comprehensive plan and zoning overlays were not matched up to tax lots or each other, Winterbrook contracted EcoTrust to create a database with both comprehensive plan and zoning by tax lot.

⁵ Commercial and Industrial parcels of less than 1/2 acre with improvement value were considered potentially redevelopable if the value of the improvement was less than the value of the land. The 2000 Buildable Lands and Urbanization Project identified lands with improvement to land value of 30% or less as redevelopable. None of the 4 parcels, comprising 0.8 acres, identified for Industrial redevelopment in the 2000 study have redeveloped for industrial use as of 2004.

⁶ Right-of-way assumptions for low density residential were on average 22% right-of-way in subdivisions developed from 1998 to 2003. Reduced right-of-way assumptions for medium density residential reflect more efficient land use. Nodal medium density residential land includes alleys, which increases right-of-way but still uses less than low density residential. Commercial and industrial lands are assumed to have more campus-oriented development which decreases use of right-of-way. Internal right-of-way was not removed from industrial lands in the Southwest Industrial Reserve area that cannot be further subdivided.

2. **Labeling and Sorting.** Winterbrook applied a labeling and sorting process to the UGB parcel inventory to create a Buildable Lands Inventory. This process is described below:
 - a) Winterbrook sorted the UGB inventory by Plan designations and specific zones.
 - b) Winterbrook applied definitions (established above) of vacant buildable, potential infill, and potentially redevelopable to all the parcels.
 - c) If public parcels have uses such as developed parks, schools, and public agencies, these parcels are considered developed. Otherwise, the parcels are considered vacant buildable and accounted for in public land supply.
 - d) There were hundreds of unbuildably small or inaccessible sliver or tract parcels, as well as easements, in the inventory. Winterbrook used parcel information and aerial photographs to label and remove these parcels from the buildable lands inventory.
3. **Constraints.** Not all vacant lands are buildable. They may be constrained by natural or environmental features such as steep slopes, floodplains, wetlands and stream corridors; or factors such as lack of access or small parcel size. The Goal 5 administrative rule limits the buildability of land within protected "stream corridors" or associated wetlands. Winterbrook has identified these constraints within the city and the study areas and removed the constrained area from the buildable lands total for each study area.
4. **Verification.** Winterbrook relied on year 2000 aerials that the City provided, as well as on-site inspection and corroboration from local officials to assure accuracy.
5. **Preliminary tables.** Winterbrook created a series of tables to describe the results of the buildable lands inventory.
6. **Proposed efficiency measures and UGB amendments.** Winterbrook worked with the City of Woodburn to address needs identified in the Land Needs Analysis (Technical Report 2) through efficiency measures and UGB amendments.
7. **Revised tables.** Winterbrook created a series of tables to describe the buildable lands inventory as it would look with suggested plan amendments.

Review of Existing Information

A review of existing literature, maps, and other source materials was conducted to identify wetlands, stream corridors, floodplains, and special status species, or site characteristics indicative of these resources, within the study area. The document review included the following sources of information:

- **Marion County Tax Assessor's data (Marion County, 2002)** – A comprehensive database of all parcels in Yamhill category. Each parcel data includes lot ID, land use, parcel size, owner, address, and other tax-related information. Tax assessor's data will provide the parcel base for the Inventory.
- **City of Woodburn Building Permit, Land Division, and Subdivision data (City of Woodburn, 2002)** – These compilations include site plans, building permit summaries, and related approvals during the recorded history of the City. Winterbrook used data from 1985 to 1998 (the period from the last periodic review to the present).

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- **Woodburn Development Ordinance (City of Woodburn, 2002)** – This ordinance describes zoning districts and development standards in Woodburn. Zoning information from the Development Ordinance was incorporated into the Inventory spreadsheets and mapping.
- **Maps and data from Woodburn Public Works** – Woodburn Public Works has maps and data relating to the City’s topography, tax lots, zoning, drainage, sewer and water systems. These maps and data will form the base for the mapping portion of the Inventory.

City of Woodburn and Marion County GIS data

- Study area (with subareas)
- City of Woodburn UGB
- Parcels
- Zoning
- Streets
- Streams
- LWI Wetlands
- Public parks and open space

Local Sources

- *City of Woodburn Comprehensive Plan*. City of Woodburn Planning Department, October 1999 (amended).
- City of Woodburn Street/Address map. City of Woodburn Public Works Department, Engineering Division, January 10, 2002.
- *Official Zoning Map of the City of Woodburn, Oregon*. City of Woodburn, July 1, 2002 (last revision). (Includes Significant Wetlands and other wetlands.)
- Ortho photographs (color, April 7, 2000; scale: 1” = 100’)
- Planimetrics (horiz. datum NAD 83(91); Or. State Plan North zone, intl. ft.; vert. datum NGVD 29, 1947 adj.)
- Topography (photo date 4/7/00; scale: 1” = 100’; contour interval: 2’) (part of Planimetrics).



FINDINGS

Residential

To determine Woodburn’s current supply of residential land, we followed the basic methodology laid out in the methodology section of this report – that is, we determined which residentially planned parcels were vacant, which were developed and which could be classified as “potential infill”, then took out environmentally protected lands and future right-of-way. What is left is a residential buildable lands inventory. Residential buildable lands parcel tables are found at the end of this document in Tables 11-14.

However, only determining the acreage of buildable residential parcels may not be an accurate method of determining how many households can be accommodated in Woodburn, so we took it a step further. Every buildable parcel was assigned a number of potential dwelling units, based

on comprehensive plan designation. For example, seven 8,000 square foot parcels in a 7,000 square foot minimum lot size zone provide us with seven potential dwelling units, rather than eight. We assumed development at 14 units/net acre for land planned for MDR, 18 units/net acre for MDR within the Parr Road Nodal Overlay, 5.5 units/net acre for land planned for LDR, and 7.5 units/net acre for LDR within the Parr Road Nodal Overlay.⁷ In addition, platted subdivision lots should logically be assigned one dwelling unit each, rather than counting their combined acreage as buildable. The dwelling unit figures follow this methodology.

The residential vacant buildable land inventory is summarized in Table 3, below. There are 332 total vacant buildable acres of land outside of residential exceptions areas planned for low density residential (LDR), sufficient to supply 1,780 total dwelling units. There are 206 total vacant buildable acres of land planned for nodal low density residential (NLDR), sufficient to supply 1,645 total dwelling units. There are 44 total vacant buildable acres of land planned for medium-high density residential (MDR), sufficient to supply 590 total dwelling units. There are 67 total vacant buildable acres of land planned for nodal medium-high density residential (NMDR), sufficient to supply 1,191 total dwelling units.

Table 3: Residential Vacant Buildable Lands, 2005 Plan

Plan Designation	Net Buildable Acreage	Potential DU Capacity
LDR	196	1,006
Expansion LDR	136	774
Nodal LDR	139	1,107
Expansion Nodal LDR	67	538
MDR	44	590
Expansion MDR	8	105
Nodal MDR	22	389
Expansion Nodal MDR	45	802
Total	679	5,311

Residential Infill and Partially Vacant Lands

As stated in the definitions section of this report, *Potential Residential Infill land* consists of residentially planned parcels between 0.5 and 5.0 acres with a single-family residence, with 0.20 acres subtracted to account for the residence, regardless of zoning district. Partially vacant residentially planned lands are parcels over an acre with substantial development as well as vacant land.

As shown in Table 4, residential infill land is found only in lots designated for LDR and MDR. The majority of residential infill land is in the LDR designation, with 34 acres. MDR contains 1 acre of potential residential infill land.

Table 4: Residential Capacity from Infill, 2005 Plan

Plan Designation	Potential Infill Acres	Potential Infill Capacity
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Item No. 10 UGB shows average lot sizes of about 7,800 square feet, or about 5.6 units/acre, among
 Page 1174 vacant lots planned for R<12.

		(DU)
LDR	34	161
MDR	1	11
Total	35	172

Table 5 shows partially vacant residential area and potential dwelling unit capacity for the proposed UGB. There are a total of 53 acres of partially vacant residential lands, including 3 acres of LDR, 14 acres of Nodal LDR, 3 acres of LDR in proposed expansion areas, 28 acres of MDR, and 5 acres of Nodal MDR in expansion areas.

Table 5: Residential Capacity from Partially Vacant Lands, 2005 Plan

Plan Designation	Partially Vacant Area	Potential Partially Vacant Capacity (DU)
LDR	3	17
Nodal LDR	14	113
Expansion LDR	3	13
MDR	28	396
Expansion Nodal MDR	5	96
Total	53	635

Exceptions Areas

For the purpose of this report, exceptions areas are areas outside of an Urban Growth Boundary with Goal 14 exceptions for residential uses in a rural area. Woodburn is including all adjacent exceptions areas with buildable land into its UGB through this process. Exceptions areas are generally developed inefficiently below urban residential densities. The development pattern includes houses on large parcels, often some farm development, and generally an inefficient access pattern (See Figure 1: Development Pattern of Exception Area). This combination makes development at urban densities more difficult. Due to this difficulty, we assumed densities within exceptions areas would average around 3 units per net buildable acre, in addition to existing residential development.⁸ As shown on Table 6 below, there are 61 buildable residential exception area tax lots with a total capacity of 295 dwelling units. The Residential Exception Area parcel table is found in Appendix A to this document as Table 15.

Table 6: Residential Capacity from Exceptions Areas, 2005 Plan

Site Description	Exception Area Parcels
Sites <2ac	43
Acres	44
Sites 2-5ac	16
Acres	47

⁸ Lots with existing developments had 0.2 acres removed to account for the residence. There were 8 partition or subdivision applications approved in the City of Woodburn during the 5-year period from 2000 through 2004. These land divisions resulted in 24 lots on 9.8 acres, for an average density of about 2.4 units per gross acre.

Sites 6-10ac	2
Acres	17
Total Sites	61
Total Acres	107
Potential Exception Units	295

Figure 1: Development Pattern of Exception Area



Employment

There are two objectives to the employment lands analysis of this Technical Report. First, to determine vacant, partially vacant, and potentially redevelopable commercial and industrial lands. Second, to determine which of the available industrial lands can meet industrial siting

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needs identified in Woodburn's Economic Opportunities Analysis and further described in ECONorthwest's 2003 memorandum titled "Site Requirements for Woodburn Target Industries".

Buildable Commercial and Industrial Land Supply

The proposed UGB contains a total of 80 vacant parcels for employment comprising 472 total net buildable acres. Industrial lands include 16 vacant parcels inside the UGB totaling 36 acres, and 11 parcels in the proposed Southwest Industrial Reserve expansion area totaling 359 acres. The supply of vacant commercial land inside the 2002 UGB consists of 48 tax lots totaling 54 acres. The vacant buildable commercial expansion included within the 2005 plan is 4 tax lots totaling 10 acres.

Parcel Tables for vacant commercial and industrial lands are found in Appendix A to this document, Tables 16-19.

Table 7: Vacant Buildable Commercial and Industrial Land, 2005 Plan

Plan Designation	Number of Parcels	Net Buildable Acres
Industrial	16	36
Expansion IND - SWIR	11	359
Commercial	48	54
Expansion COM	4	10
Total	79	459

Partially Vacant Employment Lands

There were 8 tax lots designated for industrial use inside the 2002 UGB that Winterbrook determined initially to be partially vacant. Woodburn staff contacted the owners of these properties to determine if the land was available for new employment firms or held for future expansion by existing employers on site. Seven of the 8 tax lots identified as partially vacant were being held for future expansion of existing uses. These industrial lots comprised 54 acres and were removed from the inventory for purposes of industrial siting needs comparisons. Partially vacant industrial land suitable to meet new targeted employment uses consist of 1 tax lot with 4 net buildable acres inside the 2002 UGB, and 1 tax lot with 4 net buildable acres within the 2005 Plan expansion area.

Winterbrook identified 5 partially vacant commercial lots, totaling 52 net buildable acres inside the 2002 UGB. The 2005 Plan expansion includes 13 additional partially vacant commercial lots totaling 8 net buildable acres.

Parcel tables for partially vacant industrial and commercial lands are found in Appendix A to this document, Tables 20-23.

Table 8: Partially Vacant Commercial and Industrial Land, 2005 Plan

Plan Designation	Partially Vacant Lots	Partially Vacant Acres
Industrial	1	4
Expansion IND	1	4

Commercial	5	52
Expansion COM	13	8
Total	20	68

Potential Redevelopment Employment Lands

Winterbrook identified a total of 20 industrial and commercial tax lots as potentially redevelopable under the methodology based on improvement vs assessed value as described at the beginning of this document. Additional review of aerial photographs, lot, and street patterns removed two of the potential redevelopment lots, totaling 6 acres, as they were being used for storage as part of neighboring industrial uses.

As shown in Table 9 below, there are 12 commercial and 6 industrial parcels identified as potentially redevelopable, totaling 9 acres.

Parcel tables for potential redevelopment commercial and industrial lands are found in Appendix A to this document, Tables 24-25

Table 9: Potential Redevelopment Commercial and Industrial Land, 2005 Plan

Plan Designation (Zone)	Number of Parcels	Potential Net Buildable Acres
Commercial	12	2
Industrial	6	7
Total	18	9

Industrial Parcel Sizes

Table 10 below summarizes the number and acreage of buildable industrial tax lots by lot sizes. These include vacant, partially vacant, and redevelopable industrial tax lots. This document should be viewed as part of an iterative process in conjunction with the Southwest Industrial Reserve (SWIR) area planning and zoning effort. The SWIR reallocates land within tax lots and common ownerships and defines projected site sizes. The SWIR is detailed in the UGB Justification Report and proposed Comprehensive Plan and Development Ordinance amendments. There are a total of 41 sites with 407 net buildable acres available in the 2005 Plan to meet future new employment siting needs.

Table 10: Buildable Industrial Sites by Size (Net Buildable Acres), 2005 Plan

	<2	2-5	5-10	10-25	25-50	50-100	100+	Totals
Number	16	9	7	4	3	1	1	41
Net Buildable Acres	8	30	49	56	103	65	96	407

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APPENDIX A: PARCEL TABLES

Table 11: Vacant Residential Taxlots – Existing UGB

Residential Vacant Taxlots – Existing UGB	OWNER_NAME	ZONING	Dev	AC	Net Build Area	LDR AC	LDR DU	Nod LDR AC	Nod LDR DU	MDR AC	MDR DU	Nod MDR AC	Nod MDR DU
051W06C 01200	WELLMAN,GENE M & PATRICIA C	NONE	Vac	0.9	0.7	0.7	5	0.0	0	0.0	0	0.0	0
051W06CD01200	MILLER,GARY LEE LLC	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W06CD01700	M-C BUILDERS INC	RS	Vac	0.4	0.3	0.3	2	0.0	0	0.0	0	0.0	0
051W06CD03200	MILLER,DONALD	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W06CD03900	FIOCCHI,JOHN &	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W06CD05500	MILLER,GARY LEE LLC	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W06CD05700	SERGE SERDSEV CONSTRUCTION LLC	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W06CD07200	HERITAGE MEADOWS LLC	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W06CD09100	HERITAGE MEADOWS LLC	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W06CD09900	HERITAGE MEADOWS LLC	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W06CD10000	HERITAGE MEADOWS LLC	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W06CD10800	HERITAGE MEADOWS LLC	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W06CD10900	HERITAGE MEADOWS LLC	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W06CD11700	HERITAGE MEADOWS LLC	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W06D 00602	OREGON GOLF ASSOCIATION	RS	Vac	1.0	0.8	0.8	5	0.0	0	0.0	0	0.0	0
051W06DC01900	TUKWILA PARTNERS	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W06DC02700	TUKWILA PARTNERS	RS	Vac	0.9	0.7	0.7	4	0.0	0	0.0	0	0.0	0
051W07AA05500	IRONWOOD AT TUCKWILA HOMEOWNERS	RS	Vac	0.3	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07AA07400	TUKWILA PARTNERS	RS	Vac	24.6	19.7	19.7	135	0.0	0	0.0	0	0.0	0
051W07AA08300	UNITED PROPERTIES OREGON INC	RS	Vac	0.4	0.3	0.3	1	0.0	0	0.0	0	0.0	0
051W07AB00400	HAZELNUT A PARTNERS	RS	Vac	0.4	0.3	0.3	2	0.0	0	0.0	0	0.0	0
051W07AB00500	HAZELNUT A PARTNERS	RS	Vac	0.8	0.7	0.7	4	0.0	0	0.0	0	0.0	0
051W07AB00600	HAZELNUT A PARTNERS	RS	Vac	0.6	0.5	0.5	3	0.0	0	0.0	0	0.0	0
051W07AB00700	WITHERS LUMBER CO INC	RS	Vac	0.6	0.5	0.5	3	0.0	0	0.0	0	0.0	0
051W07AB00800	HAZELNUT A PARTNERS	RS	Vac	0.5	0.4	0.4	2	0.0	0	0.0	0	0.0	0
051W07AB02600	TUKWILA PARTNERS	RS	Vac	2.2	1.8	1.8	12	0.0	0	0.0	0	0.0	0
051W07AB02601	TUKWILA PARTNERS	RS	Vac	12.4	9.9	9.1	62	0.0	0	0.0	0	0.0	0

Residential Vacant Taxlots - Existing UGB	OWNER_NAME	ZONING	Dev	AC	Net Build Area	LDR AC	LDR DU	Nod LDR AC	Nod LDR DU	MDR AC	MDR DU	Nod MDR AC	Nod MDR DU
051W07AB03200	TUKWILA PARTNERS	RS	Vac	2.9	1.9	1.9	12	0.0	0	0.0	0	0.0	0
051W07AB04400	TUKWILA PARTNERS	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07AB05900	TUKWILA PARTNERS	RS	Vac	0.5	0.4	0.4	2	0.0	0	0.0	0	0.0	0
051W07AC01900	KRAITER,GENE R &	RS	Vac	0.3	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07BA00200	WOODBURN ART LEAGUE	RS	Vac	0.3	0.3	0.3	1	0.0	0	0.0	0	0.0	0
051W07BA00600	CITY OF WOODBURN	RS	Vac	2.5	2.0	2.0	13	0.0	0	0.0	0	0.0	0
051W07BA01000		RM	Vac	1.5	1.2	0.0	0	0.0	0	1.2	21	0.0	0
051W07BA02400	CITY OF WOODBURN	RS	Vac	0.3	0.3	0.3	1	0.0	0	0.0	0	0.0	0
051W07BC17500	TOWN GROUP INC, THE	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07BC17700	CASE,M D &	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07BC19800	M D CASE	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07BD00200		RM	Vac	0.8	0.6	0.0	0	0.0	0	0.6	10	0.0	0
051W07BD00300		RM	Vac	0.2	0.2	0.0	0	0.0	0	0.2	2	0.0	0
051W07BD00400		RM	Vac	0.8	0.6	0.0	0	0.0	0	0.6	10	0.0	0
051W07BD03800	CHRISTIANSSEN,WILLIAM &	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07BD04500	OSTERGAARD,DEWARD J & VERA NANCY	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07BD04600	BENMUN DEVELOPMENT INC	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07BD06600	VANDERWEY,JOHANNES	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07BD07200	CAPPS,TOM C	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07BD07300	TOWN GROUP INC, THE	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07BD07500	TOWN GROUP INC, THE	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07BD07600	TOWN GROUP INC, THE	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07BD07700	TOWN GROUP INC, THE	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07CA02801	FLANAGAN,MICHAEL J & CAMILLE A	RM	Vac	0.1	0.1	0.0	0	0.0	0	0.1	1	0.0	0
051W07CA03800	HANRAHAN,JOHN M-ESTATE OF	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07CA07402	GARIBO,JUAN & MEDINA,MARTHA	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07CB07800	WOODBURN CHILD CARE CLINIC	RM	Vac	0.3	0.2	0.0	0	0.0	0	0.2	4	0.0	0
051W07CC04400	KISSEL,ANTHONY J	RS	Vac	1.0	0.8	0.8	5	0.0	0	0.0	0	0.0	0
051W07CC04600	KISSEL,ANTHONY J	RS	Vac	1.0	0.8	0.8	5	0.0	0	0.0	0	0.0	0
051W07CC06200	GREGORY,PHYLLIS A	RS	Vac	0.3	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07CC06600	GREGORY,PHYLLIS A	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0

Residential Vacant Taxlots – Existing UGB	OWNER_NAME	ZONING	Dev	AC	Net Build Area	LDR AC	LDR DU	Nod LDR AC	Nod LDR DU	MDR AC	MDR DU	Nod MDR AC	Nod MDR DU
051W07CC08400	CORNWELL,CHARLES B & LOU J-TRUST	RS	Vac	0.3	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07CC08900	CORNWELL,CHARLES B & LOU J-TRUST	RS	Vac	0.4	0.3	0.3	2	0.0	0	0.0	0	0.0	0
051W07CC10000	SMITH,HAZEL M-TRUSTEE	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07CC10700	EDWARDS,JOHN W &	RS	Vac	0.3	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07CC11000	SMITH,HAZEL M-TRUSTEE	RS	Vac	0.3	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07CD04000	OREGON CHILD DEVELOPMENT COALITI	RM	Vac	0.2	0.1	0.0	0	0.0	0	0.1	2	0.0	0
051W07CD04600	OREGON CHILD DEVELOPMENT COALITI	RM	Vac	0.1	0.1	0.0	0	0.0	0	0.1	1	0.0	0
051W07DB03900	NYMAN,MARK A	RM	Vac	0.7	0.6	0.0	0	0.0	0	0.6	9	0.0	0
051W07DB04300	HUNT,ALFRED A & GLORIA A	RM	Vac	0.2	0.2	0.0	0	0.0	0	0.2	2	0.0	0
051W07DC00100	CITY OF WOODBURN	P/SP	Vac	0.8	0.6	0.6	4	0.0	0	0.0	0	0.0	0
051W07DC00100	CITY OF WOODBURN	RS	Vac	0.4	0.3	0.3	1	0.0	0	0.0	0	0.0	0
051W07DD00500	CAM,NIKITA I &	RS	Vac	0.3	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W07DD02400	WOODBURN BACKHOE SERVICE INC	RS	Vac	1.6	0.8	0.8	5	0.0	0	0.0	0	0.0	0
051W07DD04900	SCOTT,RANDY T & CATHIE SUE	RS	Vac	0.4	0.3	0.3	1	0.0	0	0.0	0	0.0	0
051W07DD06900	KROPF,WALLACE L-TRUSTEE	RM	Vac	0.6	0.4	0.0	0	0.0	0	0.4	7	0.0	0
051W08CC00200	CITY OF WOODBURN	RS	Vac	0.4	0.3	0.3	2	0.0	0	0.0	0	0.0	0
051W08CC02900	KALUGIN,MIKE	RS	Vac	0.5	0.4	0.4	2	0.0	0	0.0	0	0.0	0
051W08CC05000	TRAGNI,CAROL A	RM	Vac	0.9	0.7	0.0	0	0.0	0	0.7	13	0.0	0
051W08CC05400	WOODBURN SCHOOL DISTRICT 103	RM	Vac	2.9	2.3	0.0	0	0.0	0	2.3	40	0.0	0
051W08CC05500	PENDOV,VLADIMIR	RM	Vac	0.3	0.3	0.0	0	0.0	0	0.3	4	0.0	0
051W08CC05800	GRIGORIEFF,JOHN & VERA-TRUSTEE	RM	Vac	0.6	0.5	0.0	0	0.0	0	0.5	8	0.0	0
051W08CC06100	NYMAN,MARK A	RM	Vac	0.7	0.6	0.0	0	0.0	0	0.6	10	0.0	0
051W08CC06200	MILLER,LEROY B & JOY L	RM	Vac	0.6	0.5	0.0	0	0.0	0	0.5	8	0.0	0
051W08CC06300	MILLER,LEROY B & JOY L	RM	Vac	1.1	0.9	0.0	0	0.0	0	0.9	15	0.0	0
051W08CC08200	INTERNATIONAL CHURCH OF	RM	Vac	0.4	0.3	0.0	0	0.0	0	0.3	6	0.0	0
051W08CC08600	INTERNATIONAL CHURCH OF	RM	Vac	0.3	0.3	0.0	0	0.0	0	0.3	4	0.0	0
051W08CC08700	INTERNATIONAL CHURCH OF	RM	Vac	0.3	0.2	0.0	0	0.0	0	0.2	4	0.0	0
051W08CC08800	HORSWILL,LOHREE K	RM	Vac	0.1	0.1	0.0	0	0.0	0	0.1	1	0.0	0
051W08CC09100	HORSWILL,LOHREE H	RM	Vac	1.2	1.0	0.0	0	0.0	0	1.0	16	0.0	0
051W08CD07000	LANG,GUENTER H & E R ETAL	RM	Vac	0.2	0.1	0.0	0	0.0	0	0.1	2	0.0	0
051W08CD07100	LANG,GUENTER H & E R ETAL	RM	Vac	0.2	0.2	0.0	0	0.0	0	0.2	2	0.0	0

esidential vacant Taxlots - existing UGB	OWNER_NAME	ZONING	Dev	AC	Net Build Area	LDR AC	LDR DU	Nod LDR AC	Nod LDR DU	MDR AC	MDR DU	Nod MDR AC	Nod MDR DU
051W08CD07800	BRUSVEN,AMOS O & PEBBLE I	RM	Vac	1.6	1.2	0.0	0	0.0	0	1.2	21	0.0	0
051W08CD08100	MEYER,JAMES T & ANN M	RM	Vac	0.1	0.1	0.0	0	0.0	0	0.1	1	0.0	0
051W08DA06800	ALDRIDGE FAMILY LTD	RM	Vac	0.5	0.4	0.0	0	0.0	0	0.4	7	0.0	0
051W08DA06900	ALDRIDGE FAMILY LTD	RM	Vac	0.3	0.2	0.0	0	0.0	0	0.2	3	0.0	0
051W08DA07000	ALDRIDGE FAMILY LTD	RM	Vac	0.3	0.2	0.0	0	0.0	0	0.2	3	0.0	0
051W08DA07100	ALDRIDGE FAMILY LTD	RM	Vac	0.3	0.2	0.0	0	0.0	0	0.2	3	0.0	0
051W08DA07200	ALDRIDGE FAMILY LTD	RM	Vac	0.3	0.2	0.0	0	0.0	0	0.2	3	0.0	0
051W08DA07600	MENDONCA,STEVE &	RM	Vac	0.1	0.1	0.0	0	0.0	0	0.1	1	0.0	0
051W08DA08000	JENNINGS,JERRY M &	RM	Vac	7.1	5.6	0.0	0	0.0	0	5.6	98	0.0	0
051W08DC01700	JAEGER,CATHERINE M-TR	RM	Vac	0.2	0.2	0.0	0	0.0	0	0.2	2	0.0	0
051W08DC04900		RS	Vac	0.3	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W08DC05803	SAMOILOV,MIKE	RS	Vac	0.4	0.3	0.3	1	0.0	0	0.0	0	0.0	0
051W08DC06101	QUALITY PLUS INTERIORS INC	RS	Vac	0.9	0.7	0.7	4	0.0	0	0.0	0	0.0	0
051W08DD04300	FIRST REFORMED CHRISTIAN	RS	Vac	3.6	2.9	2.8	19	0.0	0	0.0	0	0.0	0
051W17AB00500	KAHUT,EDWARD E & SHIRLEY J	NONE	Vac	6.7	5.3	5.3	36	0.0	0	0.0	0	0.0	0
051W17AB00601	OVCHINNIKOV,YAKOV-TRUSTEE	NONE	Vac	0.3	0.3	0.3	1	0.0	0	0.0	0	0.0	0
051W17AB00602	OVCHINNIKOV,YAKOV-TRUSTEE	NONE	Vac	2.4	1.9	1.9	12	0.0	0	0.0	0	0.0	0
051W17AB01000	HENDERSHOTT,DELBERT & BEVERLY	NONE	Vac	0.3	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W17BA00800	BRUSVEN,AMOS O & PEBBLE I	RM	Vac	0.9	0.7	0.0	0	0.0	0	0.7	12	0.0	0
051W17BA00900	KAUP,CHARLES &	RM	Vac	2.6	2.1	0.0	0	0.0	0	2.1	36	0.0	0
051W17BB03300	YODER,BESSIE	RS	Vac	0.3	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W17BB06600	LIM,MU GUN & PHIL LIM	RS	Vac	0.3	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W17BB07300	HILDEBRAND,ALLAN D & NAOMI J	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W17BD00400	KUZMIN,VASILY V & EVDOKIA	RS	Vac	0.4	0.3	0.3	2	0.0	0	0.0	0	0.0	0
051W17BD01700	TORAN,WES	RS	Vac	0.6	0.5	0.5	3	0.0	0	0.0	0	0.0	0
051W17BD02400	SCHIEL,RICHARD A & DEBRA A	RS	Vac	0.5	0.4	0.4	2	0.0	0	0.0	0	0.0	0
051W17BD07700	PORTLAND GENERAL ELECTRIC CO	RS	Vac	3.5	2.8	2.8	19	0.0	0	0.0	0	0.0	0
051W18AA01600	MONNIER,HARRIETT E & WAYNE H	RS	Vac	0.5	0.4	0.4	2	0.0	0	0.0	0	0.0	0
051W18AA02500	LENHARDT,FLOYD	RS	Vac	4.2	0.7	0.5	3	0.0	0	0.1	2	0.0	0
051W18AA03000	LENHARDT,FLOYD R JR & GLADYS R	RS	Vac	2.2	0.4	0.4	2	0.0	0	0.0	0	0.0	0
051W18AA03300	LENHARDT,FLOYD R JR &	RS	Vac	3.1	1.0	1.0	6	0.0	0	0.0	0	0.0	0

Residential Vacant Taxlots - Existing UGB	OWNER_NAME	ZONING	Dev	AC	Net Build Area	LDR AC	LDR DU	Nod LDR AC	Nod LDR DU	MDR AC	MDR DU	Nod MDR AC	Nod MDR DU
051W18AA03301	LENHARDT,FLOYD R JR &	RS	Vac	0.4	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W18AA03800	BIBLE BAPTIST CHURCH	RS	Vac	1.6	0.4	0.3	1	0.0	0	0.0	0	0.0	0
051W18AA04400	CITY OF WOODBURN	RS	Vac	0.3	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W18AA04500	CITY OF WOODBURN	RS	Vac	0.4	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W18AA05800	LENHARDT,FLOYD R JR & GLADYS R	RS	Vac	1.3	0.9	0.8	5	0.0	0	0.0	0	0.0	0
051W18AB10100	CHERNISHOV,JOHN F & PANA	RS	Vac	0.3	0.3	0.3	1	0.0	0	0.0	0	0.0	0
051W18AC00300	BARUKOFF,TIM & KUZMA	RM	Vac	0.6	0.1	0.0	0	0.0	0	0.1	2	0.0	0
051W18AC02203	HICKS,JASON A	RS	Vac	0.8	0.6	0.6	4	0.0	0	0.0	0	0.0	0
051W18AD03900	BURT,RICHARD E & BARBARA J	RS	Vac	0.2	0.2	0.0	0	0.0	0	0.2	2	0.0	0
051W18BA07300	HEMESHORN,EVERETT	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W18BA11100	HEMESHORN,EVERETT	RS	Vac	0.3	0.3	0.3	1	0.0	0	0.0	0	0.0	0
051W18BC00400	PAUL A ASPER REV LIV TR	RS	Vac	0.5	0.4	0.4	2	0.0	0	0.0	0	0.0	0
051W18BC04000	SMITH,HAZEL M-TRUSTEE	NONE	Vac	6.9	5.0	5.4	36	0.0	0	0.0	0	0.0	0
051W18BC04000	SMITH,HAZEL M-TRUSTEE	RS	Vac	2.1	1.2	5.4	36	0.0	0	0.0	0	0.0	0
051W18BC04200	RUGGLES,GARY D & LINDA L	RS	Vac	1.5	0.4	0.4	2	0.0	0	0.0	0	0.0	0
051W18BC08900	WADSWORTH,THOMAS & KATHERINE-TR	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W18BD00100	CITY OF WOODBURN	P/SP	Vac	2.9	0.9	0.9	6	0.0	0	0.0	0	0.0	0
051W18BD02700	UNION PACIFIC RAILROAD CO	RS	Vac	0.4	0.3	0.3	1	0.0	0	0.0	0	0.0	0
051W18BD02800	UNION PACIFIC RAILROAD CO	RS	Vac	0.5	0.4	0.4	2	0.0	0	0.0	0	0.0	0
051W18BD05300	CHAUDHARY,ELOISA	RS	Vac	1.0	0.8	0.8	5	0.0	0	0.0	0	0.0	0
051W18BD06600	GARCIA,HIPOLITO & MARTA	RS	Vac	0.9	0.7	0.7	5	0.0	0	0.0	0	0.0	0
051W18BD07401	GLADKIY,MIKHAIL & RAISIA	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W18BD08200	GLADKY,MICHAIL	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W18BD08401	KEPTYA,IVAN &	RS	Vac	0.3	0.3	0.3	1	0.0	0	0.0	0	0.0	0
051W18BD08600	SAVERCHENKO,PAVEL	RS	Vac	1.0	0.8	0.8	5	0.0	0	0.0	0	0.0	0
051W18C 00300	ZELINKA,IGNICE H & ROSE MARIE	NONE	Vac	0.9	0.8	0.8	5	0.0	0	0.0	0	0.0	0
051W18C 00500	TEUBNER,BIRGIT ET AL	NONE	Vac	6.0	4.8	4.8	33	0.0	0	0.0	0	0.0	0
051W18C 01100	ZIMMER,FAYE E & BOCCHI,NANCY K	RS	Vac	5.2	4.1	4.1	28	0.0	0	0.0	0	0.0	0
051W18C 01400	ZIMMER,FAYE E & BOCCHI,NANCY K	RS	Vac	54.3	42.8	42.8	294	0.0	0	0.0	0	0.0	0
051W18CA03100	ROGERS,WILLIAM H &	RS	Vac	0.4	0.3	0.3	2	0.0	0	0.0	0	0.0	0
051W18CA07000	CAM,NAZARI	RS	Vac	2.0	1.6	1.6	11	0.0	0	0.0	0	0.0	0

Residential Taxlots - UBG	OWNER_NAME	ZONING	Dev	AC	Net Build Area	LDR AC	LDR DU	Nod LDR AC	Nod LDR DU	MDR AC	MDR DU	Nod MDR AC	Nod MDR DU
W18CA07200	SAMOILOV,MIKE	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
W18CA07201	SAMOILOV,MIKE	RS	Vac	0.3	0.3	0.3	1	0.0	0	0.0	0	0.0	0
W18CA07202	SAMOILOV,MIKE	RS	Vac	0.3	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W18CA07203	SAMOILOV,MIKE	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W18CA18600	SPRINGER ESTATES LLC	RS	Vac	0.8	0.6	0.6	4	0.0	0	0.0	0	0.0	0
051W18CB01100	HOPE LUTHERAN CHURCH OF WOODBURN	RS	Vac	0.6	0.5	0.5	3	0.0	0	0.0	0	0.0	0
051W18CB07400	CITY OF WOODBURN	RS	Vac	0.3	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W18CB07800	GONZALEZ,JOSE H	RS	Vac	0.8	0.6	0.6	4	0.0	0	0.0	0	0.0	0
051W18CB08600	OLSON,BERNARD L & VIVIAN N	RS	Vac	1.4	1.1	1.1	7	0.0	0	0.0	0	0.0	0
051W18CB08600	OLSON,BERNARD L & VIVIAN N	NONE	Vac	1.0	0.8	0.8	5	0.0	0	0.0	0	0.0	0
051W18D 00100	CAM,ELENA	RM	Vac	15.4	12.3	0.0	0	0.0	0	12.3	215	0.0	0
051W18DA06400	PAGE,JOHN G &	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W18DC02400	FOSTER,LELAND & KAREN M	RS	Vac	0.2	0.2	0.2	1	0.0	0	0.0	0	0.0	0
051W18DC04100	CITY OF WOODBURN	RS	Vac	4.0	0.3	0.2	1	0.0	0	0.1	2	0.0	0
051W19A 02200	SHALIMAR LLC	RM	Vac	2.4	1.1	0.0	0	0.0	0	1.1	19	0.0	0
051W19B 00100	SHALIMAR LLC	RS	Vac	4.9	2.1	2.1	14	0.0	0	0.0	0	0.0	0
051W19B 00200	FORBES,DON	NONE	Vac	7.2	5.5	5.5	37	0.0	0	0.0	0	0.0	0
051W19B 00301	STAHLBERG,GORDON L & A MARIE	NONE	Vac	1.0	0.8	0.8	5	0.0	0	0.0	0	0.0	0
051W19B 00600	SCHWENKE,GREG I & VEZEY,NANCY R	NONE	Vac	31.4	25.1	25.1	172	0.0	0	0.0	0	0.0	0
051W19B 00700	SCHWENKE,GREG I & VEZEY,NANCY R	NONE	Vac	0.7	0.6	0.6	3	0.0	0	0.0	0	0.0	0
051W19B 00800	SCHWENKE,GREG I & VEZEY,NANCY R	NONE	Vac	0.9	0.7	0.7	4	0.0	0	0.0	0	0.0	0
052W12B 00100	STAMPLEY,RAY JR & CECILIA M	NONE	Vac	13.9	5.9	0.0	0	0.0	0	5.9	102	0.0	0
052W13 00100	SMITH,HAZEL M-TRUSTEE	NONE	Vac	141.5	104.6	0.0	0	104.6	1046	0.0	0	0.0	0
052W13 00300	HOBSON,STEPHEN J & SHARON M	NONE	Vac	14.1	7.4	0.0	0	7.4	73	0.0	0	0.0	0
052W13 00800	LOWRIE,CLYDE H & MARJORIE-TRUST	NONE	Vac	24.4	19.6	0.0	0	19.6	195	0.0	0	0.0	0
052W13 01200	BURLINGHAM FARMS INC	NONE	Vac	15.1	11.7	11.7	80	0.0	0	0.0	0	0.0	0
052W13BD00300	WILLIAM H HOLT REVOCABLE TRUST 1	NONE	Vac	4.5	0.2	0.0	0	0.2	1	0.0	0	0.0	0
052W13BD00400	BUSURKIN,WARSANOFI	NONE	Vac	8.5	6.2	0.0	0	6.2	61	0.0	0	0.0	0
052W13BD00500	BEAVER,LENORA	NONE	Vac	1.1	0.8	0.0	0	0.8	8	0.0	0	0.0	0
052W14 00100	PIONEER TRUST COMPANY	RS	Vac	19.6	15.7	0.0	0	0.0	0	0.0	0	15.7	352
052W14 00100	PIONEER TRUST COMPANY	RM	Vac	7.5	6.0	0.0	0	0.0	0	0.0	0	6.0	134

Table 12: Infill Residential Taxlots – Existing UGB

Residential Infill Taxlots – Existing UGB	OWNER_NAME	ZONING	Dev	AC	Net Build Area	LDR AC	LDR DU	Nod LDR AC	Nod LDR DU	MDR AC	MDR DU	Nod MDR AC	Nod MDR DU
051W07CB08400	SANDOVAL,GEORGE	RS	Infill	1.0	0.7	0.8	5	0.0	0	0.0	0	0.0	0
051W07CB08500	KISSEL,ANTHONY J	RS	Infill	2.1	1.5	1.6	11	0.0	0	0.0	0	0.0	0
051W07CB08600	SHEVCHENKO,BENJAMIN A & ZINA K	RS	Infill	1.0	0.7	0.8	5	0.0	0	0.0	0	0.0	0
051W07CC08200	TIBBETTS,CECIL W & SANDRA S	RS	Infill	0.8	0.4	0.6	4	0.0	0	0.0	0	0.0	0
051W07DB01100	BLOMENKAMP,BRUCE W & LORRAINE M	RS	Infill	0.8	0.5	0.7	4	0.0	0	0.0	0	0.0	0
051W07DD00701	REICHARDT,DONALD J &	RS	Infill	0.7	0.1	0.3	2	0.0	0	0.0	0	0.0	0
051W08CC04500	CAM,ELENA	RS	Infill	0.7	0.4	0.6	3	0.0	0	0.0	0	0.0	0
051W08CC04700	SMITH,JAMES C & MARTHA B	RS	Infill	0.5	0.2	0.4	2	0.0	0	0.0	0	0.0	0
051W08CD05100	SAMARIN,MIKE & TANIA ET AL	RS	Infill	1.1	0.7	0.9	6	0.0	0	0.0	0	0.0	0
051W08CD05200	HARVEY,ERMA M	RS	Infill	0.6	0.3	0.5	3	0.0	0	0.0	0	0.0	0
051W18AA00700	ZOLNIKOV,IVAN & ANA USOLTSEFF	RS	Infill	0.7	0.1	0.2	1	0.0	0	0.0	0	0.0	0
051W18AA01400	MONNIER,HARRIETT E & WAYNE H	RS	Infill	0.8	0.5	0.6	4	0.0	0	0.0	0	0.0	0
051W18AA01500	SANFTLEBEN,MERRIDEL PENNI	RS	Infill	0.5	0.2	0.4	2	0.0	0	0.0	0	0.0	0
051W18AA03001	LENHARDT,FLOYD R JR & GLADYS R	RS	Infill	0.8	0.4	0.5	3	0.0	0	0.0	0	0.0	0
051W18AA04600	BLEM,JERRY A	RS	Infill	0.5	0.3	0.4	2	0.0	0	0.0	0	0.0	0
051W18AA05500	MID-VALLEY COMMUNITY	RS	Infill	1.0	0.2	0.4	2	0.0	0	0.0	0	0.0	0
051W18AA06200	CORTES,BONIFACIO & MARIA M ASCENC	RS	Infill	1.0	0.6	0.8	5	0.0	0	0.0	0	0.0	0
051W18AA06300	DOMAN,EARL A & DONNA R	RS	Infill	1.0	0.6	0.8	5	0.0	0	0.0	0	0.0	0
051W18AA06900	NISBET,G WAYNE &	RS	Infill	0.8	0.5	0.6	4	0.0	0	0.0	0	0.0	0
051W18AB10000	USOLTSEFF,ANDRON & KALMOGOROFF,V	RS	Infill	0.7	0.3	0.4	3	0.0	0	0.0	0	0.0	0
051W18AB10300	MACFARLANE,DONALD D	RS	Infill	0.6	0.2	0.3	2	0.0	0	0.0	0	0.0	0
051W18AC02200	PEREZ,RUBEN V &	RS	Infill	0.8	0.3	0.5	3	0.0	0	0.0	0	0.0	0
051W18AC02202	DYSINGER,CHARLES A &	RS	Infill	0.6	0.1	0.3	1	0.0	0	0.0	0	0.0	0
051W18AD04500	DOMAN,EARL A & DONNA R	RM	Infill	0.7	0.4	0.0	0	0.0	0	0.4	7	0.0	0
051W18AD05300	ROSELA,CHARLES J & DEBORAH A	RM	Infill	0.7	0.4	0.0	0	0.0	0	0.4	7	0.0	0
051W18BB00500	BOWMAN,HOMER N & NANCY-TRUSTEES	RS	Infill	1.3	0.8	1.0	6	0.0	0	0.0	0	0.0	0
051W18BB00600	GALINNIS,WILLIAM J & LORNA J	RS	Infill	0.6	0.3	0.5	3	0.0	0	0.0	0	0.0	0

Residential Infill Taxlots – Existing UGB	OWNER_NAME	ZONING	Dev	AC	Net Build Area	LDR AC	LDR DU	Nod LDR AC	Nod LDR DU	MDR AC	MDR DU	Nod MDR AC	Nod MDR DU
051W18BB11000	BERGERSON, TERRY R &	RS	Infill	0.5	0.2	0.4	2	0.0	0	0.0	0	0.0	0
051W18BC04500	RUGGLES, GARY D & LINDA L	RS	Infill	0.6	0.2	0.4	2	0.0	0	0.0	0	0.0	0
051W18BC04600	HENDERSON, GERALD D & CARTHIA D	RS	Infill	2.3	1.1	1.2	8	0.0	0	0.0	0	0.0	0
051W18BD02600	RODRIGUEZ, JOSE LUIS & OCTAVIA	RS	Infill	0.9	0.4	0.6	3	0.0	0	0.0	0	0.0	0
051W18BD02900	STATE OF OREGON-DVA	RS	Infill	2.6	0.6	0.7	4	0.0	0	0.0	0	0.0	0
051W18BD03000	QUINTERO, JOSEFA Y	RS	Infill	1.4	0.8	1.0	6	0.0	0	0.0	0	0.0	0
051W18BD05200	OREGON SYNOD OF THE EVANGELICAL	RS	Infill	0.8	0.5	0.6	4	0.0	0	0.0	0	0.0	0
051W18BD06800	HENKES, KAREN JO ET AL	RS	Infill	0.6	0.3	0.5	3	0.0	0	0.0	0	0.0	0
051W18C 00200	WORKMAN, KAY L & CAROLYN M	RS	Infill	1.2	0.8	1.0	6	0.0	0	0.0	0	0.0	0
051W18CA00100	KUZMIN, KSENIA-ESTATE	RS	Infill	0.8	0.5	0.7	4	0.0	0	0.0	0	0.0	0
051W18CA03200	SONNEN, RUDY H & PAULETTE R	RS	Infill	2.8	2.0	2.2	15	0.0	0	0.0	0	0.0	0
051W18CA03800	VALDEZ, BENITO V & BENITA A	RS	Infill	0.5	0.3	0.4	2	0.0	0	0.0	0	0.0	0
051W18CA03900	YBANEZ, ABEL	RS	Infill	0.5	0.3	0.4	2	0.0	0	0.0	0	0.0	0
051W18CA07500	HOUSE OF ZION MINISTRIES INC	RS	Infill	0.8	0.5	0.6	4	0.0	0	0.0	0	0.0	0
051W18CB00300	KEMMERICK, MARY-ETAL	RS	Infill	0.5	0.3	0.4	2	0.0	0	0.0	0	0.0	0
051W18CB08200	KISHPAUGH, VIVIAN M	RS	Infill	0.5	0.2	0.4	2	0.0	0	0.0	0	0.0	0
051W18DA02400	VANDEHEY, EDGAR J & PATRICIA-TRUST	RS	Infill	0.5	0.3	0.1	0	0.0	0	0.1	2	0.0	0
051W18DA03900	MIDURA, ROGER	RS	Infill	0.8	0.5	0.6	4	0.0	0	0.0	0	0.0	0
051W18DA09300	DENTAL, GARY L	RS	Infill	0.5	0.3	0.3	2	0.0	0	0.0	0	0.0	0
051W18DB04600	BAKER, BRICE B &	RS	Infill	1.9	1.3	1.5	10	0.0	0	0.0	0	0.0	0
051W18DB05402	OREGON REHABILITATION HOUSING AS	RS	Infill	0.7	0.4	0.6	4	0.0	0	0.0	0	0.0	0
051W18DB11800	VREDENBURG, HENRY EDWARD & LYNDA	RS	Infill	0.5	0.0	0.2	1	0.0	0	0.0	0	0.0	0
052W12DA02000	HEIDT, EUGENE N	RM	Infill	1.8	1.2	1.4	9	0.0	0	0.0	0	0.0	0
052W12DA03800	MENDENHALL, DAVID L ET AL	RS	Infill	2.0	1.5	1.6	11	0.0	0	0.0	0	0.0	0
052W13 00400	MONNIER, RONALD A & DEBRA S	RS	Infill	1.1	0.7	0.8	5	0.0	0	0.0	0	0.0	0

Table 13: Partially Vacant Residential Taxlots – Existing UGB

Residential Partially Vacant Taxlots – Existing UGB	OWNER_NAME	ZONING	Dev	AC	Net Build Area	LDR AC	LDR DU	Nod LDR AC	Nod LDR DU	MDR AC	MDR DU	Nod MDR AC	Nod MDR DU
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Residential Partially Vacant Taxlots – Existing UGB	OWNER_NAME	ZONING	Dev	AC	Net Build Area	LDR AC	LDR DU	Nod LDR AC	Nod LDR DU	MDR AC	MDR DU	Nod MDR AC	Nod MDR DU
052W13 00200	PIONEER TRUST COMPANY	RM	Pvac	19.7	10.3	0.0	0	0.0	0	11.1	194	0.0	0
052W12B 00300	SPRAGUE,BENNIE	NONE	Pvac	19.9	10.9	0.0	0	0.0	0	10.9	191	0.0	0
052W13 00200	PIONEER TRUST COMPANY	RS	Pvac	35.7	14.2	0.0	0	14.2	141	0.0	0	0.0	0
051W19A 02600	FLECK,HAROLD J (LE) &	NONE	Pvac	4.9	3.5	0.0	0	0.0	0	3.5	61	0.0	0
051W19A 02100	PISCITELLI,VINCENZO & ROSALBA	NONE	Pvac	4.6	2.9	0.0	0	0.0	0	2.9	50	0.0	0
051W08CA00100	CHURCH OF GOD WOODBURN	RS	Pvac	3.9	1.1	3.1	21	0.0	0	0.0	0	0.0	0

Table 14: Residential Taxlots – Expansion UGB

Residential Taxlots – Expansion UGB	TAZ	SUB AREA	Acres	Developed	LDR AC	LDR DU	Nod LDR AC	Nod LDR DU	MDR AC	MDR DU	Nod MDR AC	Nod MDR DU
051W06C 00100	106	2	29.97	Vacant	23	158	0	0	0	0	0	0
051W06C 00200	106	2	29.93	Vacant	23	161	0	0	0	0	0	0
051W06C 00300	106	2	32.62	Vacant	25	175	0	0	0	0	0	0
051W06C 00400	106	2	14.00	Vacant	11	77	0	0	0	0	0	0
051W06C 00800	106	2	17.13	Vacant	14	94	0	0	0	0	0	0
051W06C 00900	106	2	1.12	Part Vacant	1	5	0	0	0	0	0	0
051W06C 01000	106	2	1.00	Part Vacant	1	4	0	0	0	0	0	0
051W06D 00300	121	2	10.00	Vacant	8	53	0	0	0	0	0	0
051W06D 00400	106	2	27.52	Vacant	22	149	0	0	0	0	0	0
051W06D 00501	121	2	43.72	Vacant	9	59	0	0	0	0	0	0
051W06DC00100	121	2	1.63	Part Vacant	1	7	0	0	0	0	0	0
051W06DC00200	121	2	0.43	Vacant	0	2	0	0	0	0	0	0
052W13 01000	201	7	41.75	Vacant	0	0	17	167	0	0	18	399
052W13 01200	201	7	74.65	Vacant	0	0	51	507	0	0	10	213
052W13BD00400	187	7	8.69	Vacant	0	0	0	0	0	0	7	162
052W13BD00600	187	7	3.00	Part Vacant	0	0	0	0	0	0	2	53
052W13BD00700	187	7	8.74	Vacant	0	0	0	0	0	0	7	163
052W13BD00800	187	7	2.20	Part Vacant	0	0	0	0	0	0	2	38
052W13BD00900	187	7	9.03	Vacant	0	0	0	0	0	0	2	50
052W13BD01100	187	7	1.00	Part Vacant	0	0	0	0	0	0	1	15

052W13BD01200	187	7	1.00	Part Vacant	0	0	0	0	0	0	1	15
052W13BD01400	187	7	0.89	Vacant	0	0	0	0	0	0	1	17

Table 15: Buildable Exception Area Parcels

TAXLOT	TAZ	SUB_AREA	Acres	Dev Status	ExceptArea	ExcSF	ExcSFDU
052W02D 00100	101		2.73	Part Vacant	Y	3	7
052W02D 00200	101		2.26	Part Vacant	Y	2	6
052W02D 00300	101		0.41	Vacant	Y	0	1
052W02D 00400	101		1.94	Part Vacant	Y	2	5
052W02D 00601	101		1.35	Vacant	Y	1	4
052W02D 00602	101		1.45	Part Vacant	Y	1	3
052W02D 00603	101		1.16	Part Vacant	Y	1	2
052W02D 00604	101		1.40	Part Vacant	Y	1	3
052W02D 00605	101		1.43	Part Vacant	Y	1	3
052W02D 00606	101		1.06	Vacant	Y	1	3
052W02D 00607	101		1.54	Part Vacant	Y	1	4
052W02D 00700	100		2.91	Part Vacant	Y	3	8
052W02D 00800	100		2.91	Part Vacant	Y	3	8
052W02D 00900	100		2.91	Part Vacant	Y	3	8
052W02D 01000	100		1.41	Part Vacant	Y	1	3
052W02D 01200	100		1.81	Part Vacant	Y	2	4
052W02D 01201	100		1.98	Part Vacant	Y	2	5
052W02D 01202	100		1.39	Part Vacant	Y	1	3
052W02D 01300	100		3.16	Part Vacant	Y	3	8
052W02D 01301	100		1.80	Part Vacant	Y	2	4
052W02D 01400	100		3.10	Part Vacant	Y	3	8
052W02D 01700	100		3.48	Part Vacant	Y	3	9
052W02D 01800	100		2.48	Part Vacant	Y	2	6
052W02D 01900	100		2.48	Part Vacant	Y	2	6
052W02D 02000	100		4.62	Part Vacant	Y	4	13
052W02D 02100	100		3.93	Part Vacant	Y	4	11
052W02D 02200	100		3.91	Part Vacant	Y	4	11
052W02D 03600	100		1.27	Part Vacant	Y	1	3
052W02D 03700	100		1.23	Part Vacant	Y	1	3

TAXLOT	TAZ	SUB_AREA	Acres	Dev Status	ExceptArea	ExcSF	ExcSFDU
052W02D 03800	100		1.36	Vacant	Y	1	4
052W02D 03900	100		1.35	Vacant	Y	1	4
052W11AA00200	101		1.67	Part Vacant	Y	1	4
052W11AA00300	101		1.54	Part Vacant	Y	1	4
052W11AA00400	101		1.47	Vacant	Y	1	4
052W11AA00500	101		1.70	Part Vacant	Y	2	4
052W11AA00600	101		1.79	Part Vacant	Y	2	4
052W11AA00700	101		1.78	Part Vacant	Y	2	4
052W11AA00800	101		8.00	Vacant	Y	8	23
052W11AB00100	100		2.91	Part Vacant	Y	3	8
052W11AB00200	100		2.91	Part Vacant	Y	3	8
052W11AB00400	100		9.08	Vacant	Y	9	26
052W11AB00600	100		1.29	Vacant	Y	1	3
052W11AB01200	100		1.04	Vacant	Y	1	3
052W11AB01299	100		1.23	Vacant	Y	1	3
052W11AB01300	100		0.95	Vacant	Y	1	2
052W11AB01400	100		1.57	Part Vacant	Y	1	4
052W11AB02200	101		1.94	Part Vacant	Y	2	5
052W11AB02301	101		0.79	Vacant	Y	1	2
052W11AB02600	101		1.65	Part Vacant	Y	1	4
052W11AC00100	101		3.00	Part Vacant	Y	3	8

Table 16: Industrial Vacant – Existing UGB

TAXLOT	OWNER_NAME	ACRES	Dev	IND Net Ac
051W05C 01100	MARY CO - A PARTNERSHIP	8.77	Vac	7.45
051W05D 01000	HANAUSKA, VICTOR J	13.32	Vac	11.32
051W07DA00100	DON BURLINGHAM FAMILY CORP	6.04	Vac	5.13
051W07DD00900	CITY OF WOODBURN	0.19	Vac	0.10
051W07DD01800	MIKE CAMPBELL DEVELOPMENT INC	0.32	Vac	0.20
051W08B 01500	MERCER INDUSTRIES INC	2.53	Vac	2.15

051W08BC00500	MERCER INDUSTRIES INC	3.03	Vac	2.58
051W17C 00900	CAM,IVAN &	6.26	Vac	5.32
051W18AB11100	WILLAMETTE VALLEY LAW PROJECT	0.12	Vac	0.10
051W18AB11500	CITY OF WOODBURN	0.09	Vac	0.08
051W18AB11800	ENGLEMAN,TODD	0.26	Vac	0.22
051W18AB12300	CITY OF WOODBURN	0.22	Vac	0.19
051W18AB12400	CITY OF WOODBURN	0.22	Vac	0.19
051W18AB13000	UNION PACIFIC RAILROAD CO	0.11	Vac	0.09
051W18AB13200	CITY OF WOODBURN	0.09	Vac	0.08
052W11 00100	WINCO FOODS INC	19.13	Vac	16.26
052W11 00105	HILLYER,LEO M & REYNE M	0.42	Vac	0.36

Table 17: Industrial Vacant – Proposed Expansion

TAXLOT	TAZ	SUB_AREA	DEV	SWIR AC
052W23 00100	202	7	Vacant	46.2
052W14 01600	202	7	Vacant	22.6
052W14 01500	202	7	Vacant	54.8
052W14 01100	187	7	Vacant	18.5
052W14 01000	187	7	Vacant	8.5
052W14 00900	187	7	Vacant	36.4
052W14 00800	187	7	Vacant	42.5
052W14 00600	159	8	Vacant	13.5
052W14 00200	159	8	Vacant	8.8
052W13 01100	201	7	Vacant	19.0
052W11 00300	159	8	Vacant	88.2

Table 18: Commercial Vacant – Existing UGB

TAXLOT	OWNER_NAME	ACRES	ZONING	Dev	COM Net Ac	Com Emp
051W07DC03400	SAUVAIN,C CHARLES	0.08	DDC	Vac	0.07	1
051W07DC09500	SAUVAIN,C CHARLES	0.11	DDC	Vac	0.10	1
051W07DC09800	EAGLE NEWSPAPERS INC	0.12	DDC	Vac	0.11	2
051W08A 04400	LENHARDT,FLOYD R JR & GLADYS R	2.48	NONE	Vac	2.23	44

051W08B 02600	WWDM LTD	3.16	CG	Vac	2.84	56
051W08CD05900	WILHELM,GEORGE	0.78	CG	Vac	0.70	14
051W08DA00400	M & T PARTNERS,INC	3.32	CO	Vac	2.99	59
051W08DB01001	TAYLOR,CHRIS S & DONNA M	0.22	CG	Vac	0.20	3
051W08DB02100		0.48	CG	Vac	0.43	8
051W08DB02600	SHELBY,CHRISTOPHER W	1.80	CG	Vac	1.62	32
051W08DB02800	SALEM HOSPITAL	3.39	CG	Vac	3.05	61
051W08DC00100	SALEM HOSPITAL	3.38	CG	Vac	3.04	60
051W09B 01000	JESKE,JAMES A ET AL	0.32	NONE	Vac	0.29	5
051W17BA00300	ROTH I G A FOODLINER INC	0.46	CG	Vac	0.41	8
051W17BA00503	SHANAH,AYESH O	0.09	CG	Vac	0.08	1
051W17BC00900	SIMMONS,RONALD M & MURIEL	0.32	CG	Vac	0.29	5
051W17BC01100	CASEMY,DUANE &	0.30	CG	Vac	0.27	5
051W17BC02801	GROJACQUES,LAWRENCE R ETAL	0.15	CG	Vac	0.14	2
051W17BC06600	BERRYMAN,F CLARKE TRUST &	0.09	CG	Vac	0.08	1
051W17BC07500	LONG BROTHERS INVESTMENTS	1.45	CG	Vac	1.31	26
051W18AB02200	VERBIN,KONSTANTIN & MARIA	0.09	DDC	Vac	0.08	1
051W18AB02800	KIM,SOK HWAN & AMY AE KYUNG	0.06	DDC	Vac	0.05	1
051W18AB08000	WITHERS,ROBERT L	0.09	CG	Vac	0.08	1
051W18AD08400	EQUALL,IDA M ET AL TRUSTEES	0.64	CG	Vac	0.58	11
051W18BA03900	GUTZLER,J WALLACE &	0.12	CO	Vac	0.11	2
051W18BA09700	PETERSON,DENNIS C & MARLYS I	0.11	DDC	Vac	0.10	1
051W18BA10200	CITY OF WOODBURN	0.12	DDC	Vac	0.11	2
051W18BA11400	BENSON,PAUL M & JUDITH L	0.06	RS	Vac	0.05	1
051W18BA12000	MCNULTY,JOHN L & LORENA M	0.12	DDC	Vac	0.11	2
051W18BA12200	FARMWORKER HOUSING DEVELOPMENT	0.36	DDC	Vac	0.32	6
051W18BA12500	CITY OF WOODBURN	0.15	DDC	Vac	0.14	2
052W12AC04100	CLEMENTS,DARCY &	0.17	CG	Vac	0.15	3
052W12AC04301	JENSEN,ROBERT A &	2.43	CG	Vac	2.19	43
052W12AC05100	JENSEN,ROBERT A & SHIRLEY Y	0.37	CG	Vac	0.33	6
052W12AC05203	PLAZA LLC	0.08	CG	Vac	0.07	1
052W12B 00600	MOORE CLEAR CO	2.23	CG	Vac	1.67	33
052W12B 01101	BAKER,DALE W	0.77	CG	Vac	0.66	13
052W12C 00200	PIONEER TRUST CO	0.42	CG	Vac	0.38	7

052W12C 00602	WHITCOMB FAMILY LLC	0.62	CG	Vac	0.56	11
052W12C 00604	HERSHBERGER, WARDE ET AL	1.24	CG	Vac	1.12	22
052W12C 00605	C T F DEVELOPMENT	2.77	CG	Vac	2.49	49
052W12C 01202	BARCLAY SQUARE ASSOCIATES	0.09	CG	Vac	0.08	1
052W12C 01203	KIRIAN ENTERPRISES LLC	0.37	CG	Vac	0.33	6
052W12DA01600	PETERSON, P L	1.03	CO	Vac	0.93	18
052W12DA03200	WOODBURN INVESTMENT ASSOCIATES	1.04	RM	Vac	0.94	18
052W12DA03600	BROWN, TIMOTHY R	1.09	RS	Vac	0.98	19
052W12DA03700	BROWN, TIMOTHY R	0.20	RS	Vac	0.18	3
052W14 00100	PIONEER TRUST COMPANY	21.05	CG	Vac	18.95	378

Table 19: Commercial Vacant – Proposed Expansion

TAXLOT	TAZ	SUB_AREA	DEV	Com Ac
051W19A 02000	197	6	Vacant	9.7
052W13BD00900	187	7	Vacant	5.6
051W19A 01800	197	6	Vacant	4.5
051W06D 00801	121	2	Vacant	2.2
051W19A 01600	197	6	Vacant	0.7

Table 20: Industrial Partially Vacant – Existing UGB

TAXLOT	ACRES	OWNER_NAME	Dev	IND Net Ac
051W05C 01000	13.60	KER CONTRACTORS INC	Pvac	5.54
051W05D 01800	7.05	FAR WEST FIR SALES COMPANY	Pvac	3.61
051W05D 03500	30.09	FLEETWOOD HOMES OF OREGON INC	Pvac	4.54
051W08A 02300	10.49	CREDO TOOL CO	Pvac	5.52
051W08B 00400	18.20	PELTIER REAL ESTATE CO	Pvac	7.03
051W17C 00700	92.59	COBANK ACB	Pvac	19.20
051W19A 00300	9.60	CAM, PIRFIL G	Pvac	4.76
052W11 00101	28.18	HARDWARE WHOLESALERS INC	Pvac	6.95

Table 21: Industrial Partially Vacant – Proposed Expansion

TAZ	SUB_AREA	TAXLOT	DEV	SWIR
187		7052W14 01200	Part Vacant	4.0

Table 22: Commercial Partially Vacant – Existing UGB

TAXLOT	OWNER_NAME	ACRES	ZONING	Dev	COM Net Ac
052W13 00200	PIONEER TRUST COMPANY	45.75	CG	Pvac	31.01
051W08A 05200	OLSON,ELROY A ET AL	9.51	NONE	Pvac	8.11
051W09B 00900	SEMERIKOV,IVAN & ELENA	8.91	NONE	Pvac	7.57
051W09B 00700	AB VALLEY PROPERTIES LLC	8.85	NONE	Pvac	3.47
051W17BC06800	EQUALL MANAGEMENT LLC	2.69	CG	Pvac	1.70

Table 23: Commercial Partially Vacant – Proposed Expansion

TAXLOT	TAZ	SUB_AREA	DEV	Com Ac
051W19A 01700	197	6	Part Vacant	3.0
051W19A 01300	197	6	Part Vacant	0.9
051W19A 01400	197	6	Part Vacant	0.7
051W19A 01500	197	6	Part Vacant	0.7
051W19A 01900	197	6	Part Vacant	0.7
052W13BD01600	187	7	Part Vacant	0.7
052W13BD01700	187	7	Part Vacant	0.7
052W13BD01800	187	7	Part Vacant	0.7
052W13BD01500	187	7	Developed	0.7

Table 24: Industrial Potential Redevelopment – Existing UGB

TAXLOT	OWNER_NAME	ACRES	Dev	IND Net Ac
051W08A 00300	BARRETT PROPERTIES	1.85	Redev	1.57
051W08A 00800	CARVER, DANIEL L DBA	1.39	Redev	1.18
051W08A 01200	CARVER, DANIEL L DBA	1.33	Redev	1.13
051W08A 02400	BARRETT PROPERTIES	2.86	Redev	2.43
051W08A 03600	MORGAN DRIVE AWAY INC	3.83	Redev	3.26
051W08B 02000	MORGAN DRIVE AWAY INC	1.91	Redev	1.62
051W08B 02100	MORGAN DRIVE AWAY INC	1.35	Redev	1.15
051W18AB12500	WILLAMETTE VALLEY LAW PROJECT	0.11	Redev	0.09

Table 25: Commercial Potential Redevelopment – Existing UGB

TAXLOT	OWNER_NAME	ACRES	ZONING	Dev	COM Net Ac	Com Emp
051W08CD05600	STEPHENSON, SEAN &	0.71	CO	Redev	0.64	12
051W07CA03400	HAMMACKS MARKETS INC	0.24	CO	Redev	0.22	4
051W18BA02300	CORNWELL FAMILY LTD PARTNERSHIP	0.23	CO	Redev	0.21	4
051W07CD12400	CORNWELL FAMILY LTD PARTNERSHIP	0.20	CO	Redev	0.18	3
051W07DC08300	HIGGINS TRUST &	0.14	CO	Redev	0.13	2
051W08CD05800	SAMOILOV, MIKE & MARIA	0.14	CO	Redev	0.13	2
051W07CA03100	HAMMACKS MARKET INC	0.12	CO	Redev	0.11	2
051W07CA03200	HAMMACKS MARKET INC	0.12	CO	Redev	0.11	2
051W07CA03300	HAMMACKS MARKETS INC	0.12	CO	Redev	0.11	2
051W07DC08500	BRITO, MARIO & M DEL CARMEN	0.12	CO	Redev	0.11	2
051W07DC08400	NAVA, NOE C & LUCIA GONZALEZ	0.09	CO	Redev	0.08	1
051W18BA10600	LIND, JAMES ANDREW JR	0.07	CO	Redev	0.06	1

EXHIBIT 4-F

4-F

TECHNICAL REPORT 2

**WOODBURN RESIDENTIAL
LAND NEEDS ANALYSIS**

Item No. 10
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DRAFT

TECHNICAL REPORT 2
WOODBURN RESIDENTIAL LAND NEEDS ANALYSIS

Prepared for:

CITY OF WOODBURN
270 Montgomery Street
Woodburn, OR 97071

Prepared by:

WINTERBROOK PLANNING
310 SW Fourth, Suite 1100
Portland, Oregon 97204



May 2005

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INTRODUCTION

Technical Report 2, Woodburn Residential Land Needs Analysis, projects the land area needed for residential and public-semi-public uses for the 18-year planning period, from 2003 to 2020. This analysis is based on the *tentative* coordinated population projection of 34,919, which represents an increase of 14,059 persons from Portland State University's 2002 population estimate for Woodburn.¹

Residential Land Needs

In this document, we determine Woodburn's residential land needs based on the requirements of HB 2709 (ORS 197.196) and Statewide Planning Goals 10 (Housing) and 14 (Urbanization). We determine "actual housing mix and density" from 1988-2002, to arrive at a "base case" scenario. We then conduct a detailed housing needs analysis, wherein we examine demographic relationships and compare housing costs with household incomes in Woodburn. From this, we determine buildable land needs for specific housing types (detached single-family, attached single-family, manufactured homes on individual lots, manufactured dwelling parks, duplexes, and multi-family) and densities. Finally, we determine the need for parks, schools, and other public and semi-public land uses that typically are met on residential land. The result is the total residential land need to accommodate the 14,059 population increase over approximately the next 18 years.

Economic Opportunities Analysis

ECONorthwest prepared an Economic Opportunities Analysis (EOA) in May 2001 that considered Woodburn's comparative advantages and identified the types of employment and industries that Woodburn can reasonably attract during the planning period. To address ORS 197.212 (Economic Development) and Goal 9 (Economy of the State) requirements, ECONorthwest also determined the types of sites that will be needed to attract targeted industries, in a subsequent document entitled Site Requirements for Woodburn Target Industries (February 2003). These documents recognize the City's locational advantages and outline a strategy for the City to target specific high-wage industries for future growth. Both documents conclude the City will need additional land with specific size and access characteristics to achieve the City's economic development goals. These two ECONorthwest documents serve to determine Woodburn's employment land needs through 2020.

In March of 2003, ECONorthwest also analyzed the effects of a successful economic development strategy on household incomes, and therefore on housing needs, in a document called Woodburn Occupation / Wage Forecast (Attachment B). This analysis concluded that:

¹ ECONorthwest prepared Woodburn's Year 2020 population projection for review by Marion County in March, 2002. Via letter, Marion County Senior Planner Les Sasaki agreed that this projection was reasonable for planning purposes. The Marion County Board of Commissioners has not formally agreed to this population projection, which is why it is "tentative".

- *More than 50% of new jobs created between 2000 and 2020 are expected to pay less than \$30,000 annually on a full-time equivalent basis.² This is a range of \$7.00 to \$15.00 per hour expressed as an hourly wage. About 18% will pay between \$30,000 and \$39,000 annually, about 13% will pay between \$40,000 to \$49,000 annually, and about 12% will pay more than \$49,000 annually.*
- *The successful implementation of Woodburn's economic development strategy will have a significant impact on the city's wage distribution. The strategy will result in fewer low-paying retail and service jobs, and more high-wage manufacturing, construction, and skilled occupations.*

ADEQUACY OF THE EXISTING URBAN GROWTH BOUNDARY

In Technical Report 1, Buildable Lands Inventory, we determined the buildable land area, on a parcel-by-parcel basis, within the existing (2002) Woodburn Urban Growth Boundary (UGB). In this document we compare the buildable land supply with projected demand for residential and public/semi-public land. This will enable the City to determine whether comprehensive plan map amendments are necessary to meet long-term population and livability growth needs.

UPDATES TO THIS DOCUMENT

The 2005 revisions to this Residential Land Needs Analysis are based on comments by the Department of Land Conservation and Development, Marion County, and others regarding the methods and results of the 2003 Buildable Lands Inventory and 2003-04 Land Needs Analyses.

Residential Land Needs

Statutory Provisions Related to Residential Land Needs

Woodburn is required to provide a 20-year supply of buildable residential land within its Urban Growth Boundary (UGB). Statewide Planning Goals 10 and 14, as well as ORS 197.295-197.312 and OAR 660-07, set forth requirements for residential land use planning. In 1995 the Oregon Legislature passed House Bill 2709 (ORS 197.296) which supplements existing state requirements for the analysis of long-term residential land needs and provision of buildable residential land within UGBs.³

² A full-time equivalent assumes 1980 hours annually. We recognize that many new jobs in Woodburn are likely to be part-time jobs that will not equate to the annual salary estimates. The base data, however, do not make a distinction between full-time and part-time employment.

³ This section reads as follows:

(3) *As part of its next periodic review pursuant to ORS 197.628 to 197.650 following September 9, 1995, or any other legislative review of the urban growth boundary, a local government shall:*
 (a) *Inventory the supply of buildable lands within the urban growth boundary;*
 (b) *Determine the actual density and the actual average mix of housing types of residential development that have occurred within the urban growth boundary since the last periodic review or five years, whichever is greater; and*
 (c) *Conduct an analysis of housing need by type and density range, in accordance with ORS 197.303 and statewide planning goals and rules relating to housing, to determine the amount of land needed for each needed housing type for the next 20 years.*

All jurisdictions over 25,000 are required to comply with the provisions of ORS 197.296 at periodic review or any other legislative review of an urban growth boundary. ORS 197.296 contains two key objectives:

Housing: Ensure that development occurs at the densities and mix necessary to meet a community's housing needs over the next 20 years, in accordance with ORS 197.303, Statewide Planning Goal 10 and OAR Chapter 660, Division 7, Housing.

Land: Ensure there is enough buildable land to accommodate the 20-year housing need inside the UGB.

HB 2709 set forth the following step-by-step requirements related to determine the amount of residential land needed within a UGB. Tasks in **bold** are addressed in order in this document:

1. **Reach agreement on a coordinated population projection with Marion County.**
2. **Determine actual housing density and mix for the last 5 years or since the last Periodic Review, whichever is greater.**
3. **Project 20-year residential land needs based on actual density.**
4. **Determine housing needs based on a comparison of housing costs and income – which may be different from actual housing density and mix. Then:**
 - a) **determine the extent to which actual housing types and densities in Woodburn have been responsive to Woodburn's housing needs; and**
 - b) **identify measures to increase densities within the UGB to minimize the need to expand the UGB to meet identified housing needs.**

(4) If the determination required by subsection (3) of this section indicates that the urban growth boundary does not contain sufficient buildable lands to accommodate housing needs for 20 years at the actual developed density that has occurred since the last periodic review, the local government shall take one of the following actions:

(a) Amend its urban growth boundary to include sufficient buildable lands to accommodate housing needs for 20 years at the actual developed density during the period since the last periodic review or within the last five years, whichever is greater. As part of this process, the amendment shall include sufficient land reasonably necessary to accommodate the siting of new public school facilities. The need and inclusion of lands for new public school facilities shall be a coordinated process between the affected public school districts and the local government that has the authority to approve the urban growth boundary;

(b) Amend its comprehensive plan, functional plan or land use regulations to include new measures that demonstrably increase the likelihood that residential development will occur at densities sufficient to accommodate housing needs for 20 years without expansion of the urban growth boundary. A local government or metropolitan service district that takes this action shall monitor and record the level of development activity and development density by housing type following the date of the adoption of the new measures; or

(c) Adopt a combination of the actions described in paragraphs (a) and (b) of this subsection.

5. **Determine residential land needs for school facilities. We have also determined residential land needs for parks.**
6. **Determine the buildable land area⁴ available to meet housing needs, after considering infill and redevelopment potential.**
7. **Ensure that sufficient buildable land is designated for needed housing types at density ranges likely to be achieved in the housing market, as well as for public needs that occur within a residential plan designation.**
8. **Amend the UGB and/or adopt measures to provide sufficient buildable land to accommodate projected 20-year residential land need.**

Coordinated Population Projection

Winterbrook and ECONorthwest worked with the City, the County, and TGM administrators to determine a coordinated population projection for the purposes of this study. **The Interim – approved by County Planning Staff for planning purposes – Woodburn 2020 population projection is 34,919.** This is an increase of 14,819 from the 2000 U.S. Census population of 20,100 (Average Annual Growth Rate of 2.8%). This projection is the basis for projecting residential and public semi/public land needs.

Determine Actual Housing Density and Mix

This step determines the actual mix and density of housing development in Woodburn from 1988-2002⁵.

Trends in the Housing Mix

The housing mix (i.e., percentage of single-family, attached single-family, single-family manufactured, duplex and multi-family dwelling units) is an important variable in any housing needs assessment. Distribution of housing types is influenced by a variety of factors, including the cost of new home construction, area economic and employment trends, and amount of land zoned to allow different housing types and densities.

Tables 1, 2 and 3 below, through analysis of data from the 1990 and 2000 U.S. Census of Population and Housing, give a snapshot of the *status quo* for housing development in Woodburn. Since 1990 is within the study period, Tables 2 and 3 determine actual development before and after the snapshot to examine trends.

⁴ Technical Report 1: Buildable Lands Inventory, responds to the **buildable lands** requirements of ORS 197.296.

⁵ ORS 197.296 requires a time period of 5 years or the last periodic review, whichever is greater, for the purposes of this study. DLCD issued Woodburn's periodic review notice in 1988.

Woodburn, 1990 U.S. Census of Population and Housing

In 1990, Woodburn had a total of 4,890 housing units. Of these, 3,504 (72%) were conventional "stick-built" single-family residences. Multi-family and duplex units were relatively rare, at 16% and 2% respectively, while the 513 manufactured homes comprised 10% of the total housing units.

Table 1: Woodburn, 1990 Housing Summary

Housing Type	Units	Percentage of Total
Single-Family Detached	3,504	72%
Multi-Family	772	16%
Duplex	101	2%
Manufactured Homes	513	10%
Totals	4,890	100%

Source: 1990 US Census

Woodburn, 2000 U.S. Census of Population and Housing

By the Year 2000, Woodburn had a total of 6,784 housing units. Of these, 4,592 (68%) were conventional "stick-built" single-family residences. Multi-family units were second highest at 20%, while duplex units and manufactured homes stayed at 2% and 10% respectively.

Table 2: Woodburn, 2000 Housing Summary

Housing Type	Units	Percentage of Total
Single-Family	4,592	68%
Multi-Family	1,377	20%
Duplex	158	2%
Manufactured Homes	657	10%
Totals	6,784	100%

Source: 2000 US Census

Table 3 describes the change in Woodburn's housing composition from 1990 to 2000. Woodburn added 1,894 housing units from 1990 to 2000. Of these units, 57% were single-family, 32% multi-family, 3% duplex, and 8% manufactured home. The most significant changes occurred in a shift from single-family to multi-family development. Fully 32% of additional units between 1990 and 2000 were multi-family units, while in 1990, only 16% of the total housing stock was multi-family.

Table 3: Woodburn, 1990-2000 Housing Type Changes

Housing Type	1990 Units	2000 Units	Change in Units	Percent of Total Unit Change
Single-Family	3,504	4,592	1,088	57%
Multi-Family	772	1,377	605	32%
Duplex	101	158	57	3%
Manufactured Homes	513	657	144	8%
Totals	4,890	6,784	1,894	100%

Source: 1990 and 2000 U.S. Census

Actual Development

Actual development from 1988 to 2002 in Woodburn was determined through review of building permits – for the 1988-1997 period by the McKeever/Morris Woodburn Buildable Lands and Urbanization Project (February, 2000), and for the 1998-2002 period by Winterbrook Planning.

Woodburn, 1988-1997 Actual Development Mix

Of the 1,280 units approved between 1988 and 1997, 31% were single-family detached, 29% were multi-family, 2% were duplexes, and 38% were manufactured homes. New Woodburn housing during this period developed at an average density of about 6.6 dwelling units per net acre.

Table 4: Actual Development 1988-1997

Type	Units	Percent	Net Acres	Net Density
SFR	394	31%	72.2	5.46
MFR	377	29%	25.1	15.02
Dup	22	2%	1.4	15.71
MH	487	38%	95.1	5.12
Total	1,280	100%	193.8	6.60

Source: McKeever-Morris – Woodburn Buildable Lands and Urbanization Project, 2000

Woodburn, 1998-2002 Actual Development Mix

Of the 904 units approved between 1998 and 2002, 59% were single-family detached, 36% were multi-family, 1% were duplexes, and 36% were manufactured homes. New Woodburn housing during this period developed at an average density of about 8.4 dwelling units per net acre, due to a high proportion of high-density multi-family units and PUDs.

Table 5: Actual Development 1998-2002

Type	Units	Percent	Net Acres	Net Density
DSFR	556	59%	84.8	6.6
ASFR	0	0%	0	N/A
MFR	302	36%	16.5	18.3
Duplex	10	1%	1.1	8.71
MH	36	4%	5.0	7.26
Total	904		107.4	8.4

Source: Winterbrook Planning and McKeever/Morris.

Summary of Actual Housing Mix and Density

Table 6 summarizes the average actual housing mix and density in Woodburn for the years 1988-2002. Overall, Woodburn has averaged 7.2 dwelling units per net buildable acre:

- Detached single-family housing has accounted for about 43% of all new units in Woodburn. The average actual single-family residential density has been about 6 units per net buildable acre.

- We did not see any building permit information for attached single-family housing during this time period.
- Multi-family housing has accounted for about 31% of all new units in Woodburn since 1988. The average actual multi-family density in Woodburn has been about 16.3 units per net buildable acre.
- Duplexes have accounted for 1% of all new units in Woodburn. The average duplex density has been about 12.6 units per net buildable acre.
- Manufactured housing has accounted for 24% of all new units in Woodburn. The average actual manufactured housing density has been about 5.2 units per net buildable acre.

Table 6: Actual Development 1988-2002

Type	Units	Percent	Net Acres	Net Density
SFR	950	43%	157.0	6.05
MFR	679	31%	41.6	16.31
Dup	32	1%	2.5	12.56
MH	523	24%	100.1	5.23
Total	2184	100%	301.2	7.25

Source: City of Woodburn; Winterbrook Planning; McKeever-Morris

Woodburn Subdivisions 1998 to 2002

Winterbrook conducted a study of available subdivision and partition data for the years 1998 through 2002 as a comparison to the building permit data.

We were able to find complete information for 11 projects, comprising a total of 506 lots and about 105 acres. This gross density was approximately 4.8 lots per acre. To determine net area, we removed area dedicated for streets (Ded. Area), access easements (Access Area), and required open space (Tracts Area). Subdivisions and PUDs were determined to have an average of 26% of their area devoted to streets, access, and open space. This led to an average net density of almost 6.6 units per net acre for subdivisions and PUDs during the time period studied. It is important to note that a few of the major subdivision developments (Links at Tukwila, Ironwood at Tukwila) were associated in a large PUD with a golf course in the northern portion of Woodburn. This allowed high densities within the subdivisions, which Table 7 reflects below, but a much lower gross density if the golf course were to be included.

Table 7: Woodburn Subdivision and PUD Summary, 1998-2002

Tot. Projects	Tot. Area	# Lots	Gross Density	Ded. Area	Access Area	Tracts Area	% Unbuild	Net Area	Net Density
11	104.90	506	4.82	25.01	0.38	2.39	26%	77.12	6.56

Source: City of Woodburn; Winterbrook Planning

Projected 20-Year Residential Land Needs Based on Actual Density

The "Base Case Scenario" as described below is based on "actual housing densities" observed from 1988-2002 (Table 6), as prescribed by ORS 197.296(4)(a). Implementation of this base case scenario does not require additional plan policy or code text amendments. Implementation of this scenario would, of course, require comprehensive plan map, urban growth boundary and (eventually) zoning map amendments.

Year 2020 Housing and Buildable Land Needs Method – Actual Development 1988-2002

For the scenario based on actual development we:

1. Determined the actual mix and density of dwelling unit (DU) types in new developments (from 1988 to 2002).
2. Used ECONorthwest's projected and Marion County interim planning population projection of 34,919.
3. Applied the 2000 US Census ratio of institutional population to projected population increase. Subtracted these 337 "institutional" people from the population growth for purposes of dwelling unit need.
4. Assumed a projected average household size figure of 2.9.⁶
5. Applied an average occupancy rate of 95% (or a vacancy rate of 5%⁷) to all housing types.

We determined the number of needed dwelling units (DU) by multiplying the actual mix by the population increase, dividing by household size, then dividing by occupancy rate. We determined needed acres by dividing the number of dwelling units by actual density. We then applied the above factors to create Table 8.

Table 8 shows a need for 4,968 dwelling units and about 680 net buildable residential acres, using the above methods. Table 8 shows the housing mix and density experienced in Woodburn over the last 14 years – one possible zoning allocation that can achieve 7.25 dwelling units per acre. Table 8 does not include need for Public and Semi-Public uses, which is discussed in the Public and Semi-Public section of this document.

⁶ The actual household size has risen sharply in Woodburn from 2.7 in 1990 to 3.1 in 2000. This increase can be attributed largely to in-migration of families with small children. We project a return in household size over the next 20 years (reflecting national trends and cultural shifts) to 2.9 persons per household. See discussion under Household Size in the Demographics section of this document.

⁷ The 2000 US Census shows overall vacancy rates in Woodburn of 8%. This is a substantial increase from 1990's overall vacancy rate of 2.7%. We projected a midrange vacancy rate of 5%. See discussion under Vacancy Rate in the Demographic Information section of this document.

Table 8: Residential Land Need based on Actual Development

Type	Percent	Units	Net Density	Needed Net Acres
DSFR	43%	2,136	6.05	353.1
MFR	31%	1,540	16.31	94.4
Duplex	1%	49.68	12.56	4.0
MH	24%	1,192	5.23	228.0
Totals	100%	4,968	7.25	679.5

Source: City of Woodburn; McKeever-Morris; Winterbrook Planning

HOUSING NEEDS ANALYSIS

Demographic Information

While housing needs can be projected based on past trends, there are other factors that should be considered in a Housing Needs Analysis. Demographic information – statistics on age, education, income, employment, and housing costs – provides insight into the nature of need. The following sections compare Woodburn’s demographic information with some other Willamette Valley cities (Wilsonville, Salem, and Portland) as well as with Marion County and Oregon as a whole, describe recent trends for each demographic factor, and analyze the demographic information in relation to Woodburn’s short and long term objectives.⁸

Education

Overview. Tables 9, 10, and 11 below depict the educational achievement level of working-age residents of Woodburn, Wilsonville, Salem, Portland, Marion County, and Oregon. Educational levels are important in a housing needs analysis, as education levels are related to potential income. An educated populace is also more attractive to potential employers, which can lead to more jobs and more money to spend on housing.

Comparison. Compared to the other cities, Marion County, and Oregon, educational levels in Woodburn are quite low. Woodburn has a much lower percentage of population with college education than any of the comparators. In addition, Woodburn has a much higher percentage of population with less than a high school degree.

Trend. From 1990 to 2000, the percentage of college graduates rose slightly in Woodburn – the percentage of population with a bachelors degree or higher rose by a total of 3% - but the percentage of persons with less than a 9th grade education increased from 20% to 26%. In all other comparators, education levels rose across the board. None of the other comparators showed an increase in population with less than a 9th grade education.

Interpretation. The general educational level of adults in Woodburn is relatively low, and the percentage of persons with no high school experience has risen over the last 10 years. These lower educational levels can be explained by the large numbers of recent immigrants (described in the Nativity section, and Tables 17, 18, and 19) who often are poorly educated.

⁸ 1990 and 2000 data used in this analysis is from the 1990 and 2000 US Census.

People with lower educational levels typically have lower incomes and generally cannot afford higher-priced housing. Part of Woodburn's economic development strategy is to provide improved educational and job training services. As educational levels increase, so will household incomes. Recent housing trends indicate an increase in multi-family housing, which generally is more affordable than single-family housing. As Woodburn's newer residents become better educated, they are more likely to afford homeownership, and to demand more traditional single-family housing.

Table 9: Educational Attainment, 1990

1990 EDUCATIONAL ATTAINMENT	1990 Woodburn	1990 Wilsonville	1990 Salem	1990 Portland	1990 Marion County	1990 Oregon
Less than 9th grade	20%	1%	7%	6%	9%	6%
9th to 12th grade, no diploma	17%	8%	12%	11%	13%	12%
High school graduate	30%	23%	26%	25%	29%	29%
Some college, no degree	20%	28%	26%	26%	25%	25%
Associate degree	5%	6%	8%	6%	7%	7%
Bachelor's degree	6%	24%	14%	17%	12%	14%
Graduate or professional degree	3%	8%	8%	9%	6%	7%

Source: 1990 US Census

Table 10: Educational Attainment, 2000

2000 EDUCATIONAL ATTAINMENT	2000 Woodburn	2000 Wilsonville	2000 Salem	2000 Portland	2000 Marion County	2000 Oregon
Less than 9th grade	26%	2%	8%	5%	9%	5%
9th to 12th grade, no diploma	16%	5%	11%	9%	11%	10%
High school graduate	24%	20%	24%	22%	26%	26%
Some college, no degree	20%	28%	27%	25%	27%	27%
Associate degree	3%	7%	6%	6%	7%	7%
Bachelor's degree	7%	26%	15%	21%	13%	16%
Graduate or professional degree	4%	12%	9%	11%	7%	9%

Source: 2000 US Census

Table 11: Educational Attainment Trends, 1990-2000

1990-2000 ATTAINMENT TRENDS	1990-2000 Woodburn	1990-2000 Wilsonville	1990-2000 Salem	1990-2000 Portland	1990-2000 Marion County	1990-2000 Oregon
Less than 9th grade	6%	1%	1%	0%	1%	-1%
9th to 12th grade, no diploma	-1%	-3%	-1%	-2%	-1%	-2%
High school graduate	-6%	-3%	-2%	-3%	-3%	-3%
Some college, no degree	0%	0%	1%	-1%	2%	2%
Associate degree	-2%	0%	-1%	0%	-1%	0%
Bachelor's degree	2%	2%	1%	4%	1%	3%
Graduate or professional degree	1%	3%	1%	2%	1%	2%

Source: 1990 & 2000 US Census

Age

Overview. Table 11 below depicts age distribution and median ages in Woodburn, Wilsonville, Salem, Portland, Marion County, and Oregon. The age of a city's population is important in a housing needs analysis because different ages can indicate different types of housing requirements. For example, families with children are more likely to want single-family homes, while young people just entering the work force are more likely to be looking for rental housing. An older population is likely to desire smaller lot homes, townhouses, or condominiums, as their household sizes are smaller (1-2 persons) and yard work can become a burden.

Comparison. Woodburn has a high percentage of its population at the ends of the age spectrum. In 2000, 42% of Woodburn's population was under 25 years old, compared with 34% for Wilsonville, 37% for Salem, 31% for Portland, 38% for Marion County, and 34% for the state as a whole. Woodburn has retained a relatively large elderly population. In 2000, 18% of Woodburn's population was 65 years old or older, compared to 14% for Wilsonville, 12% for Salem, Portland, and Marion County, and 13% for Oregon.

Trend. Woodburn has become noticeably younger over the last decade. In 1990, 36% of the population was under 25 years old. In 1990, 26% of Woodburn's population was 65 years old or older. During the next 10 years, the under 25 cohort increased in Woodburn by 5%, while the 65 and older cohort decreased by 8%. As shown in Table 14, Woodburn's age distribution increased only in age groups between 10 and 44 years of age – by 8% total. This is quite different from all other comparators. Every other comparator showed a substantial increase (3-5%) in the 45-54 age cohort, while Woodburn remained the same at that age.

Interpretation. Woodburn has become relatively young city, with an unusually high proportion of young adults and families. This trend can be explained in terms of immigration of younger workers, who often have large families. However, Woodburn has retained a high percentage of retirement-age residents, which can be explained by the presence of a large senior housing development (Woodburn Senior Estates) and by long-term residents.

The lack of family wage jobs in Woodburn may have contributed to an out-migration of working age people who were born in Woodburn.

Typically, households at the bottom and top of the age pyramid have less disposable income to spend on housing, while households headed by middle-aged workers have higher-paying jobs and demand higher cost housing. Woodburn's policy is to provide more family-wage jobs, thus retaining younger and middle-aged workers in the community. This will have the effect of increasing demand for traditional single-family housing, and decreasing demand for more affordable housing types such as apartments and manufactured homes.

Table 12: Age Distribution, 1990

Age Distribution 1990	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Under 5 years	9%	7%	7%	8%	7%	7%
5 to 9 years	9%	6%	7%	8%	8%	7%
10 to 14 years	6%	6%	6%	3%	7%	7%
15 to 19 years	6%	6%	6%	4%	7%	7%
20 to 24 years	7%	7%	8%	5%	7%	7%
25 to 34 years	14%	19%	18%	20%	16%	16%
35 to 44 years	9%	18%	16%	15%	15%	17%
45 to 54 years	8%	9%	9%	10%	10%	10%
55 to 59 years	3%	3%	4%	5%	4%	4%
60 to 64 years	4%	4%	3%	6%	4%	4%
65 to 74 years	12%	8%	8%	11%	8%	8%
75 to 84 years	10%	5%	5%	4%	5%	5%
85 years and over	4%	2%	2%	1%	2%	1%

Source: 1990 US Census

Table 13: Age Distribution, 2000

Age Distribution 2000	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Under 5 years	9%	8%	7%	6%	8%	7%
5 to 9 years	8%	7%	7%	6%	8%	7%
10 to 14 years	7%	7%	7%	6%	7%	7%
15 to 19 years	9%	6%	7%	6%	8%	7%
20 to 24 years	8%	7%	8%	8%	7%	7%
25 to 34 years	15%	16%	15%	18%	14%	14%
35 to 44 years	11%	15%	15%	16%	15%	15%
45 to 54 years	8%	12%	13%	15%	13%	15%
55 to 59 years	3%	4%	4%	4%	5%	5%
60 to 64 years	3%	3%	3%	3%	4%	4%
65 to 74 years	8%	7%	6%	5%	6%	6%
75 to 84 years	7%	6%	5%	5%	5%	5%
85 years and over	3%	2%	2%	2%	2%	2%

Source: 2000 US Census

Table 14: Age Distribution Trends, 1990-2000

Age Distribution Trend 1990-2000	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Under 5 years	0%	1%	0%	-2%	0%	-1%
5 to 9 years	0%	1%	0%	-2%	0%	-1%
10 to 14 years	1%	1%	1%	2%	0%	0%
15 to 19 years	3%	0%	1%	3%	1%	1%
20 to 24 years	1%	0%	0%	2%	0%	0%
25 to 34 years	1%	-3%	-3%	-2%	-2%	-2%
35 to 44 years	2%	-3%	-1%	2%	-1%	-1%
45 to 54 years	0%	3%	4%	5%	3%	4%
55 to 59 years	0%	1%	1%	-1%	1%	1%
60 to 64 years	0%	-1%	0%	-3%	0%	0%
65 to 74 years	-4%	-1%	-2%	-6%	-2%	-2%
75 to 84 years	-3%	1%	0%	1%	0%	0%
85 years and over	-1%	0%	0%	1%	0%	0%

Source: 1990 & 2000 US Census

Household Size

Overview. Table 13 depicts the average household size, as well as the change in household size, for Woodburn, Wilsonville, Salem, Portland, Marion County, and Oregon in 1990 and 2000. Changes in household size can have a significant affect on the number of housing units a community will need to house its population. There are two probable affects on housing demand from larger household sizes: first, families with many children typically have less disposable income to spend on housing; second, these same families are likely to spend a greater proportion of their incomes on housing, and prefer traditional single-family homes.

Comparison. In 1990, Woodburn had a larger average household size (2.7 persons per household) than Wilsonville (2.3), Salem (2.4), Portland (2.3), Marion County (2.6), and Oregon as a whole (2.5). By 2000, Woodburn's household size had increased to 3.11 while Wilsonville and Portland stayed basically the same. Salem and Marion county increased to 2.5 and 2.7 persons per household respectively. The state of Oregon as a whole actually declined very slightly in household size during this time period, from 2.52 to 2.51 persons per household.

Trend. The state of Oregon as a whole was the only comparator to decline in household size during this time period. Woodburn increased household sizes by 15%, while Wilsonville, Salem, Portland, and Marion County increased by 1-5%.

Interpretation. The rise in household size in Woodburn can be explained largely by immigration of young and growing families, who typically have low educational levels and low incomes (see discussion of Age, Education, and Income in this document). Woodburn's immigrant families have been mostly of Central European or Hispanic heritage, two groups that typically have more children and therefore larger household sizes. However, based on the experience of other immigrant groups in America, household size can be expected to more closely approximate County-wide averages as young families mature, children create

their own households, educational and income levels increase, and the cultural expectations change.

Part of Woodburn's economic development strategy is to provide improved educational and employment opportunities. Thus, it is reasonable to project that household sizes will remain high, but will more closely approximate household sizes in Marion County as a whole by the Year 2020. Woodburn should plan both to provide affordable single family homes, and maintain a supply of affordable multi-family housing opportunities, such as provided by Nuevo Amanecer and Esperanza Court.

Table 15: Persons per Household 1990-2000

Household Size 1990-2000	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Average household size 1990	2.7	2.29	2.41	2.27	2.6	2.52
Average household size 2000	3.11	2.34	2.53	2.3	2.7	2.51
Trend	115%	102%	105%	101%	104%	100%

Source: 1990 & 2000 US Census

Households by Type

Overview. Tables 16, 17, and 18 below show the type of households in Woodburn, Wilsonville, Salem, Portland, Marion County, and the state of Oregon, for 1990 to 2000. Household type tells us the components of households – whether the households are serving families, unrelated persons, a single householder, or if the householder is age 65 or older. Household type is important to know in a housing needs analysis, as it explains what sectors of the population are using the housing available.

Comparison. In 1990, Woodburn had a comparatively high percentage of family households at 69%. Wilsonville was also at 69%, and Marion County was slightly higher at 70%, but Salem was at 63%, and Portland was lowest at only 56%. The state as a whole was slightly lower than Woodburn for family households, at 68%. In 1990, 28% of Woodburn's households were occupied by one person, compared to 24% in Wilsonville, 30% in Salem, 35% in Portland, and 25% in Marion County and Oregon. Woodburn had a large proportion of householders aged 65 and above at 20%, substantially higher than the comparators, which ranged from 8% in Wilsonville to 12% in Salem and Portland.

In 2000, Woodburn had the highest percentage of family households among the comparators at 72% - 3% higher than Marion County, 6% higher than Oregon as a whole, 8% higher than Wilsonville and Salem, and 19% higher than Portland. Woodburn had a comparatively low percentage of householders living alone (24%) – equal to Marion County, 2% lower than Oregon as a whole, 4% lower than Wilsonville and Salem, and 11% lower than Portland. Woodburn still had the highest percentage of householders aged 65 and above in 2000, at 16% compared to 9-10% for other comparators.

Trend. Woodburn moved from a high percentage of family households in 1990 (69%), to a higher percentage (72%) in 2000. This is in opposition to trends among the comparators, where Wilsonville dropped 6%, Salem remained constant, Portland dropped 3%, Marion County dropped 1%, and Oregon as a whole dropped 2%. Woodburn decreased substantially (by 4%) from 1990 to 2000 in its percentage of householders living alone, compared to an increase of 4% in Wilsonville, a decrease of 2% in Salem, no change in Portland, a decrease

of 1% in Marion County, and an increase of 1% in Oregon as a whole. Woodburn's percentage of householders age 65 and above also decreased more than all other comparators – a 4% drop – compared to a 2% increase in Wilsonville, a 2% decrease in Salem, a 3% decrease in Portland, a 1% decrease in Marion County, and a 1% decrease in Oregon as a whole.

Interpretation. Woodburn increased from 69% to 72% in family households, and dropped in all other categories. This means that a vast majority (calculated to 79%) of new households between 1990 and 2000 in Woodburn were occupied by families. The 4% drop in householders aged 65 and above in Woodburn reflects the younger age of new Woodburn residents (see discussion under Age in this document). Woodburn should plan to meet the needs of these young families as they become more established in the community and integrated into the workforce. Woodburn should not just plan for development to serve the existing and future young families, but realize many of the families now in Woodburn will a) be able to develop wealth to afford ownership housing; and b) will have young adults moving out of the family home and needing affordable rental housing.

Table 16: Households by Family Status 1990

HOUSEHOLDS BY TYPE 1990	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Family households (families)	69%	69%	63%	56%	70%	68%
Nonfamily households	31%	31%	37%	44%	30%	32%
Householder living alone	28%	24%	30%	35%	25%	25%
Householder 65 years and over	20%	8%	12%	12%	11%	10%

Source: 1990 US Census

Table 17: Households by Type 2000

HOUSEHOLDS BY TYPE 2000	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Family households (families)	72%	64%	64%	53%	69%	66%
Nonfamily households	28%	36%	36%	47%	31%	34%
Householder living alone	24%	28%	28%	35%	24%	26%
Householder 65 years and over	16%	10%	10%	9%	10%	9%

Source: 2000 US Census

Table 18: Households by Type 1990-2000

Households by Type Trend 1990-2000	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Family households (families)	2%	-6%	0%	-3%	-1%	-2%
Nonfamily households	-2%	6%	0%	3%	1%	2%
Householder living alone	-4%	4%	-2%	0%	-1%	1%
Householder 65 years and over	-4%	2%	-2%	-3%	-1%	-1%

Source: 1990 & 2000 US Census

Vacancy Rates

Overview. Tables 14, 15, and 16 depict vacancy rates for Woodburn, Wilsonville, Salem, Portland, Marion County, and Oregon in 1990 and 2000. Vacancy rates are important in determining future land needs, as they can affect market choice as well as development trends.

Comparison. Woodburn in 1990 had the lowest overall vacancy rate of all comparators. Woodburn's homeowner vacancy rates were fairly comparable at 1.3% to Wilsonville (1.2%), Salem and Portland (1.6%), Marion County (1.1%), and Oregon (1.4%). Woodburn's rental vacancy rate in 1990 was less than half the rate of the other comparators – at 1.6%, compared to 3.7% for Marion County, all the way to 9.9% for Wilsonville. In 2000, Woodburn's homeowner vacancy rate was over twice as high as the other comparators – 5.9% compared to 2.3-2.6% for the others. Woodburn's rental vacancy rate was still fairly low at 6.4%, compared to 9.5% in Wilsonville, 7% in Salem, 6.8% in Marion County, and 7.3% in Oregon as a whole. Only Portland came in lower, at 6.2%.

Trend. Woodburn's vacancy rates for both ownership and rental housing units rose substantially between 1990 and 2000. The homeowner vacancy rate in Woodburn rose by 4.6% over the 10 years, compared to 0.7-1.4% rises in the comparators. The rental vacancy rate in Woodburn rose by 4.8%, compared to a slight decline in Wilsonville (-0.4%) and rises between 1.5-3.1% in the comparators.

Interpretation. In 1990, Woodburn had a very low vacancy rate, which indicates lack of choice in the market for both ownership and rental housing units at that time. Since 1990, Woodburn's population grew substantially (from 13,404 to 20,100), and Woodburn's housing market responded by increasing housing unit supply by nearly 2,000 total units (4,922 to 6,824). As explained in the Age, Household by Type, and Household Size sections, the increase in population between 1990 and 2000 was mostly young families, with a high average household size. This phenomenon has led to a fairly high vacancy rate among ownership units in 2000, compared with Wilsonville, Salem, Portland, Marion County, and Oregon.

However, one of Woodburn's goals is to increase the education and wage levels of its residents by increasing educational and employment opportunities. As described in the Age and Household Size sections, this policy direction taken by Woodburn should act to decrease average household sizes, increasing the demand for housing units. It's important to maintain choice and competition in the housing market, both to lower prices and to meet the wide-ranging housing needs of Woodburn's diverse population, so the current vacancy rate should not be considered a "problem". Nonetheless, we find it likely that Woodburn's vacancy rate will move toward Marion County's overall vacancy rate over the next 20 years, due to projected changes in age, income, employment, and culture.

Table 14: Vacancy Rates, 1990

Vacancy Rates 1990	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Homeowner vacancy rate	1.3%	1.2%	1.6%	1.6%	1.1%	1.4%
Rental vacancy rate	1.6%	9.9%	4.0%	4.7%	3.7%	5.3%
Overall Vacancy Rate	2.7%	6.7%	3.9%	5.6%	3.9%	7.6%

Source: 1990 US Census

Table 15: Vacancy Rates, 2000

Vacancy Rates, 2000	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Homeowner vacancy rate	5.9%	2.6%	2.5%	2.3%	2.5%	2.3%
Rental vacancy rate	6.4%	9.5%	7.0%	6.2%	6.8%	7.3%
Overall Vacancy Rate	8.1%	7.3%	5.8%	5.7%	6.0%	8.2%

Source: 2000 US Census

Table 16: Vacancy Rates Trend, 1990-2000

Vacancy Rates Trend 1990-2000	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Homeowner vacancy rate	4.6%	1.4%	0.9%	0.7%	1.4%	0.9%
Rental vacancy rate	4.8%	-0.4%	3.0%	1.5%	3.1%	2.0%
Overall Vacancy Rate	5.3%	0.6%	1.9%	0.1%	2.2%	0.6%

Source: 1990 & 2000 US Census

Nativity

Overview. Tables 17, 18, and 19 describe nativity and place of birth for residents of Woodburn, Wilsonville, Salem, Portland, Marion County, and Oregon as a whole from 1990 to 2000. Nativity is an important factor to look at in a housing needs analysis, as past and current population stability can be used to make assumptions regarding future population stability, as well as social and economic stability, over the next 20 years.

Comparison. In 1990, Woodburn had a much lower percentage of native population (as opposed to foreign born) than all the other comparators – 81% native population in Woodburn, compared to 92-96% in Wilsonville, Salem, Portland, Marion County, and Oregon. In 1990, 11% of Woodburn’s population had entered the United States in the previous 10 years, compared to 1-4% for the rest of the comparators. In 2000, only 65% of Woodburn’s population was “native”, while Portland and Marion County were at 87%, Salem at 88%, and Wilsonville and Oregon were at 92%. In 2000, 22% of Woodburn’s population entered the United States in the previous 10 years, while the rest of the comparators ranged from 4-7%.

Trend. All the comparators studied in this document decreased in native population as a percentage of the whole – Woodburn decreased by 17%, Wilsonville and Oregon by 4%, Portland by 5%, and Salem and Marion County by 6%. The overall trend was also a higher percentage of recent US immigrants – Woodburn’s population that entered the US over the previous 10 year period increased by 11%, while the other comparators rose by 2-4%.

Interpretation. Woodburn’s foreign-born population has been increasing at a much higher rate than Wilsonville, Salem, Portland, Marion County, and Oregon as a whole. Much of the increase is comprised of recent immigrants to the US. These recent immigrants bring with them a different culture and lifestyle – a diversity that is valued in Woodburn – that also includes such demographic impacts such as higher household sizes and lower educational levels (see discussions under Household Size and Education). Over the next 20 years, Woodburn intends to increase opportunities for education and employment, which should allow recent immigrants and their growing children an opportunity to adapt to a lifestyle that is more akin to native and long-term Oregon residents.

Recent substantial nativity changes and trends in Woodburn residents indicate a population currently in flux – we expect the large scale immigration will slow as a percentage of population growth over the next 20 years, which should bring such demographic statistics as household size and vacancy rates back toward Marion County norms.

Table 17: Nativity and Place of Birth, 1990

Nativity and Place of Birth 1990	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Native population	81%	96%	94%	92%	94%	95%
Foreign-born population	19%	4%	6%	8%	6%	5%
Entered the U.S. 1980 to 1990	11%	1%	3%	4%	3%	2%

Source: 1990 US Census

Table 18: Nativity and Place of Birth, 2000

Nativity and Place of Birth 2000	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Native	65%	92%	88%	87%	87%	92%
Foreign born	35%	8%	12%	13%	13%	8%
Entered 1990 to March 2000	22%	4%	6%	7%	7%	4%

Source: 2000 US Census

Table 19: Nativity and Place of Birth Trends 1990-2000

Nativity and Place of Birth Trend 1990-2000	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Native population	-17%	-4%	-6%	-5%	-6%	-4%
Foreign-born population	17%	4%	6%	5%	6%	4%
Entered the U.S. Previous 10 Years	11%	3%	3%	3%	4%	2%

Source: 1990 & 2000 US Census

Income

Overview. Tables 20, 21, and 22 depict household income for Woodburn, Wilsonville, Salem, Portland, Marion County, and Oregon in 1989 and 1999. Goal 10 requires local governments to provide affordable housing opportunities for existing and future residents. This is done by comparing household income with housing costs, to determine the type and density of housing types that are needed in a community.

Comparison. In 1990, Woodburn had a substantially lower median household income than the other comparators - \$22,253, compared to \$38,456 for Wilsonville, \$25,236 for Salem, \$25,592 for Portland, \$26,876 for Marion County, and \$27,250 for Oregon as a whole. The breakdown of income brackets for 1989 shows that 57% of Woodburn’s households were earning incomes of less than \$25,000 at that time. The comparators had substantially lower percentages of householders in the lower income ranges – 29% in Wilsonville, 50% in Salem, 50% in Portland, 46% in Marion County, and 46% in Oregon as a whole.

In 1999, median household incomes in Woodburn rose to \$33,722, compared with \$52,515 in Wilsonville, \$38,881 in Salem, \$40,146 in Portland, \$40,314 in Marion County, and \$40,916 in Oregon. Woodburn maintained the highest percentage of households earning under

\$25,000, with 33% - compared to 19% in Wilsonville, 30% in Salem, 29% in Portland, 27% in Marion County, and 28% in Oregon as a whole.

Trend. Median household income in Woodburn grew by 152% between 1989 and 1999, compared with 137% for Wilsonville, 154% for Salem, 157% for Portland, and 150% for Marion County and Oregon as a whole. The increase in median household incomes was generally on pace with income growth in the comparators, but Woodburn started at a much lower base, so incomes rose less in actual dollars for Woodburn residents than for all other comparators.

Interpretation. Household incomes in Woodburn are low, compared with Wilsonville, Salem, Portland, Marion County, and Oregon as a whole. Woodburn has kept pace with income growth trends (from a percentage standpoint), but started with and maintains a lower base income. Discussion of housing costs to income levels in the Owner Costs and Rental Costs sections will allow us to determine if housing costs are out of range for Woodburn residents.

Of note, Woodburn's Economic Opportunities Analysis (ECONorthwest, 2000) prescribes specific steps for Woodburn to increase education and household income by allowing for and encouraging higher-paying jobs to locate in Woodburn. The economic effects of achieving the program outlined in the EOA were described in the Woodburn Occupation / Wage Forecast (ECONorthwest, 2003). Woodburn residents are forecast to shift into higher income ranges, due mainly to development of more manufacturing job opportunities as opposed to minimum-wage retail. To the extent that Woodburn's economic strategy is successful, the greater income should lead to greater demand for traditional single-family housing ownership and its potential for wealth accumulation, and relatively less demand for rental housing.

Table 20: Income Comparison, 1989

Household Income 1989	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Less than \$5,000	7%	2%	6%	7%	5%	6%
\$5,000 to \$9,999	12%	6%	11%	11%	9%	10%
\$10,000 to \$14,999	12%	7%	11%	11%	10%	10%
\$15,000 to \$24,999	26%	14%	22%	21%	22%	20%
\$25,000 to \$34,999	20%	15%	17%	17%	18%	18%
\$35,000 to \$49,999	15%	23%	17%	16%	19%	18%
\$50,000 to \$74,999	8%	21%	12%	11%	12%	13%
\$75,000 to \$99,999	1%	4%	3%	3%	3%	3%
\$100,000 to \$149,999	0%	4%	1%	2%	1%	2%
\$150,000 or more	0%	3%	1%	1%	1%	1%
Median household income (dollars)	22,253	38,456	25,236	25,592	26,876	27,250

Source: 1990 US Census

Table 21: Income Comparison, 1999

Household Income 1999	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Less than \$10,000	9%	4%	9%	10%	8%	9%
\$10,000 to \$14,999	8%	4%	7%	6%	6%	6%
\$15,000 to \$24,999	16%	11%	14%	13%	13%	13%
\$25,000 to \$34,999	20%	13%	15%	14%	15%	14%
\$35,000 to \$49,999	19%	16%	18%	17%	19%	18%
\$50,000 to \$74,999	18%	20%	20%	20%	21%	20%
\$75,000 to \$99,999	6%	15%	9%	9%	9%	10%
\$100,000 to \$149,999	3%	12%	5%	7%	5%	7%
\$150,000 to \$199,999	1%	3%	1%	2%	1%	2%
\$200,000 or more	0%	3%	1%	2%	1%	2%
Median household income (dollars)	33,722	52,515	38,881	40,146	40,314	40,916

Source: 2000 US Census

Table 22: Income Comparison Trends, 1989-1999

Household Income Trend 1989-1999	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Less than \$10,000	2%	2%	3%	3%	3%	3%
\$10,000 to \$14,999	-3%	-2%	-4%	-5%	-3%	-3%
\$15,000 to \$24,999	3%	4%	3%	3%	3%	3%
\$25,000 to \$34,999	-6%	-2%	-7%	-7%	-7%	-6%
\$35,000 to \$49,999	-1%	1%	1%	0%	0%	0%
\$50,000 to \$74,999	4%	-2%	3%	3%	3%	2%
\$75,000 to \$99,999	-2%	-6%	-3%	-2%	-2%	-3%
\$100,000 to \$149,999	3%	7%	3%	3%	3%	3%
\$150,000 to \$199,999	0%	-1%	0%	0%	0%	0%
\$200,000 or more	0%	0%	1%	1%	1%	1%
Median household income	152%	137%	154%	157%	150%	150%

Source: 1990 & 2000 US Census

Employment

Overview. Tables 23, 24, and 25 below depict the percentage of working age (16 and older) population in the labor force, and levels of unemployment for Woodburn, Wilsonville, Salem, Portland, Marion County, and Oregon. Labor force statistics can aid in a Land Needs Analysis by helping to describe both the economic status of a community and age-related factors, as most persons age 16 and above and not in the labor force are either involved in education (high school / college) or retired.

Comparison. In 1990, only 50% of Woodburn residents age 16 and above were in the labor force, compared with 69% in Wilsonville, 59% in Salem, 67% in Portland, 62% in Marion County, and 64% in Oregon as a whole. Woodburn in 1990 had a fairly low unemployment

rate, at 3%, compared with 4% for Salem, Portland, Marion County, and Oregon as a whole. Wilsonville had a lower unemployment rate in 1990 of 2%.

In 2000, 56% of Woodburn residents age 16 and above were in the labor force, compared with 72% in Wilsonville, 63% in Salem, 69% in Portland, 64% in Marion County, and 65% in Oregon as a whole. Woodburn's unemployment rate was fairly standard among the comparators, at 5% - the same as Salem, Portland, and Marion County, but slightly higher than Wilsonville (3%) and Oregon (4%).

Trend. From 1990 to 2000, Woodburn had the highest increase of population in the labor force of any comparator, with a 5% shift – substantially higher than Wilsonville and Salem (3%), Portland (2%), or Marion County and Oregon (1%). Unfortunately, Woodburn's unemployment rate also increased more than any comparator during this time period – an upwards shift of 2% - compared to 1% in Wilsonville, Salem, and Marion County, and 0% in Portland and Oregon as a whole.

Interpretation. Woodburn's labor force has grown at a much higher rate than any of the comparators. Although Woodburn has a high, but declining, percentage of retired residents, the working age population in Woodburn is growing younger, so the labor force is growing and expected to grow further. These young workers need jobs near where they live, so Woodburn has made the policy choice to increase job opportunities in its UGB, consistent with the Woodburn Economic Opportunities Analysis. Otherwise, Woodburn's increasing labor force will face three unacceptable options: (a) join the unemployment roles, (b) commute to jobs outside of Woodburn, or (c) leave the area. Because Woodburn is taking active steps to increase local employment opportunities, Woodburn residents are expected to enjoy increases in income that will allow for better choice in housing options.

Table 23: Labor Force Status, 1990

Labor Force Status 1990	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
In labor force	50%	69%	59%	67%	62%	64%
Unemployed	3%	2%	4%	4%	4%	4%
Not in labor force	50%	31%	41%	33%	38%	36%

Source: 1990 US Census

Table 24: Labor Force Status, 2000

Labor Force Status 2000	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
In labor force	56%	72%	63%	69%	64%	65%
Unemployed	5%	3%	5%	5%	5%	4%
Not in labor force	44%	28%	37%	31%	36%	35%

Source: 2000 US Census

Table 25: Labor Force Status Trends, 1990-2000

Labor Force Trend 1990-2000	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
In labor force	5%	3%	3%	2%	1%	1%
Unemployed	2%	1%	1%	0%	1%	0%
Not in labor force	-5%	-3%	-3%	-2%	-1%	-1%

Source: 1990 & 2000 US Census

Housing Ownership Costs in Relation to Income

Overview. Tables 26, 27, and 28 depict total owner costs as a percentage of monthly household income for Woodburn, Wilsonville, Salem, Portland, Marion County, and Oregon. The relation of owner costs to income is very important in a housing needs analysis, as it indicates the affordability of the homeownership housing mix in a community.

Comparison. In 1989, 59% of Woodburn's homeowner households were paying less than 20% of their income on housing. This was less than the comparators, as 51% of households in Wilsonville and 56% of households in Salem, Portland, Marion County, and Oregon could say the same. The percentage of households paying 30% or more of their household income on homeownership was 17% in Woodburn in 1989. This also was lower than all comparators – Wilsonville was at 20%, Portland at 19%, and Salem, Marion County, and Oregon were at 18%. In 1999, 52% of Woodburn households had home ownership costs that amounted to less than 20% of total household income. This was still higher than all the comparators, which ranged from 46-49%. However, 28% of Woodburn's owner households were paying 30% or more of their income, compared to 23% in Wilsonville, 26% in Salem, 28% in Portland, and 25% in Marion County and Oregon.

Trend. From 1989 to 1999, Woodburn's housing ownership costs have increased in relation to household income, as have all the comparators. Woodburn started at a lower base in 1989, so the percentage increases are more substantial than in the comparators. The percentage of Woodburn homeowners paying 30% or more of their household income on housing increased by 11%, compared to 3% in Wilsonville, 8% in Salem, 9% in Portland, and 7% in Marion County and Oregon as a whole.

Interpretation. The high percentage of Woodburn homeowners in the highest cost bracket indicates a need for either lower cost homeownership options or an increase in household income. Woodburn's demographics are undoubtedly responsible for some of the relatively high costs. As described in the sections related to Age, Household Size, and Income, Woodburn grew rapidly from 1990 to 2000, and much of the growth consisted of young families. A high proportion of young homeowners at the beginning of their mortgages will tend to lead to higher ownership costs. As the households and the mortgages mature, and better employment options are available, housing costs in relation to household income will naturally decline.

Table 26: Owner Costs, 1989

Monthly Owner Costs as Percentage of Household Income 1989	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Less than 20 percent	59%	51%	56%	56%	56%	56%
20 to 24 percent	13%	16%	16%	15%	16%	15%
25 to 29 percent	9%	13%	10%	9%	10%	10%
30 to 34 percent	3%	6%	5%	6%	5%	6%
35 percent or more	14%	14%	13%	13%	13%	12%

Source: 1990 US Census

Table 27: Owner Costs, 1999

Monthly Owner Costs as Percentage of Household Income 1999	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Less than 20 percent	52%	49%	46%	46%	48%	49%
20 to 24 percent	12%	16%	17%	15%	16%	15%
25 to 29 percent	7%	12%	12%	11%	11%	11%
30 to 34 percent	6%	9%	8%	8%	7%	7%
35 percent or more	22%	14%	18%	20%	18%	18%

Source: 2000 US Census

Table 28: Owner Costs Trends, 1989-1999

Monthly Owner Costs as Percentage of Household Income Trends 1989-1999	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Less than 20 percent	-7%	-2%	-9%	-11%	-8%	-7%
20 to 24 percent	-1%	0%	1%	0%	1%	0%
25 to 29 percent	-1%	-2%	2%	2%	1%	1%
30 to 34 percent	3%	3%	3%	2%	2%	2%
35 percent or more	8%	0%	5%	7%	5%	5%

Source: 1990 & 2000 US Census

Housing Rental Costs in Relation to Income

Overview. Tables 29, 30, and 31 depict gross monthly rent as a percentage of monthly household income for Woodburn, Wilsonville, Salem, Portland, Marion County, and Oregon. This is important in determining housing needs, as it portrays the affordability of the rental housing mix in comparison to household income for a community.

Comparison. In 1989, Woodburn rental housing was not very affordable to Woodburn residents – 26% of Woodburn renter households were spending less than 20% of their income on housing, which was less than Wilsonville, Salem, Portland, Marion County, and Oregon as a whole (32-34%). On the other side of the scale, 34% of Woodburn rental

households were paying over 35% of their income on housing – compared to 21% in Wilsonville, 31% in Salem and Portland, and 30% in Marion County and Oregon. In 1999, 30% of Woodburn renter households were spending less than 20% of their income on housing, which was fairly close to the comparators – Portland and Oregon as a whole were lower (28% and 29%), while Marion County, Salem, and Wilsonville were higher (31%, 32%, and 36% respectively). Woodburn retained a slightly higher percentage of renter households paying over 35% of their income on housing – 34% compared with 29% for Wilsonville, 31% for Marion County, 32% for Salem and Oregon as a whole, and 33% for Portland.

Trend. Woodburn rental costs as compared to income remained fairly constant from 1989 to 1999. The percentage of Woodburn renters paying the lowest amount (under 20%) of their income on rent grew from 26% to 30%. Salem remained stable. The other comparators generally increased rental costs in relation to household income – Wilsonville’s percentage of renters paying 35% or more of household income on housing increased by 8%, Marion County by 1%, and Portland and Oregon as a whole by 2%.

Interpretation. Compared to the listed comparators, Woodburn renters pay a slightly higher percentage of household income for their housing costs. However, as rental housing trended toward less affordable among the other comparators, Woodburn remained fairly stable from 1989-1999. Considering the demographic changes described in the Age, Income, Labor Force, and Nativity sections – a younger population of recent immigrants, with relatively high unemployment – that Woodburn did not lose rental affordability from 1989-1999 indicates a success of the housing mix provided. The increase in rental units and choice described in the Vacancy Rates section has allowed the market to provide relatively affordable rental units to Woodburn’s population growth. Woodburn’s economic strategies, consistent with the Woodburn Economic Opportunities Analysis, should increase household incomes, thereby increasing rental affordability further in Woodburn.

Table 29: Rental Costs, 1989

Gross Rent as Percent of Household Income 1989	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Less than 20 percent	26%	34%	32%	32%	33%	32%
20 to 24 percent	16%	22%	14%	15%	14%	14%
25 to 29 percent	13%	13%	12%	11%	12%	11%
30 to 34 percent	8%	8%	8%	8%	7%	8%
35 percent or more	34%	21%	31%	31%	30%	30%

Source: 1990 US Census

Table 30: Rental Costs, 1999

Percent of Households in 1999	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Less than 20 percent	30%	36%	32%	28%	31%	29%
20 to 24 percent	13%	15%	14%	14%	15%	14%
25 to 29 percent	11%	10%	12%	13%	11%	12%
30 to 34 percent	8%	8%	7%	8%	7%	8%
35 percent or more	34%	29%	32%	33%	31%	32%

Source: 2000 US Census

Table 31: Rental Costs Trends, 1989-1999

Percent of Households in 1999	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Less than 20 percent	4%	2%	0%	-4%	-2%	-3%
20 to 24 percent	-3%	-7%	-1%	-1%	1%	-1%
25 to 29 percent	-2%	-3%	0%	1%	-1%	0%
30 to 34 percent	0%	0%	0%	0%	0%	0%
35 percent or more	0%	8%	0%	2%	1%	2%

Source: 1990 & 2000 US Census

Actual Housing Costs

Overview. Tables 32, 33, and 34 depict median rent and home prices for Woodburn, Wilsonville, Salem, Portland, Marion County, and Oregon. These raw numbers are also important to look at for a Housing Needs Analysis, as they depict real (not purely relative) housing cost differences between communities.

Comparison. In 1990, Woodburn’s median rent was fairly midrange at \$402 per month – compared to \$494 in Wilsonville, \$387 in Salem, \$397 in Portland, \$401 in Marion County, and \$408 for Oregon as a whole. Median home value in Woodburn for 1990 was comparatively quite low at \$51,900 – compared to \$121,400 in Wilsonville, \$60,300 in Salem, \$59,200 in Portland, \$59,900 in Marion County, and \$67,100 for the state of Oregon. In 2000, Woodburn’s median rent was still fairly midrange at \$599 per month – compared with \$746 in Wilsonville, \$560 in Salem, \$622 in Portland, \$574 in Marion County, and \$620 for Oregon. Woodburn’s median home price remained the lowest among the comparators at \$114,800 – compared with \$227,900 in Wilsonville, \$131,100 in Salem, \$154,900 in Portland, \$132,600 in Marion County, and \$152,100 in Oregon as a whole.

Trend. Woodburn’s median rent increased by nearly \$200 from 1990-2000. This was higher than Salem or Marion County (increases of \$173), but lower than Wilsonville (\$252), Portland (\$225), and Oregon (\$212). Home prices in Woodburn, already the lowest among the comparators in 1990, increased by the lowest amount from 1990-2000. Home prices increased only about \$63,000 in Woodburn, compared with about \$107,000 in Wilsonville, \$71,000 in Salem, \$96,000 in Portland, \$73,000 in Marion County, and \$85,000 in Oregon as a whole.

Interpretation. Median rent in Woodburn, while lower than several comparators, including Oregon as a whole, is slightly higher than median rents in Salem and Marion County, its two closest comparators. This seems incongruous at first glance, considering the lower income levels of Woodburn (see section on Income in this document). However, there are two other factors that are likely to influence median rent in Woodburn – the amount of new rental housing, and household size. Woodburn has increased its supply of rental housing recently (see sections on Vacancy Rate as well as Actual Development). New housing is usually more expensive than older housing, and logically will lead to higher rents unless there is a substantial oversupply of rental units. Woodburn also has the largest household size among the comparators, and most of the household growth is in the form of families (see sections on Household Size and Households by Family Status), which leads to a higher need for larger rental units (2-3 bedroom rather than 1 bedroom). Larger rental units logically cost more than smaller rental units. These two factors may be skewing the rent upward in Woodburn. As household sizes begin to decline in Woodburn over the next 20 years (see section on Household Size), and the recently developed apartments become older, median rent can be expected to drop relative to comparator communities.

Median home value in Woodburn has been low and continues to be comparatively far lower than other communities in this analysis, as well as the county and state. This means that Woodburn is providing relatively affordable housing. Woodburn residents can expect to pay less for a house than in most other places around the state. In addition to planning for economic stimuli as indicated in the Economic Opportunities Analysis, Woodburn should continue to encourage low cost housing options.

Table 32: Housing Costs, 1990

Housing Costs 1990	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Median Rent (dollars)	\$ 402	\$ 494	\$ 387	\$ 397	\$ 401	\$ 408
Median Home Value (dollars)	\$ 51,900	\$ 121,400	\$ 60,300	\$ 59,200	\$ 59,900	\$ 67,100

Source: 1990 US Census

Table 33: Housing Costs, 2000

Housing Costs 2000	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Median Rent (dollars)	\$ 599	\$ 746	\$ 560	\$ 622	\$ 574	\$ 620
Median Home Value (dollars)	\$ 114,800	\$ 227,900	\$131,100	\$154,900	\$ 132,600	\$152,100

Source: 2000 US Census

Table 34: Housing Costs Trends, 1990-2000

Housing Costs Trends 1990-2000	Woodburn	Wilsonville	Salem	Portland	Marion County	Oregon
Median Rent (dollars)	\$ 197	\$ 252	\$ 173	\$ 225	\$ 173	\$ 212
Median Home Value (dollars)	\$ 62,900	\$ 106,500	\$ 70,800	\$ 95,700	\$ 72,700	\$ 85,000

Source: 1990 & 2000 US Census

Housing Need Model

The ODCED has developed a Residential Land Needs model that bases housing needs on projected income by age cohort, related to assumptions of types and cost for various housing types over the next 20 years. As described in the brief summary below, it is a complex and sophisticated model:

The Housing/Land Needs Models utilize Excel spreadsheets containing components such as templates for inputting specific data that is relevant to a community's housing and/or land needs and graphs for displaying model results. There are two models - one for housing need only and one for housing and the land needed to support that housing - with three versions of each model using parameters appropriate to urban, college or resort (U), medium size rural (M), or small rural (S) communities.

The models and their associated templates are designed to use inputted data to calculate, analyze, and display the housing and/or land needs for each community. These files have up to 21 worksheets containing 19 templates and 11 graphs that perform different functions in the needs analysis.

The model requires a large number of user assumptions to complete many of the 21 worksheets. These assumptions range from those that are fairly standard in a needs analysis (e.g. projected population, vacancy rates, household size) to some that may be unique to the model (e.g. the user must determine what percent of each of five rental housing types will be in each of six rent ranges for the next 20 years). One of the most difficult aspects of the model is that it uses different rental and price ranges than the Census, so the user either has to make assumptions regarding splits in price and rental ranges, or must perform a complete rental survey (including single family house rentals) combined with a full analysis of tax assessor price data. Since we did not have a budget to do a complete rental survey as part of this process, the inputs we used could not be backed by on-ground data. A full copy of the Residential Land Needs Model is provided as Attachment A to this document.

Winterbrook ran the model using the tentative coordinated population projection of 34,919, a 20-year timeframe, household size of 2.9, and approximately 100 other assumptions related to housing type, rental status, and price/rent levels (See Attachment A). Projected income by age cohort inputs for the Model were provided by ECONorthwest. The Model produced the result shown on Table 35. Approximately 385 net acres are needed for Low Density Single Family (LDSF), 116 for Medium Density Single Family (MDSF), 94 for High Density Single Family (HDSF), 15 for Manufactured Dwelling Park (MDP), 27 for Low Density Multi-Family (LDMF), 57 for Medium Density Multi-Family (MDMF), 14 for High Density Multi-Family (HDMF), and 6 for Mixed-Use (MU). The total acreage needed to serve the 2020 dwelling unit growth of approximately 5,000 units was indicated to be about 714 net acres. When compared with existing housing supply, the total *additional* acreage needed for 2020 was indicated to be about 339 acres, as shown on Table 36.⁹

⁹ Note that this does not include land for public uses such as parks and schools, as it is purely dwelling units.

Table 35: 2020 Needed Net Acres for Housing

	LDSE	MDSE	HDSE	MDF	LDMF	MDMF	HDMF	MU	Total
Acres Needed	385.1	115.8	94.0	15.4	27.4	56.7	14.0	5.5	713.7

Source: The Housing/Land Needs Model; Winterbrook Planning

Table 36: 2020 Additional Net Acres Needed for Housing

	LDSE	MDSE	HDSE	MDF	LDMF	MDMF	HDMF	MU	Total
New Acres Needed	102.1	114.8	94.0	15.4	27.4	(34.3)	14.0	5.5	338.7

Source: The Housing/Land Needs Model; Winterbrook Planning

Winterbrook used the Housing Needs Model results as a base and a guide for this Housing Needs Analysis. Discussions with Woodburn staff, review of the Woodburn Economic Opportunities Analysis, and demographic factors analyzed above were also factors in the Housing Needs Conclusions we reached below.

Housing Need Conclusions

Woodburn has two major cohorts: a rapidly growing young population that will continue to grow and mature over the next 20 years, and an elder population that should remain fairly stable. Currently, Woodburn is doing fairly well, but can improve in providing opportunities for affordable housing. Part of the affordable housing “problem” is that the new, young population lacks the financial resources of established families.

A major part of Woodburn’s economic opportunities analysis is to take advantage of its growing workforce by offering the opportunity for jobs to locate in the area. If Woodburn is successful in attracting these jobs, the buying power of residents will improve in relation to housing needs. So, while Woodburn can benefit from a wider range of housing types, and should allow the opportunity for multi-family and small lot single-family residences to develop, it is important to continue to supply traditional single-family housing as well.

Currently, Woodburn has two residential plan designations: Low Density Residential and High Density Residential. These designations are implemented by three zones: Residential Single Family, Retirement Community Single Family Residential, and Medium Density Residential.

In order to better represent and implement the housing types indicated as needed by the Land Needs Model and by our demographic analysis, we created two new plan designation overlays: a Nodal overlay and Vertical Mixed Use overlay. The nodal overlay would be applied to Single Family Residential, producing Nodal Low Density Residential (Nodal LDR) or Medium Density Residential, producing Nodal Medium Density Residential (Nodal MDR). The Vertical Mixed Use (VMU) overlay would be applied to downtown commercial areas. The two original plan designations, plus the overlays produce five distinct plan areas:

- Low Density Residential: This plan designation allows stick-built single-family homes, manufactured dwellings (not parks), and some duplexes. Approximately 30% of new

dwelling units would fall into this designation. *Capacity of residential exceptions areas adjacent to the 2002 Woodburn UGB totaling 295 units was subtracted from this need.*

- **Nodal Low Density Residential:** This overlay would allow smaller lot single family homes, zero lot line single family dwellings, and manufactured homes in Low Density Residential areas. Approximately 30% of new dwelling units would fall into this designation.
- **Medium Density Residential:** This plan designation allows duplexes, manufactured dwelling parks, and medium density multi-family dwellings. Approximately 20% of new dwelling units would fall into this designation.
- **Nodal Medium Density Residential:** This overlay would allow slightly higher densities than MDR, and would allow condominiums, townhouses, and rowhouses. Approximately 20% of new dwelling units would fall into this designation.
- **Vertical Mixed Use:** Housing is allowed above retail in Woodburn’s downtown commercial area and the proposed nodal commercial area. Approximately 1% of new dwelling units would fall into this category.¹⁰

As shown in Table 37 below, this proposed implementation of the new Nodal overlays results in a residential land need of 527 net acres through 2020 – about 150 net acres less than would be needed if actual development trends were extended without measures (as shown in Table 8), and about 180 net acres less than the Housing Needs Model indicated (as shown in Table 35).

Table 37: Residential Land Needs

Plan	Net Density	Percent	DU	Net Acre Need
LDR	5.5	30.0%	1195	217
Nodal LDR	8	30.0%	1490	186
MDR	14	19.5%	969	69
Nodal MDR	18	19.5%	969	54
VMU	16	1%	50	0
Total	8.9	100%	4673	527

Source: Winterbrook

Measures

Table 38 provides more detail on the proposed distribution of housing by type and comprehensive plan designation, with projected net density. In order to achieve the densities projected for each housing type, amendments to the Woodburn Comprehensive Plan and Development Code are required. Thus, Woodburn will need to adopt “measures” to increase density and provide for more affordable housing, as proscribed by ORS 197.296. These measures are addressed in detail in the Comprehensive Plan and Code Amendments proposed in the 2005 Plan, and briefly outlined as follows:

¹⁰ Over 100% due to rounding.

- **Plan for higher density** – Woodburn planned for new development through 2020 to come in at an overall density of 8.3-8.9 dwelling units per net buildable acre. This is significantly higher than the actual density of about 7.3 dwelling units per net buildable acre developed between 1988 and 2002.
- **Multi-Family Mix** – Woodburn planned for a ratio of 65% single-family, manufactured home, or attached single family (with nearly 50% of the single-family as “small lot” single-family) and 35% duplex or multifamily for new development in Woodburn through 2020.
- **Modify Plan and Zones** – Woodburn created two new overlay designations, Nodal and Vertical Mixed Use, in order to better fit housing type needs and allow for higher density in mixed-use node areas. We also modified the small lot single-family zone to apply to more than just the “Retirement Community” and created a new high density residential zone.
- **Mixed-Use Node** – Woodburn has designated a nodal development area, in the southwest portion of Woodburn near Parr Road. This area will have a mix of multi-family, small lot single-family, and rowhouses, as well as a small neighborhood commercial center and a location fairly near new industrial jobs.
- **Minimum Density Standards** – Woodburn has incorporated minimum density standards for new subdivisions and planned developments in each of its residential zones. This standard is designed to achieve approximately 80% of maximum permitted densities.

Table 38: Housing Need by Type and Density Table and Explanation

Housing Type	Number of New Units	Percentage of New Units	Projected Net Density	Woodburn Plan District
LDR and MH (Standard Lot)	1378	29%	5.5	SFR *
NodalSF (Small Lot)	1426	30%	8	SFR Nodal *
Duplex	48	1%	8	SFR
Duplex	48	1%	8	RM *
MH in MHP	190	4%	8	RM
Attached Single Family	95	2%	12	RM / Nodal *
Multi-Family	808	17%	14	RM
Multi-Family	618	13%	18	RM / Nodal *
Multi-Family	24	0.50%	16	VMU *
Multi-Family	24	0.50%	16	CN / Nodal *
Totals / Percentages / Cumulative Density	4753	100%	8.4	

* Indicates measures needed.

DETERMINE PUBLIC AND SEMI-PUBLIC RESIDENTIAL LAND NEEDS

Public and semi-public facilities such as schools, hospitals, churches, government buildings, and parks will expand as population increases. Such lands are necessary to address Goal 14, Factor 2 “livability” requirements.¹¹ Such uses typically locate on land designated for residential use. We have analyzed such need in conformance with ORS 197.296(4)(a).

Public and semi-public land needs are shown on Table 39 below. Park standards described in the 1999 Woodburn Parks and Recreation Comprehensive Plan Update were used to determine the need for buildable and unbuildable (natural area parks) land to accommodate parks and schools.

Summary of Public and Semi-Public Buildable Land Needs Projection

Methods

- **Schools** – The Council used the ratio of developed school land to population in the 1999 *Woodburn Parks and Recreation Comprehensive Plan Update*, about 5 acres per 1,000 residents, and extended that ratio to the Year 2020 Woodburn population to determine land needed for schools. Woodburn School District reviewed our projection and determined that Woodburn needed approximately 48 additional acres beyond our projection to meet school needs through 2020.¹² Woodburn currently has about 115 acres of land for schools, and needs approximately 223 acres by 2023. This leaves an unmet need of 108 acres for schools to accommodate a new high school, a new middle school and two new elementary schools.
- **Parks** – Winterbrook used the 1999 *Woodburn Parks and Recreation Comprehensive Plan Update* to project park needs through 2020. The 1999 Update recommended a ratio of 7 acres per 1000 population to project need for neighborhood and community parks. The Council took a 2020 population of 34,919, applied the ratio, and then subtracted existing park lands to determine needed park acreage. The Parks Plan indicates that some of Woodburn’s park needs will be met on school lands. The Council assumed 50% of all needed 2020 school lands would also serve to meet park needs, and added that to the parks supply. Woodburn currently has about 87 acres of parks and recreational land in use (plus about an additional 112 acres of 2020 school lands), and needs about 262 acres total to meet the recommended ratio. This leaves an unmet need for about 63 acres of park lands.
- **Institutional** – Woodburn currently has 500 residents who live in “institutions”, according to the 2000 US Census, and has had no additional institutional development from 2000-2002. The Council applied the existing ratio to a projected 2020 population of 34,919, to determine an institutional population growth of approximately 337 through

¹¹ Goal 14, Factors 1 and 2 read as follows:

1) *Demonstrated need to accommodate long-range urban population growth requirements consistent with LCDC Goals;*

2) *Need for housing, employment opportunities, and livability.*

¹² August 30, 2004 letter from Woodburn School District. The District has a 20-year planning horizon. In order for the second new high school to be operational by 2023, the land will need to be purchased in or before 2020.

2020. The Council applied a ratio of 30 residents per net acre (the maximum allowed under current zoning), which translated to an 11-acre need in this category.

- **Religious** – The Council applied a ratio of 3 acres per 1,000 population growth for religious uses. The 2002-2020 population growth forecast of 14,059 translated to a need for approximately 28 acres for religious use.
- **Natural Areas** - The Council put protected greenways and wildlife corridors into this category. The 1999 Woodburn Parks and Recreation Comprehensive Plan Update did not project a need for natural areas. Since these uses most often occur on constrained (unbuildable) land, the Council did not identify a separate buildable land need for natural areas.
- **Government** – The Council assumed that public and government employment growth would be accommodated through intensification of existing government employment areas. Projected government employment growth through 2020 is 252 employees. Using similar employee/acre ratio as commercial employment would yield a land need of slightly less than 13 acres. Since this need is assumed to be accommodated in existing government employment areas, no additional residential land need results from government land need.

Supply of public land was determined in Technical Report 1, Buildable Lands Inventory. Since public/semi-public uses typically locate on residential land, Woodburn needs approximately 210 additional net buildable acres of residential land to meet its 2020 Public and Semi-Public Land Needs.

Table 39: Year 2020, Public and Semi-Public Land Needs

Type	Supply	Need	Difference
Schools Net Acres	115	223	-108
Parks Acres	199	262	-63
Institutional Net Acres	0	11	-11
Religious Net Acres	0	28	-28
Natural Areas Acres*	129	92	37
Government Net Acres*	5	13	-8
Total Net Buildable Residential Deficit			-210

Source: Woodburn Parks and Recreation Comprehensive Plan Update; 2000 US Census; Winterbrook Planning

* These acreages are not counted toward total residential deficit.

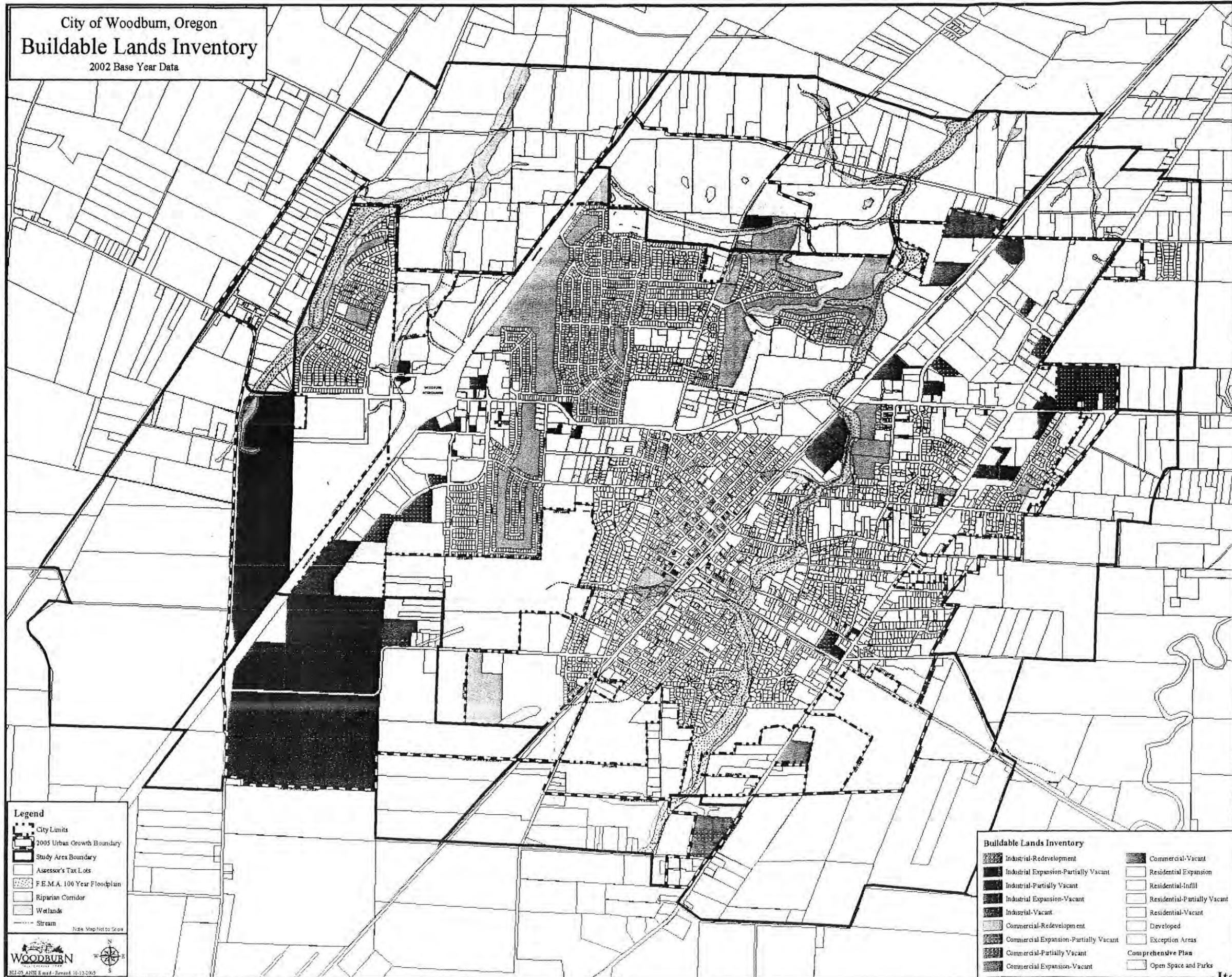
Based on Woodburn’s plans, and actual ratios compared to population growth, Woodburn will need about 108 net buildable acres for schools, about 63 acres for parks, 11 acres for institutional uses, and about 28 acres for religious uses between 2000 and 2020. Since parks, schools, institutional uses, churches, fire stations and similar public/semi-public uses typically require a location in a residential zoning district, such public and semi-public needs add to the demand for vacant buildable residential land within Woodburn’s Year 2020 UGB.

Residential and Public / Semi-Public Land Needs Conclusions

Table 6 shows a comparison of residential supply (dwelling unit capacity) versus dwelling unit demand through 2020. Public/Semi-Public lands are included in the residential need totals as described in the Public/Semi-Public section in this document. Dwelling unit capacity was determined in Technical Report 1, Buildable Lands Inventory. Woodburn requires approximately 210 additional net buildable acres of Residential land to meet its 2020 housing and public/semi-public land needs for “housing and livability”.

Item No. 10
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City of Woodburn, Oregon
Buildable Lands Inventory
 2002 Base Year Data



Legend

- City Limits
- 2005 Urban Growth Boundary
- Study Area Boundary
- Assessor's Tax Lots
- F.E.M.A. 100 Year Floodplain
- Riparian Corridor
- Wetlands
- Stream

Note: Map Not to Scale

WOODBURN
OREGON

Buildable Lands Inventory

Industrial-Redevelopment	Commercial-Vacant
Industrial-Expansion-Partially Vacant	Residential-Expansion
Industrial-Partially Vacant	Residential-Infill
Industrial-Expansion-Vacant	Residential-Partially Vacant
Industrial-Vacant	Residential-Vacant
Commercial-Redevelopment	Developed
Commercial-Expansion-Partially Vacant	Exception Areas
Commercial-Partially Vacant	Comprehensive Plan
Commercial-Expansion-Vacant	Open Space and Parks

0

0

0

EXHIBIT 4-G

4-G

TECHNICAL REPORT 3

**POTENTIAL UGB EXPANSION
AREA ANALYSIS NATURAL
RESOURCES INVENTORY**

DRAFT

TECHNICAL REPORT 3
POTENTIAL UGB EXPANSION AREA ANALYSIS
NATURAL RESOURCES INVENTORY

FOR POTENTIAL EXPANSION AREAS (SUBAREAS)
OUTSIDE THE WOODBURN URBAN GROWTH BOUNDARY

Prepared for:

CITY OF WOODBURN
270 Montgomery Street
Woodburn, OR 97071

Prepared by:

WINTERBROOK PLANNING
310 SW Fourth, Suite 1100
Portland, Oregon 97204



November 2002

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INTRODUCTION

The City of Woodburn may need to expand its UGB to meet long-term population and employment growth needs. This technical report addresses Task 5 of the City of Woodburn's revised Periodic Review Work Program and evaluates natural resource areas within the potential urban growth boundary study area. Technical Report 2.B addresses public facilities and transportation efficiency issues as they apply to the UGB study area.

This work was funded in part by an Land Conservation and Development Commission (LCDC) periodic review grant. To address Task 5 of this grant, the City contracted with Winterbrook Planning to prepare an inventory of potential expansion areas outside the UGB (see Study Area, below). This inventory considers the area (acreage) and distribution (by subarea) of:

- Goal 3 agricultural soils (Class I-IV soils, including high value farm land),
- Goal 5 natural resource areas (wetlands, stream corridors and wildlife habitat),
- Goal 7 hazard areas (floodplains), and
- Goal 2 exception areas (built and committed to non-resource uses).

This information will be useful in address Statewide Planning Goal 14 "locational factors" (Factors 5 – ESEE consequences, 6 – agricultural land preservation, and 7 – agricultural land compatibility) in assessing the relative values of each of eight subareas at the edge of the existing UGB. The inventory also is directly relevant to the Goal 2, Part II exceptions process (OAR Chapter 660, Division 04) and in establishing priorities for UGB expansion as set forth in ORS 197.298.

To address Statewide Planning Goal 2 (exceptions process), 3 (Agricultural Lands) and 14 (Locational Factors 6 and 7), Winterbrook focused first on agricultural soil classifications. Figure 1 shows area and distribution of Class I, II, III and IV soils for each subarea. Table 4 summarizes the results of this GIS analysis in tabular format.

To address Statewide Planning Goal 5 (Natural Resources), Goal 7 (Natural Hazards) and Goal 14 (Factor 5, economic, social, environmental and energy consequences), Winterbrook inventoried wetlands, stream corridors, floodplains, and wildlife habitat (for special status species) within the study area. This inventory determines the location, quantity and quality of Goal 5 resources (wetlands, streams, and habitats) and Goal 7 resources (floodplains) within each subarea, to provide a factual basis for the evaluation of Urban Growth Alternatives.

Finally, to determine the area of buildable land for each subarea outside the UGB, Winterbrook applied the same methods used within the Woodburn growth boundary. (See Technical Memorandum 1 - Buildable Lands Inventory (2002).) Goal 5 and 7 resources are considered constrained lands and are removed from the mapping of Goal 3 agricultural land resources. A fifth of an acre is removed for each single-family residence in rural residential areas. For partially developed land, industrial and commercial acreage is removed based on actual development area.

Table 1. Goal 3, 5 and 7 – Constrained Land Summary

Subarea	Size (acres)	Goal 5 (Natural Resources)			Goal 7 Floodplains	Total Constrained	Goal 3 (Agricultural Lands) ²				Developed ³ Exception Areas	Buildable Lands ⁴
		Vetlands	Streams	Species			Class I	II	III	IV		
1. Northwest	655	54.37	96.24	W/in streams	16.89	107.32	4	320	73	30	54.92	394.21
2. North	675	34.44	62.47	W/in streams	40.62	68.31	29	432	83	62	0	485.35
3. Northeast	330	6.93	14.95	W/in streams	0	15.12		135	27	10	57.84	205.63
4. East	343	3.20	18.49	W/in streams	0	19.22		296	14	12	0	259.02
5. Southeast	431	0	6.15	W/in streams	0	6.15		355	46	24	0	339.88
6. South	191	15.30	15.34	W/in streams	11.38	16.14		147	2	12	5.69	135.34
7. Southwest	506	0.87	0	0	0	0.87		361	124	19	0	404.18
8. West	755	4.43	14.09	W/in streams	0.26	14.41	40	567	52	81	0	592.47
Total Area	3886	119.54	227.73	227.73	69.15	247.54	73	2613	421	250	118.45	2816.08
% of Study Area	100%	3.1%	5.9%	5.9%	1.8%	6.4%	1.9%	67.2%	10.8%	6.4%	3%	72.5%

1. Adjusted for overlapping resource coverages.
2. Excludes Goal 5 and 7 constrained lands and exception areas.
3. Approximately 40% of exception areas are developed.
4. Land area less constrained and developed exception lands, less 20% (for roads and infrastructure); rights-of-way not excluded (data not yet available).

STUDY AREA AND SUBAREAS

The study area covers 3,886 acres and is comprised entirely of Class I through Class IV soils. Approximately 97 percent of non-exception area lands are classified as high value farmland. Exception areas total 296 acres and are located primarily in Subareas 1 and 3. Constrained Goal 5 and 7 resource lands total 248 acres and are located primarily along the Senecal and Mill Creek corridors, in Subareas 1 and 2, primarily on Class III and IV agricultural soils. Thus, the subareas with the lower quality agricultural soils tend to have the highest quality Goal 5 and 7 resource sites.

The study area is approximately one-half mile wide located outside of the existing UGB (see Figure 1). It was extended in certain locations to include clear boundaries (e.g., roads), contiguous exception areas, and whole tax lots (where practical).

The study area is divided into eight subareas based on transportation considerations (subareas usually comprise multiple transportation analysis zones or TAZs) and drainage basins. Major roads and railways form the primary divisions between the planning subareas. The subareas range in size from 191 to 755 acres, and have a combined size of 3,886 acres – or about six square miles. The subareas are ordered in a clockwise manner, beginning in the northwest portion of the study area with Subarea 1 (SA-1) and ending with Subarea 8 (SA-8) in the southwest portion. The location and size of each subarea is summarized in Table 2.

Table 2. Study Subarea Location and Size

Subarea	Location/boundaries	Size (acres)
SA-1. Northwest	Bounded to the east by Interstate 5 and the UGB, west by Oregon Electric Railway, south by Highway 214 (Newberg Hwy.), and north by a line approx. 1,000 feet north of and parallel to Crosby Road.	655
SA-2. North	Bounded to the west by Interstate 5, east by Union Pacific Railway and N. Front Street, south by the UGB, and north by a line approx. 1,000 feet north of and parallel to Crosby Road.	675
SA-3. Northeast	Bounded to the west by Union Pacific Railway and the UGB, east by the MacLaren School for Boys, north by Dimmick Road NE, and south by Highway 211 (Estacada Hwy).	330
SA-4. East	Bounded to the west by the UGB and Cooley Road, east by properties within ½ mile of the UGB (Pudding River plateau, reservoir), north by Dimmick Road NE, and south by Highway 214.	343
SA-5. Southeast	Bounded to the west by Highway 99E (Pacific Hwy) and the UGB, east by properties within ½ mile of the UGB (Pudding River plateau), north by Highway 214, and south by Geschwill Lane NE.	431
SA-6. South	Bounded to the east by Highway 99E (Pacific Hwy), west by Southern Pacific Railroad, north by the UGB, and south by Belle Passe Road.	191
SA-7. Southwest	Bounded to the east by Southern Pacific Railroad, west by Interstate 5, north by the UGB, and south by Belle Passe Road (extension).	506
SA-8. West	Bounded to the east by Interstate 5 and the UGB, west by Oregon Electric Railway, north by Highway 214 (Newberg Hwy.), and south by property south of Parr Road NE.	755
TOTAL		3886

EXISTING LAND USE

Land uses within the study area are dominated by agriculture, primarily row crops with occasional nursery production, vineyards and pastures. Older residential areas are scattered throughout the study area, particularly near Senecal Creek (SA-1) to the northwest and areas to the northeast and east (SA-3 and SA-4). One significant institutional use, the MacLaren School of Boys, is located in SA-3. Open space uses include a golf course (SA-2) and a cemetery (SA-6).

DEFINITIONS

Agricultural Land – Land outside of acknowledged urban growth boundaries and acknowledged exception areas for Goal 3 or 4, that:

- a) Is classified by the U.S. Natural Resources Conservation Service (NRCS) as predominantly Class I-IV soils in Western Oregon and I-VI soils in Eastern Oregon;
- b) In other soil classes that is suitable for farm use as defined in ORS 215.203(2)(a), taking into consideration soil fertility; suitability for grazing; climatic conditions; existing and future availability of water for farm irrigation purposes; existing land use patterns; technological and energy inputs required; and accepted farming practices; and
- c) Is necessary to permit farm practices to be undertaken on adjacent or nearby agricultural lands.

Exception Area – an area no longer subject to the requirements of Goal 3 or 4 because the area is the subject of a site specific exception acknowledged pursuant to ORS 197.732 and OAR chapter 660, division 4. Within the Woodburn study area, this land includes areas zoned Acreage Residential (AR) and Public (P).

Floodplain – a stream or river valley apart from the channel that is inundated only in a flood event, attenuating the flood discharge. The 100-year floodplain shows the flood with a 100-year recurrence interval.

Special Status Species – a plant and animal species that is a federal listed, proposed, or candidate species; federal “species of concern”; or State of Oregon listed, proposed, or sensitive species.

Stream (Riparian) Corridor – an area along a river, lake, or stream which includes the water areas, fish habitat, wetlands, and adjacent riparian areas that mark the transition from an aquatic ecosystem to a terrestrial ecosystem.

Wetland – an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

INVENTORY METHODS

Review of Existing Information

A review of existing literature, maps, and other source materials was conducted to identify wetlands, stream corridors, floodplains, and special status species, or site characteristics indicative of these resources, within the study area. The document review included the following sources of information:

City of Woodburn and Marion County GIS data

- Study area (with subareas)
- City of Woodburn UGB
- Parcels
- Zoning
- Streets
- Streams
- LWI Wetlands
- Public parks and open space

Local Sources

- *City of Woodburn Local Wetland Inventory and Riparian Assessment*. Shapiro and Associates, January 5, 2000.
- *City of Woodburn Comprehensive Plan*. City of Woodburn Planning Department, October 1999 (amended).
- City of Woodburn Street/Address map. City of Woodburn Public Works Department, Engineering Division, January 10, 2002.
- *Official Zoning Map of the City of Woodburn, Oregon*. City of Woodburn, July 1, 2002 (last revision). (Includes Significant Wetlands and other wetlands.)
- Ortho photographs (color, April 7, 2000; scale: 1" = 100')
- Planimetrics (horiz. datum NAD 83(91); Or. State Plan North zone, intl. ft.; vert. datum NGVD 29, 1947 adj.)
- Topography (photo date 4/7/00; scale: 1" = 100'; contour interval: 2') (part of Planimetrics).

Other Sources

- Federal Emergency Management Act (FEMA) floodplain maps
- *Marion County Hydric Soils List*. U.S.D.A. Natural Resource Conservation Service (NRCS), 04/21/1999. (Includes hydric soils and soils with hydric inclusions).
- Oregon Department of Forestry and Oregon Department of Fish and Wildlife stream classification and fish-bearing stream maps
- Oregon Division of State Lands, wetland determination files (Woodburn area)
- Oregon Natural Heritage Program (ORNHP) species data. (Database search conducted October 18, 2002 included one-mile buffer from City Limits.)
- *Rare, Threatened and Endangered Plants and Animals of Oregon*. Oregon Natural Heritage Program, February 2001.
- *Soil Survey of Marion County Area, Oregon*. U.S.D.A. Soil Conservation Service, 1972. (Includes 1963 aerial photographs).

- U.S.D.A. Natural Resource Conservation Service. Farm Service Agency photomaps for the Woodburn area.
- U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory maps. Woodburn, St. Paul, and Silverton, Oregon quadrangles. 1981.
- U.S. Geological Survey (USGS) 7.5 minute topographic maps. Woodburn, St. Paul, and Silverton, Oregon quadrangles. 1981.
- Other agency data (e.g., Marion County, Oregon Department of Fish and Wildlife, Oregon Division of State Lands, Natural Resources Conservation Service)

This information was used as the basis for preparing a natural resource base map showing existing and potential wetland, stream, floodplain, and special status species habitats. Where data gaps existed, or where field verification was deemed necessary, a field inventory was conducted as described below.

Several public agencies were contacted as part of this review. These agencies included:

- City of Woodburn (Planning and Public Works);
- Marion County;
- Marion Soil and Water Conservation District;
- Natural Resources Conservation Service (NRCS);
- Oregon Department of Fish and Wildlife (ODFW);
- Oregon Department of Forestry (DOF);
- Oregon Division of State Lands (DSL); and
- The Oregon Natural Heritage Information Center (ORNHIC).

Field Inventory

Winterbrook conducted field studies and recorded observations of natural resources on October 16 and November [TBD], 2002. Wetlands, stream corridors, floodplains, and habitats with potential use by special status species were noted. Data from field notes, analysis of aerial photos and other maps, and information gathered from public agencies were used to complete the natural resources assessment.

A reconnaissance-level field survey was completed using an off-site methodology following DSL guidelines. Wetland, stream corridors, floodplains, and sensitive species habitats were viewed from nearby public rights-of-way, parks and open spaces, and other public lands. Natural resource base maps and data compiled in the information review phase were field checked from nearby public vantage points. For example, areas exhibiting wetland indicators such as wetland hydrology¹ or dominant hydrophytic vegetation² were noted. Off-site surveys

¹ Indicators of wetland hydrology include visual observation of ponding or soil saturation, historic records of flooding, visual evidence of previous water inundation such as dry algae on bare soil or water marks on soils or leaves, sediment deposition and drainage patterns.

² The wetland indicator status of the dominant species within each vegetative strata (e.g., herb, shrub, tree) is used to determine if the plant community may be characterized as hydrophytic and can thereby meet the wetland vegetation criterion.

are based on off-site viewing, interpretation based on photo signatures of adjacent wetlands (e.g., the City’s LWI wetlands), review of topography and soils data, and other information noted above. In areas where wetlands, stream corridors, floodplains, and special status species were determined to be present, the locations were documented on field maps and new information was digitized as polygon or point data on natural resource maps (see Figure 2).

Using data from existing species records and consultations with resource agency personnel, special status species with potential to occur within the study area were also evaluated. Field staff recorded observations of the availability of suitable habitat for species of special interest during the field surveys; however, a formal sensitive species survey was not completed. It should be emphasized that field surveys were conducted “off-site” and therefore focused on habitats visible from public lands, roads, and rights-of-way. It should also be noted that field surveys were conducted during the dormant season; they were not conducted during optimal warm weather survey times, when most plant or wildlife species can be more easily detected within the study area.

FINDINGS

This section describes the results of the review of existing information and field surveys conducted during October and November, 2002.

Goal 3 Resources: Agricultural Lands

Data on agricultural land classes and soils was obtained from U.S. Department of Agriculture, Natural Resources Conservation Service. Soils within the study area are composed of two primary associations, Amity silt loam and Woodburn silt loam. Both of these soils are found throughout the study area except along stream corridors and in wet areas. These soils are designated capability Class II by the Natural Resources Conservation Service. The stream corridors and wet areas generally contain poorly-drained “hydric” soils, most commonly Bashaw clay, Dayton silt loam, Concord silt loam, and Labish silty clay loam (see discussion of soils under Wetlands, below). Bashaw clay and Dayton silt loam are Class IV soils; Concord and Labish are Class III soils. Only 75 acres, or less than 2 percent of the study area, is composed of Class I soils. These soils are distributed adjacent to the Senecal and Mill Creek corridors in Subareas 1, 2 and 8.

Table 3 summarizes the soil types found within the study area, their capability unit class, and whether or not they are designated as high value farmland.

Table 3. Soil Characteristics

Map Unit Name	Map Symbol	Capability unit	High value farmland
AMITY SILT LOAM	Am	IIw-2	Yes
BASHAW CLAY	Ba	IVw-2	Yes
CONCORD SILT LOAM	Co	IIIw-2	Yes
DAYTON SILT LOAM	Da	IVw-1	Yes
LABISH SILTY CLAY LOAM	La	IIIw-2	No

Map Unit Name	Map Symbol	Capability unit	High value farmland
TERRACE ESCARPMENTS	Te	IVe-2	No
WAPATO SILTY CLAY LOAM	Wc	IIIw-2	No
WILLAMETTE SILT LOAM, 0 TO 3 PERCENT SLOPES	W1A	I-1	Yes
WOODBURN SILT LOAM, 0 TO 3 PERCENT SLOPES	WuA	IIw-1	Yes
WOODBURN SILT LOAM, 0 TO 3 PERCENT SLOPES	WuC	IIe-1	Yes
WOODBURN SILT LOAM, 12 TO 20 PERCENT SLOPES	WuD	IIIe-1	Yes

Source: U.S. Department of Agriculture, Natural Resources Conservation Service, 04/21/1999.

Exceptions Areas

The study area contains three exception areas. To the northwest (Subarea 1) is a 137-acre exception area along Butteville Road north of Highway 219 (Newberg Road). This area is zoned Acreage Residential (AR) and includes single-family housing and some agricultural (nursery) uses. To the northeast in Subarea 3 is the MacLaren School for Boys east of Highway 99E. This 145-acre exception area includes a small area of housing and is zoned Acreage Residential (AR) and Public (P). To the south (Subarea 6) is a 14-acre exception area comprised of single-family housing and farm uses along Highway 99E. These lands are zoned AR and P.

Summary

Tables 4.a and 4.b show the area (in acres) and percentages of soil categories within each planning subarea. As noted previously, most (76%) of non-exception lands are composed of Amity and Woodburn Class II soils. There are 75 acres (2%) of Class I soils, 485 acres (14%) of Class III soils, and 310 acres (9%) of Class IV soils. A total of 3,493 acres (97%) non-exception area lands within the study area are classified as high value farmland.

Table 4.a. Agricultural Soil Classes by Subarea

Subarea	Size (acres)	Exception areas	Class I	Class II	Class III	Class IV	High Value Farmland
1. Northwest	655	137	5	342	111	59	518
2. North	675		30	463	101	81	613
3. Northeast	330	145		149	28	10	184
4. East	343			310	15	16	325
5. Southeast	431			357	46	28	416
6. South	191	14		156	5	16	177
7. Southwest	506			362	124	19	506
8. West	755		40	578	55	81	754
Total Area	3886	296	75	2717	485	310	3493

Table 4.b. Percentage Agricultural Soil Classes by Subarea

Subarea	Resource Land* (acres)	Class I	Class II	Class III	Class IV	High Value Farmland
1. Northwest	518	1.0%	66.0%	21.4%	11.4%	100.0%
2. North	675	4.4%	68.6%	15.0%	12.0%	90.8%
3. Northeast	185	0.0%	80.5%	15.1%	5.4%	99.5%
4. East	343	0.0%	90.4%	4.4%	4.7%	94.8%
5. Southeast	431	0.0%	82.8%	10.7%	6.5%	96.5%
6. South	177	0.0%	88.1%	2.8%	9.0%	100.0%
7. Southwest	506	0.0%	71.5%	24.5%	3.8%	100.0%
8. West	755	5.3%	76.6%	7.3%	10.7%	99.9%
Total	3590	2.1%	75.7%	13.5%	8.6%	97.3%

* Resource land is non-exception land within each subarea.

Goal 5 and 7 Resources: Wetlands, Stream Corridors, Wildlife Habitat and Floodplains

Information Review and Agency Contacts

This section summarizes Winterbrook’s review of source materials identified in the Methods section and our contacts with resource agencies.

Wetlands

Local Wetland Inventory

In 2000, the City of Woodburn completed a local wetlands inventory (LWI) and riparian assessment within the UGB. Both “significant” and “other” (non-significant) wetlands are identified on the City’s Zoning Map. Several of these wetlands extend to and potentially beyond the UGB line, particularly in the north and west sections of the City. Wetlands that may extend outside the UGB into the present study area were examined using available aerial photographs and mapping and were field checked where possible. LWI wetlands also served as a reference for map interpretation: the City’s 2000 ortho-photographs were examined for evidence of LWI wetland signatures and hydric soil mapping was compared with LWI mapping to identify potential wetlands within the study area.

National Wetland Inventory

National Wetland Inventory (NWI) maps identify several palustrine emergent and palustrine forested within the study area. These wetlands are located primarily along stream corridors. A few man-made (excavated) open water wetlands are also identified in the northern and southern sub areas. NWI mapping is generally known to include a degree of error with respect to estimating wetland presence and size, especially in forested areas. Where possible, field

verification of NWI wetlands from nearby vantage points was conducted. NWI wetlands for each planning subarea are discussed further below.

Hydric Soils

The Natural Resources and Conservation Service (NRCS) has defined hydric soils as soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions, where oxygen is effectively absent from the environment, in the upper part of the soil profile. Hydric soils are indicative of wetlands.

Table 5 provides a list of hydric soils and soils with hydric inclusions within the study area, and indicates the local landform and capability class for each hydric soil type.

Table 5. Hydric Soil Characteristics

Map Unit Name	Map Symbol	Hydric?	Hydric Inclusion	Local landform	Capability unit
AMITY SILT LOAM	Am	No	Yes, Concord	terrace	IIw-2
BASHAW CLAY	Ba	Yes	N/a	flood plain	IVw-2
CONCORD SILT LOAM	Co	Yes	Yes, Dayton	terrace	IIIw-2
DAYTON SILT LOAM	Da	Yes	Yes, Concord	terrace	IVw-1
LABISH SILTY CLAY LOAM	La	Yes	Yes, Wapato, Semiahmoo	relict lakebed	IIIw-2
WAPATO SILTY CLAY LOAM	Wc	Yes	N/a	flood plain	IIIw-2
WOODBURN SILT LOAM, 0 TO 3 PERCENT SLOPES	WuA	No	Yes, southwest poorly drained soils	terrace	IIw-1
WOODBURN SILT LOAM, 0 TO 3 PERCENT SLOPES	WuC	No	Yes, poorly drained soils	terrace	IIe-1
WOODBURN SILT LOAM, 12 TO 20 PERCENT SLOPES	WuD	No	Yes, poorly drained soils	terrace	IIIe-1

Source: U.S. Department of Agriculture, Natural Resources Conservation Service, 04/21/1999.

Marion Soil and Water Conservation District / NRCS

Winterbrook contacted Monte Graham at the Marion Soil and Water Conservation District to obtain information on wetlands documented on Farm Service Agency photomaps within the planning area. Winterbrook reviewed copies of photomaps showing wetland areas. Wetlands were mapped along stream channels, including Senecal and Mill Creeks, with larger wetlands found to the east along the Pudding River floodplain.

More than 85 percent of the wetland types identified within the study area were classified as "Prior Converted Cropland." Prior converted cropland is land that was drained, filled, or manipulated prior to December 23, 1985; was cropped prior to that date; was not abandoned; and does not meet Farmed Wetland criteria. Prior Converted Cropland is not subject to wetland conservation regulations unless it reverts to wetland as a result of abandonment. "Farmed Wetland" is an area that was manipulated and planted prior to December 23, 1985, but still meets wetland criteria. These wetlands may be farmed and maintained in the same manner as long as they are not abandoned. Several Farmed Wetlands are noted on agricultural sites within the study area.

Many of the Prior Converted Croplands and Farmed Wetlands within the study area are tilled to eliminate hydrology. These lands are typically located within areas of poorly-drained, hydric soils that could be expected to revert to wetlands without regular maintenance of drainage systems. As noted previously, all lands with hydric soils are designated as Class III or IV soils. Several areas of Prior Converted Croplands that appear through photo-interpretation or field surveys to meet wetland criteria (but are still farmed) were identified as Farmed Wetlands on the natural resource maps.

Division of State Lands

Winterbrook contacted Ed Emrick and Heather Howard at the Division of State Lands (DSL) to discuss the state's available wetland determination data for the Woodburn area. Copies of wetland determination files were received from DSL. Of the eight determinations identified by DSL, five were located inside UGB and three were within the planning area. Only one of the three determinations in the planning area contained jurisdictional wetlands. These wetlands are located at the Tukwila Golf Course site in the northern part of the study area near Crosby Road. Since this determination was more than five years old (and hence DSL's delineation "concurrence" has elapsed), a field check was conducted.

Significance Criteria

Wetlands are considered significant for the purposes of this study if they: 1) provide high quality fish or wildlife habitat, water quality, or hydrologic control functions; 2) contain rare plant communities or federal or state-listed species; or 3) have a surface water connection to a salmonid-bearing stream.

Stream Corridors

With one minor exception, the study area is contained within the Molalla-Pudding River watershed.³ The Pudding River and its small tributaries define the eastern edge of the study area. The river is the western arm of the large Molalla-Pudding system, a low-gradient, sinuous river system with a large floodplain and a drainage area of 204 square miles. The 62-mile river originates in the low elevation Waldo Hills east of Salem and flows through open fields and farmland before joining the Willamette River east of Wilsonville.⁴

³ A few acres of land along the Oregon Electric Railway in the northwest corner of the study area drain to Case Creek, which is part of the Champoeg Creek watershed that flows through the French Prairie region.

⁴ The lower reaches of Pudding River (including Woodburn) are listed as water quality limited by the state (DEQ). High temperatures, low dissolved oxygen saturation and high fecal coliform bacteria counts exist seasonally in the Pudding River. Levels of DDT exceeded standards in the lower river (at Aurora) during 1994 surveys.

Two principal stream corridors, Senecal Creek and Mill Creek, flow through the study area. Both streams are tributaries to the Pudding River. Both streams also are designated as fish-bearing streams by the Oregon Department of Forestry and Oregon Department of Fish and Wildlife.

Senecal Creek

Senecal Creek, a perennial stream, flows south to north through the western part of the study area (SA-1 and SA-8). East Senecal Creek joins Senecal Creek (mainstem) south of Crosby Road; the stream joins Mill Creek one mile south of Aurora before discharging to the Pudding River. The Senecal Creek and East Senecal Creek corridors are comprised of large Douglas fir and Oregon white oak along the upper banks, with Oregon ash and reed canarygrass dominated wetlands along the stream channel. The streamside wetlands and floodplain areas are quite expansive, particularly in the northern reach of Senecal Creek, with widths of up to 300 feet. The stream corridor width varies from approximately 100 feet (in SA-8) to 500 feet (SA-1). The streamside wetlands and floodplain areas, combined with the vegetated banks and ravines, generally provide high water quality and wildlife habitat functions.

Mill Creek

Mill Creek flows north to south through Woodburn and discharges into the Pudding River just north of Aurora. Due to its path through the center of Woodburn, the stream has a different character than Senecal Creek. As noted in the City's Comprehensive Plan, Mill Creek within the City "has been channelized and offers little opportunity for fish and wildlife habitat." Outside of the City within the study area, the stream corridor is generally wider and the channel less manipulated but streamside vegetation and habitat functions remain limited. Some reaches of the stream are in fair to moderate condition, with high functioning floodplains and sparsely vegetated banks composed of Douglas fir, Oregon ash, black cottonwood, and willows. Reed canarygrass is the dominant cover in wetlands along the stream channel. The streamside wetlands and floodplain areas average approximately 100 feet. The stream corridor width varies from approximately 200 feet (in SA-6) to 300 feet (SA-2).

Accompanying the main stream corridors are several small tributaries which characteristically begin as wide swales of gentle slope (often on farmland) and become well defined channels and ravines near the principal streams.

Significance Criteria

Stream corridors are considered significant for the purposes of this study if they: 1) provide high quality fish or wildlife habitat, water quality, thermal regulation, or flood management functions; 2) contain special status species; or 3) contain a perennial fish-bearing stream.

Habitat for Special Status Species

Winterbrook requested and received information from the Oregon Natural Heritage Information Center (ORNHIC) and the Oregon Department of Fish and Wildlife (ODFW) on special status

species and their documented or potential occurrence within the study area.⁵ Special status species for the purposes of this review include a federal listed, proposed, or candidate species; federal “species of concern”; or State of Oregon listed, proposed, or sensitive species.

Winterbrook contacted Cliff Alton at the ORNHIC to request a database search for documented occurrences of special status species. Four species records were found in the area, including three plant records (one for peacock larkspur and two for thin-leaved peavine) and an invertebrate (Oregon giant earthworm). Additional data on listed fish species was also provided (Alton 2002; ORNHIC 2002).

Winterbrook contacted ODFW Habitat Biologist Jim Grimes (North Willamette District) and Assistant Wildlife Biologist Will High (Salem Field Office) for information on special status fish and wildlife species within the study area. Winterbrook reviewed a joint ODFW/DLCD letter (Knight and Wheaton 2002) regarding updated inventories of fish and wildlife, and associated data and background reports.

Using data from existing species records and consultations with resource agency personnel, special status species with potential to occur within the study area were evaluated. Observations of the availability of suitable habitat were recorded during the field investigation; however, a formal sensitive species survey was not completed.

The following table identifies the federal and state status of the species and their known or potential presence within the study area. The table contains “plants,” “wildlife” and “fish” categories, and is organized alphabetically by common name. Appendix A provides a brief review of the habitat and life cycle requirements of each species and a discussion of their potential occurrence within the study area.

Table 6. Special Status Species

Common Name	Scientific Name	Federal Status	State Status	Occurrence
Plants				
peacock larkspur	<i>Delphinium pavonaceum</i>	SoC	LE	P – ORNHIC historic record approx. 5 miles north of study area (SA-1, SA-2)
thin-leaved peavine	<i>Lathyrus holochlorus</i>	SoC	-	Y – 2 ORNHIC historic records within Woodburn; one at SA-4
Wildlife				
bald eagle	<i>Haliaeetus leucocephalus</i>	T	T	P – successful nesting at Jackson Bend (Willamette); juveniles could be pioneering into Woodburn area
fringed myotis	<i>Myotis thysanodes</i>	SoC	SV	P – bridges, barns, brush piles

⁵ ORNHIC provided information on special status species and their documented occurrence within the study area and a one-half mile buffer around the study area.

Common Name	Scientific Name	Federal Status	State Status	Occurrence
little willow flycatcher	<i>Empidonax traillii brewsteri</i>	SoC	SV	P – shrub thickets (stream corridors)
long-eared myotis	<i>Myotis evotis</i>	SoC	SU	P – bridges, barns, brush piles
long-legged myotis	<i>Myotis volans</i>	SoC	SU	P – bridges, barns, brush piles
northern red-legged frog	<i>Rana aurora aurora</i>	SoC	SU	P – ponds and stream corridors
northwestern pond turtle	<i>Clemmys marmorata marmorata</i>	SoC	SC	Y – reported (by ODFW) in Woodburn pond (east of I-5 by SA-2); potential in other pond habitats
olive-sided flycatcher	<i>Contopus cooperi</i>	SoC	SV	P – conifer forest, stream corridors
Oregon giant earthworm	<i>Driloleirus (=Megascolides) macelfreshi</i>	SoC	-	P – ORNHIC record approx. 5 miles north of study area (SA-1, SA-2)
Pacific western big-eared bat	<i>Corynorhinus townsendii townsendii</i>	SoC	SC	P – bridges, barns, brush piles
painted turtle	<i>Chrysemys picta belli</i>	-	SC	P – pond habitats incl. Woodburn pond (east of I-5 by SA-2)
Fish				
Chinook salmon, Upper Willamette River ESU, spring run	<i>Oncorhynchus tshawytscha</i>	T	-	P – occurs in Pudding River
Coastal cutthroat trout (Southwestern Washington/Columbia River ESU)	<i>Oncorhynchus clarki clarki</i>	PT	SC	Y – Senecal Creek, also in Pudding River system
Coho salmon (Lower Columbia River/Southwest Washington ESU)	<i>Oncorhynchus kisutch</i>	C	SC	P – occurs in Pudding River
Steelhead, Lower Columbia River ESU, spring run	<i>Oncorhynchus mykiss</i>	T	SU	P – occurs in Pudding River

Key:

ESU: Evolutionarily Significant Unit (a unique group of Pacific salmon, steelhead, or sea-run cutthroat trout)

Federal Status: **T**=Threatened, **P**=Proposed, **C**=Candidate, **SoC**= Species of Concern

State Status: **E**=Endangered, **T**=Threatened, **SC**= Sensitive-Critical, **SV**=Sensitive-Vulnerable, **SU**=Sensitive-Undetermined Status, **C**=Candidate for listing

Occurrence: **P**=Potential occurrence based on assessment of habitat and range; **Y**=Recorded within the planning area; **N**=No recent records and not expected based on habitat and range.

Significance Criteria

Habitat is considered significant for the purposes of this study if it: 1) supports special status species; or 2) is identified by ODFW as habitat for a wildlife species of concern and/or as a habitat of concern.

Floodplains

The source of floodplain data was the Federal Emergency Management Act (FEMA) floodplain maps for the Woodburn area, as reflected in the City's GIS data layer (floodplain theme).

Floodplains within the study area were limited to the two primary stream corridors, Senecal and Mill Creeks. Hence only four subareas contain floodplains: Subarea 1 (17 acres), Subarea 2 (41 acres), Subarea 6 (11 acres), and Subarea 8 (<1 acre).

Under Goal 7, natural hazards are defined to include floods and thus all floodplains are considered significant for the purposes of this analysis.

SUBAREA SUMMARIES

The following section summarizes the location, quantity and quality of natural resources within individual planning subareas. The subareas range in size from 191 to 755 acres, and have a combined size of 3,886 acres.

Subarea 1

Subarea 1 is 655 acres in size and located in the northwest portion of the study area (Figure 1). This site is bounded to the east by Interstate 5 and the UGB, west by Oregon Electric Railway, south by Highway 214 (Newberg Hwy.), and north by a line approx. 1,000 feet north of and parallel to Crosby Road.

Agricultural and Exceptions Lands Summary

Subarea 1 contains a 137-acre exception area along Butteville Road north of Highway 219 (Newberg Road). This area is zoned Acreage Residential (AR) and includes single-family housing and some agricultural (nursery) uses.

Resource (non-exception) lands within the subarea include 5 acres (1%) Class I soils, 342 acres (66%) Class II soils, 111 acres (21%) Class III soils, and 59 acres (11%) Class IV soils. All resource lands within the subarea are designated high value farmland.

Natural Resource Summary

This section summarizes Goal 5 and 7 resource findings for planning subarea 1. Table 7 presents a summary of wetlands, stream corridors, floodplains, and special status species. The table is organized by resource category (type), providing information on the location, quality, and

quantity of each resource within the category, and summarizing the percentage of area affected by natural resource constraints.

Table 7. Subarea 1 Natural Resources

Resource Type	Resource / Code	Location	Quality	Quantity (acres)
Wetlands	W-SC-1	Senecal Creek	High – PFO/EM1Y, PFO1W, PEM1Y	35.61
	W-SC-2	East Senecal Creek	High - PFO1W, PEM1Y	12.20
	W-SC*	Pond/lagoon	Low - POWKZx	6.56
Stream Corridors	S-SC Senecal Creek	East of Butteville Rd.	High water quality, fish & wildlife habitat functions	76.67
	S-SC-E East Senecal Creek	East of Woodland Ave.	High water quality, wildlife habitat functions	19.58
Floodplains	F-SC	Senecal Creek, East Senecal Creek	High floodplain functioning	16.89
Special Status Species	Cutthroat trout	Senecal Creek	Moderate to high quality instream and riparian habitat	Within stream channel (above)
	Red-legged frog	Senecal Creek, East Senecal Creek, ponds and wetlands	High quality habitat; potential breeding sites	Within wetlands and stream corridors (above)

* These wetlands do not meet the significance criteria and will not be factored in the subsequent analysis.

Subarea 2

Subarea 2 is 675 acres in size and located in the north portion of the study area (Figure 1). This site is bounded to the west by Interstate 5, east by Union Pacific Railway and N. Front Street, south by the UGB, and north by a line approx. 1,000 feet north of and parallel to Crosby Road.

Agricultural and Exceptions Lands Summary

No exception areas are located in Subarea 2.

Resource lands within the subarea include 30 acres (4%) Class I soils, 463 acres (69%) Class II soils, 101 acres (15%) Class III soils, and 81 acres (12%) Class IV soils. Approximately 613 acres (91%) of resource lands within the subarea are designated high value farmland.

Natural Resource Summary

Table 8 provides a summary of findings for wetlands, stream corridors, floodplains, and special status species within planning subarea 2. The table is organized by resource category (type), providing information on the location, quality, and quantity of each resource within the category, and summarizing the percentage of area affected by natural resource constraints.

Table 8. Subarea 2 Natural Resources

Resource Type	Resource / Code	Location	Quality	Quantity (acres)
Wetlands	W-MC-8	Mill Creek	Moderate - PEM1Y	20.28
	W-MC-N	North Mill Creek tributary	Moderate - PFO1Y	5.03
	W-MC-S	South Mill Creek tributary	Moderate - PFO1W, PEM1Y partly filled by golf course	2.86
	W-MC-G (group, incl. MC-26)	Golf Course ponds	Low except for hydro-logic control function (POWKZx)	1.29
	W-MC-F2 (group of farmed wetlands)*	Cropland bet/I-5 and Boones Ferry Road	Low (Farmed)	4.98
Stream Corridors	S-MC Mill Creek	Between Boones Ferry Road and Front Street	Moderate water quality, wildlife habitat functions	62.47
Floodplains	F-MC	Mill Creek	Moderate to high floodplain functioning	40.62
Special Status Species	Western pond turtle	Pond east of I-5 near Hovenden Lane; potential at other ponds	Moderate to high quality habitat	Within pond
	Painted turtle	Potential in pond east of I-5, other ponds	Moderate to high quality habitat	Within pond
	Red-legged frog	Potential in ponds and along stream corridor	Low to moderate quality habitat	Within wetlands and stream corridors

* These wetlands do not meet the significance criteria and will not be factored in the subsequent analysis.

Subarea 3

Subarea 3 is 330 acres in size and located in the southeast portion of the study area (Figure 1). This site is bounded to the west by Union Pacific Railway and the UGB, east by the MacLaren School for Boys, north by Dimmick Road NE, and south by Highway 211 (Estacada Hwy).

Agricultural and Exceptions Lands Summary

Subarea 3 contains a 145-acre exception area which includes a small area of housing and a portion of the MacLaren School for Boys east of Highway 99E. This area is zoned Acreage Residential (AR) and Public (P).

Resource (non-exception) lands within the subarea include no Class I soils, 149 acres (81%) Class II soils, 28 acres (15%) Class III soils, and 10 acres (5%) Class IV soils. All but one acre of resource lands within the subarea are designated high value farmland.

Natural Resource Summary

Table 9 provides a summary of findings for wetlands, stream corridors, floodplains, and special status species within planning subarea 3. The table is organized by resource category (type), providing information on the location, quality, and quantity of each resource within the category, and summarizing the percentage of area affected by natural resource constraints.

Table 9. Subarea 3 Natural Resources

Resource Type	Resource / Code	Location	Quality	Quantity (acres)
Wetlands	W-MC-19	Mill Creek tributary east of Front Street	Low to Moderate - PFO1Y, PEM1Y	4.18
	W-MC-P	Pond east of Front Street	Moderate except for hydro-logic control function (POWKZx)	1.91
	W-MC-F3 (farmed wetlands)*	Cropland east of Front Street	Low (Farmed)	0.85
Stream Corridors	S-MC Mill Creek tributary	Between Front Street and Hwy. 99E	Low to moderate water quality, habitat functions	14.90
	S-PR Pudding River tributaries	Southeast of MacLaren School	Moderate to high water quality, fish and wildlife habitat functions	0.04
Floodplains	N/A			0
Special Status Species	Western pond turtle	Potential in pond east of Front Street	Moderate quality habitat	Within ponds
	Painted turtle	Potential in pond east of Front Street	Moderate quality habitat	Within ponds
	Red-legged frog	Potential in ponds and along stream corridors	Low to moderate quality habitat	Within wetlands and stream corridors

* These wetlands do not meet the significance criteria and will not be factored in the subsequent analysis.

Subarea 4

Subarea 4 is 343 acres in size and located in the east portion of the study area (Figure 1). This site is bounded to the west by the UGB and Cooley Road, east by properties within ½ mile of the UGB (Pudding River plateau, reservoir), north by Dimmick Road NE, and south by Highway 214.

Agricultural and Exceptions Lands Summary

No exception areas are located in Subarea 4.

Resource lands within the subarea include no Class I soils, 310 acres (90%) Class II soils, 15 acres (5%) Class III soils, and 16 acres (5%) Class IV soils. Approximately 325 acres (95%) of resource lands within the subarea are designated high value farmland.

Natural Resource Summary

Table 10 provides a summary of findings for wetlands, stream corridors, floodplains, and special status species within planning subarea 4. The table is organized by resource category (type), providing information on the location, quality, and quantity of each resource within the category, and summarizing the percentage of area affected by natural resource constraints.

Table 10. Subarea 4 Natural Resources

Resource Type	Resource / Code	Location	Quality	Quantity (acres)
Wetlands	W-PR	Pudding River tributaries east of Cooley, north of Hwy. 214	Moderate to High - PFO1Y, PEM1Y	2.46
	W-PR-F4 (farmed wetlands)*	Cropland south of Hwy. 211	Low (Farmed)	0.73
Stream Corridors	S-PR Pudding River tributaries	South of Hwy. 211	Moderate to high water quality, fish and wildlife habitat functions	18.48
Floodplains	N/A			0
Special Status Species	Red-legged frog	Potential along stream corridors	Mmoderate quality habitat	Within wetlands and stream corridors

* These wetlands do not meet the significance criteria and will not be factored in the subsequent analysis.

Subarea 5

Subarea 5 is 431 acres in size and located in the east portion of the study area (Figure 1). This site is bounded to the west by Highway 99E (Pacific Hwy) and the UGB, east by properties within ½ mile of the UGB (Pudding River plateau), north by Highway 214, and south by Geschwill Lane NE.

Agricultural and Exceptions Lands Summary

No exception areas are located in Subarea 5.

Resource lands within the subarea include no Class I soils, 357 acres (83%) Class II soils, 46 acres (11%) Class III soils, and 28 acres (6%) Class IV soils. Approximately 416 acres (97%) of resource lands within the subarea are designated high value farmland.

Natural Resource Summary

Table 11 provides a summary of findings for wetlands, stream corridors, floodplains, and special status species within planning subarea 5. The table is organized by resource category (type), providing information on the location, quality, and quantity of each resource within the category, and summarizing the percentage of area affected by natural resource constraints.

Table 11. Subarea 5 Natural Resources

Resource Type	Resource / Code	Location	Quality	Quantity (acres)
Wetlands	N/A			0
Stream Corridors	S-PR Pudding River tributaries	South of Hwy. 211	Moderate to high water quality, fish and wildlife habitat functions	6.15
Floodplains	N/A			0
Special Status Species	Red-legged frog	Potential along stream corridors	Moderate quality habitat	Within wetlands and stream corridors

Subarea 6

Subarea 6 is 191 acres in size and located in the southeast portion of the study area (Figure 1). This site is bounded to the east by Highway 99E (Pacific Hwy), west by Southern Pacific Railroad, north by the UGB, and south by Belle Passe Road.

Agricultural and Exceptions Lands Summary

Subarea 6 contains a 14-acre exception area comprised of single-family housing and farm uses along Highway 99E. These lands are zoned AR and P.

Resource (non-exception) lands within the subarea include no Class I soils, 156 acres (88%) Class II soils, 5 acres (3%) Class III soils, and 16 acres (9%) Class IV soils. All resource lands within the subarea are designated high value farmland.

Natural Resource Summary

Table 12 provides a summary of findings for wetlands, stream corridors, floodplains, and special status species within planning subarea 6. The table is organized by resource category (type), providing information on the location, quality, and quantity of each resource within the category, and summarizing the percentage of area affected by natural resource constraints.

Table 12. Subarea 6 Natural Resources

Resource Type	Resource / Code	Location	Quality	Quantity (acres)
Wetlands	W-MC-1	Mill Creek	Moderate - PEM1Y	10.72
	W-MC-F6 (farmed wetlands)*	Cropland west of Hwy. 99E	Low (Farmed)	4.58
Stream Corridors	S-MC Mill Creek	West of Hwy. 99E	Moderate water quality, wildlife habitat functions	15.34

Resource Type	Resource / Code	Location	Quality	Quantity (acres)
Floodplains	F-MC	Mill Creek	Moderate to high floodplain functioning	11.38
Special Status Species	Red-legged frog	Potential along stream corridor	Low to moderate quality habitat	Within wetlands and stream corridors

* These wetlands do not meet the significance criteria and will not be factored in the subsequent analysis.

Subarea 7 - Southeast

Subarea 7 is 506 acres in size and located in the southeast portion of the study area (Figure 1). This site is bounded to the east by Southern Pacific Railroad, west by Interstate 5, north by the UGB, and south by Belle Passe Road (extension).

Agricultural and Exceptions Lands Summary

No exception areas are located in Subarea 7.

Resource lands within the subarea include no Class I soils, 362 acres (71%) Class II soils, 124 acres (25%) Class III soils, and 19 acres (4%) Class IV soils. All resource lands within the subarea are designated high value farmland.

Natural Resource Summary

Table 13 provides a summary of findings for wetlands, stream corridors, floodplains, and special status species within planning subarea 7. The table is organized by resource category (type), providing information on the location, quality, and quantity of each resource within the category, and summarizing the percentage of area affected by natural resource constraints.

Table 13. Subarea 7 Natural Resources

Resource Type	Resource / Code	Location	Quality	Quantity (acres)
Wetlands	W-MC-15A	Mill Creek	Moderate - PEM1Yx	0.79
	W-MC-F7 (farmed wetlands)*	Cropland west of Union Pacific Railroad	Low (Farmed)	0.09
Stream Corridors	N/A			0
Floodplains	N/A			0
Special Status Species	N/A			0

* These wetlands do not meet the significance criteria and will not be factored in the subsequent analysis.

Subarea 8 – Northwest

Subarea 8 is 755 acres in size and located in the northwest portion of the study area (Figure 1). This site is bounded to the east by Interstate 5 and the UGB, west by Oregon Electric Railway, north by Highway 214 (Newberg Hwy.), and south by property south of Parr Road NE.

Agricultural and Exceptions Lands Summary

No exception areas are located in Subarea 8.

Resource lands within the subarea include 40 acres (5%) Class I soils, 578 acres (77%) Class II soils, 55 acres (7%) Class III soils, and 81 acres (11%) Class IV soils. All but one acre of resource lands within the subarea are designated high value farmland.

Natural Resource Summary

Table 14 provides a summary of findings for wetlands, stream corridors, floodplains, and special status species within planning subarea 8. The table is organized by resource category (type), providing information on the location, quality, and quantity of each resource within the category, and summarizing the percentage of area affected by natural resource constraints.

Table 14. Subarea 8 Natural Resources

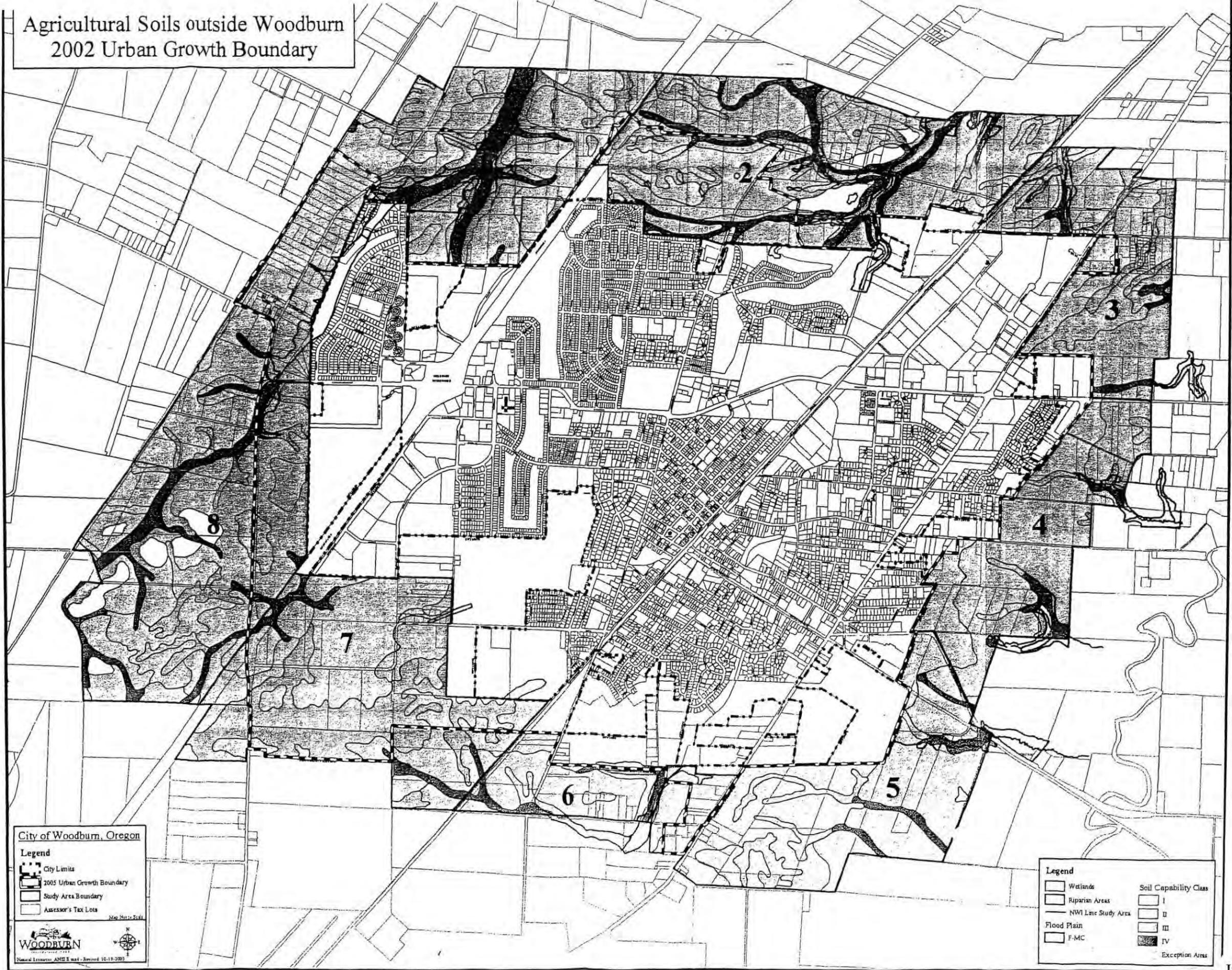
Resource Type	Resource / Code	Location	Quality	Quantity (acres)
Wetlands	W-SC-1	Senecal Creek	Moderate – PFO/EM1Y	4.43
Stream Corridors	S-SC Senecal Creek	East Oregon Electric Railway	Moderate to high water quality, fish & wildlife habitat functions	14.09
Floodplains	F-SC	Senecal Creek, East Senecal Creek	Moderate floodplain functioning	0.26
Special Status Species	Cutthroat trout	Senecal Creek	Moderate quality instream and riparian habitat	Within stream channel
	Red-legged frog	Senecal Creek, wetlands	High quality habitat; potential breeding sites	Within wetlands and stream corridors

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Agricultural Soils outside Woodburn
2002 Urban Growth Boundary



City of Woodburn, Oregon

Legend

- City Limits
- 2005 Urban Growth Boundary
- Study Area Boundary
- Assessor's Tax Lots

Map Date: 2/11/07

Natural Resources AM2 E map - Revised 10-19-2007

Legend

Wetlands	Soil Capability Class I
Riparian Areas	Soil Capability Class II
NWI Line Study Area	Soil Capability Class III
Flood Plain	Soil Capability Class IV
F-MC	Exception Areas

EXHIBIT 4-H

4-H

**SITE REQUIREMENTS FOR
WOODBURN TARGET
INDUSTRIES**

ECONorthwest

ECONOMICS • FINANCE • PLANNING

Phone • (541) 687-0051
FAX • (541) 344-0562
info@eugene.econw.com

Suite 400
99 W. 10th Avenue
Eugene, Oregon 97401-3001

Other Offices
Portland • (503) 222-6060
Seattle • (206) 622-2403

20 October 2003

TO: Greg Winterowd, Winterbrook Planning Services
FROM: Bob Parker
SUBJECT: SITE REQUIREMENTS FOR WOODBURN TARGET INDUSTRIES

BACKGROUND

In 2001, ECONorthwest and WPS completed an Economic Opportunities Analysis (EOA) for the City of Woodburn. The EOA included a local economic development strategy that was adopted by the Woodburn City Council. That strategy requires substantial amendments to the City's planning documents, including justification for an Urban Growth Boundary expansion.

In early 2002, Winterbrook Planning (Winterbrook) began work with the City to prepare the necessary plan amendments and findings to justify the UGB expansion. As a part of Winterbrook's preliminary work, ECO developed revised population and employment forecasts. To supplement previous work conducted by ECO, Winterbrook requested ECONorthwest complete additional research on three issues:

1. The impact the City's economic development strategies will have on household incomes;
2. Demand for non-residential land implied by the revised employment forecast; and
3. Site needs for industries targeted as part of the City's economic development strategy.

This memorandum addresses the third task: site needs for target industries. It provides a summary of the results of the second task—the land need, combined with the City's economic development and targeted industries strategy drive demand for non-residential sites.

PURPOSE AND METHODS

The EOA described the general site needs of target industries. To justify a UGB expansion, however, requires more detail. Consistent with Tasks 2 and 3 of our work program, the key objectives of this memorandum are to:

- Identify the site requirements of target industries identified in the 2000 Woodburn Economic Opportunities Analysis;
- Develop a matrix of target industries and site requirements; and

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We began this analysis by reviewing the 2000-2020 employment forecasts. The 2000-2020 employment forecasts provide the basis for our provisional demand estimates for non-residential land. The provisional estimates apply assumptions about employment density—specifically employees per acre, and square footage of built space per employee. ECO used additional assumptions about vacancy rate, employment that requires no built space, and other variables.

ECO initiated Task 3 with a series of interviews with realtors and developers to gather more information about site needs and preferences. We will also conduct a literature review to describe trends in industrial development, with a specific focus on business parks. Finally, we will use data from Task 2 and the EOA to estimate the number of sites, by size class and locational requirements, needed to accommodate forecast employment by target industry in Woodburn.

FINDINGS

DEMAND FOR COMMERCIAL AND INDUSTRIAL LAND

Table 1 shows the amount of new land and built space needed for each land use type in Woodburn over the 2000–2020 period. The results assume the medium employment forecast of 7,140 new jobs between 2000 and 2020. The amount of land needed (in acres) is calculated by dividing employment growth that will require new space by the employees/acre assumption for each land use type, with an adjustment for vacancy. Square feet of building space needed is calculated by multiplying employment growth that will require new building space by the square feet per employee assumption for each land use type, with an adjustment for vacancy.

Table 1. Woodburn vacant land and new built space need by land use type, medium employment forecast, 2000–2020

Type	Acres of land		Sq. Ft. of building space	
Commercial	70.6	19%	847,174	22%
Office	41.2	11%	577,391	15%
Industrial	224.1	61%	2,039,728	54%
Public	33.3	9%	332,800	9%
Total	369.3	100%	3,797,093	100%

Source: ECONorthwest.

Table 1 shows that about 370 acres of *new development* and 3.80 million square feet of building space are needed to accommodate the 6,346 new employees forecasted for the next 20 years to be accommodated in buildings that will be constructed on vacant land. Industrial uses are projected to need the most land and building space, almost 225 acres and 2.04 million square feet.

SITE NEEDS OF TARGET INDUSTRIES

This section describes general site requirements and considerations for relocating and expanding commercial and industrial firms, as well as specific site requirements for target industries identified in the Woodburn Economic Opportunities Analysis (ECONorthwest,

2000). To supplement the analysis, ECO interviewed Willamette Valley realtors and developers with expertise on developments in target areas in the Willamette Valley.

The required site and building characteristics for the target industries identified in the EOA range widely. As such, a variety of parcel sizes, building types and land use designations will be required to attract target industries. Overall, the most important factors echoed throughout the literature and interviews include appropriate parcel size and location, labor force quality, access to the Interstate highway system, and proximity to customers.

The Woodburn EOA concluded that the site needs of target industries generally fall into one of four types of site classifications: large lot industrial sites (40-80+ acre parcels); campus research and development (R&D) and smaller manufacturing sites (20 to 40 acre parcels); smaller light industrial/office sites (4-20 acre parcels); and speculative space within office/flex and mixed-use developments.

Large lot target industries include Electronic and Electric Equipment manufacturing (i.e., silicon chip fabrication plants). These users are generally more land intensive (typical site requirements exceed 100 acres) and have a relatively high level of environmental and water system impacts.

Industries with firms that may locate in campus research and development (R&D) and manufacturing sites include Electronic and Electric Equipment and the rest of the manufacturing industries may fall into this category.

Smaller light industrial/office sites (4-20 acre parcels) and speculative space within office/flex and mixed-use developments could accommodate smaller manufacturing firms, firms in Wholesale Trade and all of the Non-Industrial target industries.

Table 3 summarizes the lot sizes needed for firms in target industries for which data is available at this time. The acreage figures for some target industries are slightly different than those reported in the EOA. This reflects the additional research conducted on the site needs of target industries for this analysis.

Table 3. Typical lot size requirements for firms in target industries

Industry	Lot Size (acres)	Site Needs
Printing & Publishing	5 - 30	
Stone, Clay & Glass	10 - 65	Flat
Fabricated Metals	5 - 20	Flat
Industrial Machinery	10 - 20	Flat
Electronics - Fab Plants	100 - 300	Suitable Soil
Electronics - Other	5 - 30	
Transportation Equipment	10 - 20	Flat
Trucking & Warehousing	varies	
Wholesale Trade	varies	
Non-Depository Institutions	1 - 5	
Business Services	1 - 5	
Health Services	1 - 10	
Engineering & Management	1 - 5	

Source: Woodburn Economic Opportunities Analysis, ECONorthwest, 2000.

There is a fair amount of variability between site requirements of different firms targeted in the Woodburn EOA. Parcel size varied from approximately 0.5 acres to 100+ acre sites. Placement of the firms ranged commercial to heavy industrial. Transportation, especially interstate access, was an important factor for almost all firms. While some firms needed to be close to customers, others site requirements included proximity to inputs.

The following sections describe the locational and site needs of typical firms in target industries.

Industry 27: Printing and Publishing

According to Steve Cody of the Printing Industries of America, approximately 75 percent of printing and publishing firms are small, family owned businesses with 15 or fewer employees. Site requirements for smaller firms are substantially different from the larger firms, which can employ 250 or more employees. The smaller firms can operate on relatively small parcels (approximately .5 acre) in buildings that are about 2,000 square feet. They generally locate within 20 miles of their clients, so access, in the form of a good, local transportation system, is key.

Larger firms generally run web presses and may run up to three shifts per day. They need electric utilities that offer good rates at all times, including peak and off times. Water utilities will also be an issue as the web presses are partially cooled by water. The web presses also use natural gas. Interstate and airport transportation will be a larger concern for large printers and publishers as their clients may be located throughout the United States and they may have rush jobs that must be delivered over night. They may also want rail access as they may ship paper in by the boxcar. Land requirements for larger firms are 20 to 30 acres minimum, not including buildings for administrative purposes.

Environmental concerns will also be an issue. Volatile organic compound (VOC) emission permitting laws will be a consideration. A variety of chemicals are used in the process and

2000). To supplement the analysis, ECO interviewed Willamette Valley realtors and developers with expertise on developments in target areas in the Willamette Valley.

The required site and building characteristics for the target industries identified in the EOA range widely. As such, a variety of parcel sizes, building types and land use designations will be required to attract target industries. Overall, the most important factors echoed throughout the literature and interviews include appropriate parcel size and location, labor force quality, access to the Interstate highway system, and proximity to customers.

The Woodburn EOA concluded that the site needs of target industries generally fall into one of four types of site classifications: large lot industrial sites (40-80+ acre parcels); campus research and development (R&D) and smaller manufacturing sites (20 to 40 acre parcels); smaller light industrial/office sites (4-20 acre parcels); and speculative space within office/flex and mixed-use developments.

Large lot target industries include Electronic and Electric Equipment manufacturing (i.e., silicon chip fabrication plants). These users are generally more land intensive (typical site requirements exceed 100 acres) and have a relatively high level of environmental and water system impacts.

Industries with firms that may locate in campus research and development (R&D) and manufacturing sites include Electronic and Electric Equipment and the rest of the manufacturing industries may fall into this category.

Smaller light industrial/office sites (4-20 acre parcels) and speculative space within office/flex and mixed-use developments could accommodate smaller manufacturing firms, firms in Wholesale Trade and all of the Non-Industrial target industries.

Table 3 summarizes the lot sizes needed for firms in target industries for which data is available at this time. The acreage figures for some target industries are slightly different than those reported in the EOA. This reflects the additional research conducted on the site needs of target industries for this analysis.

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Electronics - Fab Plants	100 - 300	Suitable Soil
Electronics - Other	5 - 30	
Transportation Equipment	10 - 20	Flat
Trucking & Warehousing	varies	
Wholesale Trade	varies	
Non-Depository Institutions	1 - 5	
Business Services	1 - 5	
Health Services	1 - 10	
Engineering & Management	1 - 5	

Source: Woodburn Economic Opportunities Analysis, ECONorthwest, 2000.

There is a fair amount of variability between site requirements of different firms targeted in the Woodburn EOA. Parcel size varied from approximately 0.5 acres to 100+ acre sites. Placement of the firms ranged commercial to heavy industrial. Transportation, especially interstate access, was an important factor for almost all firms. While some firms needed to be close to customers, others site requirements included proximity to inputs.

The following sections describe the locational and site needs of typical firms in target industries.

Industry 27: Printing and Publishing

According to Steve Cody of the Printing Industries of America, approximately 75 percent of printing and publishing firms are small, family owned businesses with 15 or fewer employees. Site requirements for smaller firms are substantially different from the larger firms, which can employ 250 or more employees. The smaller firms can operate on relatively small parcels (approximately .5 acre) in buildings that are about 2,000 square feet. They generally locate within 20 miles of their clients, so access, in the form of a good, local transportation system, is key.

Larger firms generally run web presses and may run up to three shifts per day. They need electric utilities that offer good rates at all times, including peak and off times. Water utilities will also be an issue as the web presses are partially cooled by water. The web presses also use natural gas. Interstate and airport transportation will be a larger concern for large printers and publishers as their clients may be located throughout the United States and they may have rush jobs that must be delivered over night. They may also want rail access as they may ship paper in by the boxcar. Land requirements for larger firms are 20 to 30 acres minimum, not including buildings for administrative purposes.

Environmental concerns will also be an issue. Volatile organic compound (VOC) emission permitting laws will be a consideration. A variety of chemicals are used in the process and

the sewage process will become important as to how much processing printing waste must undergo. Septic systems are not able to handle the waste that the printing process produces. Sewage systems should be able to handle isopropyl alcohol.

It is difficult to find a printing labor force that is pre-trained. Most training is only available on the job. Many employers are looking for smart workers that are willing to start in an entry-level position and work their way up the ladder. Computer skills will be important for workers that are involved in pre-press activities, as these are almost entirely computerized.

Industry 32: Stone, Clay, Glass, and Concrete

There are three different types of glass production—flow, insulating, and coated glass. Each has different site and utility needs according to Jeff Petersen with Cardinal FG—a glass manufacturer in Michigan. Of these, flow glass has the most requirements. A significant and inexpensive supply of natural gas is critical to flow glass manufacturing as a typical firm can use up to 110,000 M BTUs per month. Additionally, a supply of good quality sand is essential to the manufacturing of flow glass.

Sites for flow glass manufacturing tend to be rectangular and approximately 65 acres. Flow glass manufacturing releases some pollutants, so there are a number of environmental issues that must be addressed and permits that must be obtained before a plant can initiate production. The community must be willing to have an industry that has a smokestack (though smoke does not necessarily come out of the stack, it is necessary to scrub the pollutants). These firms operate 24 hours per day.

Insulating and coated glass manufacturers do not require the large sites required by flow glass manufacturers—they generally need 20 to 25 acre sites and proximity to customers. Moreover, prevailing wage rates and unemployment rates will compute heavily into whether or not a location is suitable for a plant.

Freeway location and transportation issues are important to all types of glass manufacturing. Good access to the site is important for shipping reasons. Because of the fragile nature of glass, all roads must be paved.

Stone and concrete products firms are looking for 10-acre or larger sites, according to Keith Peal at Baker Rock Resources. These firms locate in heavy industrial sites and need room for a plant, a shop, truck loading and parking. Electricity and power are important utilities for these firms. Transportation facilities are also very important. Firms often look to locate satellite operations in rural areas. It is important for the firms to be located close to customers and be able to easily access them. Because they generate heavy truck traffic, staying out of residential areas is a concern.

Industry 34: Fabricated Metal Products, Except Machinery and Transportation Equipment

According to Mary Mallow of the Fabricated Metal Products Association, energy requirements will be one of the main criteria for selecting a location, especially for larger firms. Energy requirements vary between those operating large welding shops, as opposed to those with automated machines. Roughly half of the metal products shops have

approximately 10 to 20 employees and operate in relatively small shops. Access to different kinds of gas will also be important for many shops (other than natural gas).

David Hammerstein of the Oregon Precision Metal Fabricators Association commented on the negative effect the recession has had on this industry. Many metal fabricators make electronics and computer equipment and the downturn has affected the volume of work. Generally, these firms need sites that are five acres or less. Building sizes range from roughly 15,000 sq. ft. to 100,000 sq. ft. Basic utilities are needed for all shops, and manufacturers that paint their products need natural gas. Overall, fabricated metal products firms do not use an inordinate amount of electricity or natural gas.

Hammerstein noted that most production is relatively clean and there facilities could easily blend into a business park. Interstate access is beneficial, but not as critical as it is for many other industries.

Industry 35: Industrial and Commercial Machinery and Computer Equipment

Representatives of the Association for Manufacturing Technology felt there was such variety within this industry that it is almost impossible to generalize regarding site requirements. Firms range from computer manufacturers, to machine's that make rollerblades to tractors. Acreage requirements cover a vast range, as would utilities, transportation issues and labor force, depending on the type of product being produced.

Industry 36: Electronic and Other Electrical Equipment and Components, Except Computer Equipment

This industry has a variety of site needs. Businesses tend to locate in business parks or light industrial areas and generally have site needs of 5 to 30 acres. Electricity is important to manufacturers in this industry, but is not as critical as other electricity-intensive industrials. Good access is also an issue, but the products manufactured by this industry tend to be smaller and sites will not generate heavy truck traffic. This industry requires a mix of skilled and semi-skilled workers. Many of the training needs can be met through local community colleges, or on the job training.

Industry 37: Transportation Equipment

Transportation equipment includes manufacturing for passenger and cargo by land, air, and water. The vast majority of automobile manufacturers are located in the Midwest. According to industry representatives, auto parts manufacturers often locate adjacent to the auto assembly plant in order to ship parts as quickly as possible to the plant.

David Napier of the Aerospace Industries Association states that the most important factors for locating aerospace firms is access to a major airport or port. Shipment of large parts for airplanes, missiles, and space ships require large containers. Most aerospace parts firms want to locate close to an airport or port, or close to their major customers. Some parts are shipped via truck and interstate access would be important. While the workforce is fairly mobile, it is a fairly small and specialized group. Most training occurs on the job.

Industry 42: Motor Freight Transportation and Warehousing

One of the most important site location factors for motor freight transportation and warehousing is going to be the location of both customers and suppliers. Available labor, local taxes and overall business costs will then determine site determination.

Transportation in the form of access to a major interstate is critical to all firms in this category. Rail service may also be an important transportation factor.

A recent survey sited labor availability, costs, and quality as one of the main reasons for relocating or expanding into specific regions (this same survey placed the Northwest as the lowest priority for expansion, 10 percent).¹ Additional factors identified in the article are access to large markets, excellent highway system, centrally located, and a large labor pool. Larger companies have greater sensitivity to labor issues, and smaller companies rated labor costs, building and space availability and access to third-party logistics providers as key site selection factors.

According to Wally Weart, site selection consultant, motor freight transportation needs will vary depending on if the firm is a motor carrier, a less truckload (LTL), or a truck loader. A motor carrier needs the smallest amount of land, primarily used to park trailers or a garage to service trucks. They don't store goods and primarily relay trailers and change drivers. An LTL would need a 25-acre site for loading goods, parking, and loading. Truckload distributors also need large sites for handling goods and loading.

Industry 50: Wholesale Trade-Durable Goods and Industry 51: Wholesale Trade-Non-Durable Goods

These two industries are typified by extensive warehouse use. Buildings range from 10,000 to over 100,000 square feet. Such industries tend to be land intensive and have low employee-per-acre ratios. They require good transportation access, but water, sewer, and electricity demands tend to be low relative to other industries.

Industry 73: Business Services and Industry 61: Non-Depository Credit Institutions

Business services and non-depository credit institutions are most likely to locate in commercial zoned land. This could be located in a business park or in a downtown or mixed-use area. There is a wide range of site preferences, from very small (.5 acre sites) to large (20+ acres) for a corporate campus. Telecommunications are likely to be one of the most important utilities, as many businesses today require high speed Internet service.

According to Gunkemeyer et. al. one of the trends in site selection for business parks is for increasingly stringent standards. High-tech or corporate clients are attracted to locations with strict standards, which benefit the community as well by higher assessed property values, lower depreciation, and employers that pay higher average wages.²

Back office and customer service call centers are increasingly located in suburban or rural areas and also rely on good telecommunications utilities. These companies tend to look for a

¹ Mackay, John. "Getting the Goods on Distribution Sites." Area Development Online. August 2001.

² Gunkemeyer, Moss and Thomas. <http://www.rri.wvu.edu/WebBook/Thomas/development1.html#introduction>.

specific labor pool, low-cost leaseable space, reliable telecommunications and low local taxes.³ Areas with a mild climate are favored because of reduced power outages and employee absenteeism. Call centers tend to operate 24 hours per day and have a large employee base with high turnover, so a transient workforce near such areas as a university, large retirement community, or unemployed homemakers is viewed as favorable. Employee amenities including public transportation, shops and restaurants are also beneficial.

Industry 80: Health Services

Health service sites will vary depending on the kinds of activities being conducted, from very small clinics and doctor's offices, to large hospitals or research facilities. Smaller clinics may be able locate in certain commercial areas. Professional health service offices tend to desire close proximity to hospitals and often locate in commercial zones. Site requirements range from 0.5 acre to 5 or more acres depending on the scale of the operation. Good access is essential for patients.

Industry 87: Engineering, Accounting, Research, Management, and Related Services

Many of the businesses listed in Industry 87 can locate in commercial areas or business, high-tech, or science parks. Many of these services benefit from locating close to a major research university and may require a large capital investment. These sites tend to be highly specialized, and are not suitable in many locations. By bringing together university researchers and small entrepreneurs, many smaller companies can combine research and development facilities and costs.

According to Arend, typical research park occupants have unpredictable growth rates and need flexible lease options. This is an inherently risky sector, especially when start-up firms are involved. New facilities tend to have larger floor areas and are one to three stories tall. Biotech firms tend to have the largest space requirements. High quality water is often important for many of research companies. Building requirements for laboratories are different than office space and must be accommodated.

Quality of life issues may be more important for this sector than other sectors. Many firms that employ "knowledge" employees find quality of life factors as critical to recruiting an adequate labor force. Quality of life increases as a factor if a firm is relocating a large number of employees.

SUMMARY

Table 4 summarizes the number of sites by size class Woodburn will need to implement its economic development strategy. The land needs analysis concluded that Woodburn will need about 370 acres to accommodate 7,140 new employees between 2000 and 2020. Table 4 includes sites that total over 500 acres. Site needs can be conceived as a pyramid with few large sites at the top and many smaller sites at the bottom. Such a land inventory scheme is consistent with OAR 660-009 which requires cities to maintain an adequate inventory of sites.

³ Gunkemeyer, Moss and Thomas. <http://www.rri.wvu.edu/WebBook/Thomas/development1.html#introduction>.

The table identifies a need for five sites of 25 acres or larger. While inclusion of such sites in its land inventory will exceed the identified land need based on the medium range employment forecast, an adequate supply of sites will provide Woodburn more flexibility in its economic development efforts and by accommodating the siting requirements of industries targeted in the EOA.

Table 4. Summary of estimated site needs by size, Woodburn 2000-2020

Site Size (acres)	Number of Sites	Average Site Size	Estimated Acres
100 or more	1	125.0	125.0
50-100	1	70.0	70.0
25-50	3	35.0	105.0
10-25	5	15.0	75.0
5-10	7	8.0	56.0
2-5	10	4.0	40.0
Less than 2	15	1.0	15.0
Total/Average	42	11.6	486.0

Source: ECONorthwest

This hierarchy of need is consistent with the requirements of Goal 9 and OAR 660-009. Specifically, 660-009-0015(2) requires that "industrial and commercial uses with compatible site requirements should be grouped together into common site categories to simplify identification of site needs and subsequent planning." Moreover, 660-009-0025(1) requires plans to identify needed sites:

The plan shall identify the approximate number and acreage of sites needed to accommodate industrial and commercial uses to implement plan policies. The need for sites should be specified in several broad "site categories," (e.g., light industrial, heavy industrial, commercial office, commercial retail, highway commercial, etc.) combining compatible uses with similar site requirements. It is not necessary to provide a different type of site for each industrial or commercial use which may locate in the planning area. Several broad site categories will provide for industrial and commercial uses likely to occur in most planning areas.

Thus, the administrative rule that implements Goal 9 recognizes that sites designated for employment can accommodate different types of employment. This is made explicit in OAR 660-009-0025(2): "Plans shall designate land suitable to meet the site needs identified in section (1) of this rule. The total acreage of land designated in each site category shall at least equal the projected land needs for each category during the 20-year planning period."

Table 4 assumes that most site needs will be for industrial uses. Commercial and office needs will be met largely through infill and redevelopment, and public uses will be largely met on residential land. The analysis assumes that limited office and supporting commercial uses will be met on industrial lands. This is consistent with OAR 660-009-0025(2) which states "jurisdictions need not designate sites for neighborhood commercial uses in urbanizing areas if they have adopted plan policies which provide clear standards

for redesignation of residential land to provide for such uses." Discussions with City staff have identified a special need for a single commercial node the location of which has not been identified at this point.

Table 4 provides a preliminary allocation of land needed for employment by site size. It does not, however, address many of the other key issues required by Goal 9 and OAR 660-009-0025 (designation of lands for commercial and industrial sites). Good planning and state policy dictate that factors such as serviceability, access, proximity to markets, and other issues are considered when designating lands. Woodburn has already made many decisions that are reflected in its current comprehensive plan, comprehensive plan map, and zoning ordinance. Preliminary analysis, however, suggests that Woodburn will need to expand its UGB to accommodate future commercial and industrial uses. This provides both constraints and opportunities as the City reviews potential areas for inclusion in its UGB.

APPENDIX A: LITERATURE REVIEW

One of the objectives of Task 3 was to develop a better understanding of development trends for commercial and industrial lands. To accomplish this, ECO reviewed a number of Websites and articles to determine recent trends in site selection and factors cities should consider when developing business and industrial parks. We paid particular attention to sources that addressed specific site requirement concerns for the identified target industries. ECO identified two websites that pertain entirely to site selection: Site Selection Online (www.siteselection.com); and Area Development (www.areadevelopment.com). Many articles reviewed for this appendix were drawn from these two websites. The International Economic Development Council also has a wide range of information that was quite helpful (www.iedconline.org). Finally, one of the most comprehensive articles regarding community preparedness for industry recruitment by Gunkemeyer, Moss and Thomas, titled, "Community Preparedness for Site Development."

The literature suggests communities should address a number of issues when formulating a strategy to attract new industries. Competition for new and expanding businesses is fierce. Each year, over 15,000 U.S. communities compete for approximately 100 to 200 new major business construction projects.⁴ Most businesses locate in the same region and approximately 60% are due to expansion.⁵ Site selection criteria is driven primarily by site location, utilities, amenities, labor force, local taxes, and transportation factors.

The International Economic Development Council identified the following trends in site selection.⁶

- Cities and regional organizations are marketing via the Internet to encourage firms to locate in their area. Web sites offer extensive information about the community 24 hours a day, seven days a week and can be downloaded at any time from anywhere in the world.
- Each site location firm requires data be reported differently. Communities with quick, flexible data presentation capabilities have an advantage in the site selection process.
- One-stop permitting centers streamline the permitting process by issuing the necessary permits and licenses that a business needs to begin or expand operations.
- Performance-based incentives are used to attract businesses and assure taxpayers that they will recoup public investments like tax abatements, land write-downs, etc.

⁴ International Economic Development Council. "Economic Development Reference Guide," <http://www.iedconline.org/hotlinks/SiteSel.html>. 10/25/02.

⁵ Ibid.

⁶ Ibid.

- States and cities are mapping their technology infrastructure, such as fiber optic networks, to help firms identify specific locations with access to needed technology resources.
- The availability of skilled workers is a high priority, sometimes more so than financial incentives. High-tech firms are seeking to be near universities and community colleges with solid technology programs.
- Buildings are being retrofitted with fiber optic cable to attract tenant firms, especially small technology firms that need fast, high-bandwidth connections to the Internet.
- Utilities work closely with local and state governments to help companies choose new sites, with the added advantage of being privately held.
- Attracting and retaining skilled workers requires that firms seek out places offering a high quality of life that is vibrant and exciting for a wide range of people and lifestyles.
- Remediated brownfields can offer large tracts of open land in or near to center cities. Remediation usually occurs with the use of redevelopment incentives for manufacturing and some retail uses.
- Geographical information systems (GIS) provide dynamic site selection information including available properties, demographics, and business analysis.
- Site location professionals conduct 30% to 55% of all site selection searches, creating demand for new U.S. and international site location consulting firms.
- Back office locations are increasingly moving from urban areas into suburban and even rural areas, taking advantage of lower wage and office costs.

The International Economic Development Council has created a site selections standard spreadsheet to help communities collect the information that industries are looking for during the site selection process. By having site data organized and readily available, communities can easily respond to industry requests for site criteria. They estimate the amount of time firms take has decreased from six months to about 45 to 60 days. Communities have to be ready to respond to requests for information on very short notice, and different firms need different kinds of information.

According to Gunkemeyer et. al. data preparation is key to responsible fiscal economic development policy, "the more a community considers site-selection criteria before it selects or develops a particular site for promotion, the lower the likelihood becomes that local leaders will need to explain why they spent so many public dollars on a site that is drawing

no interest.”⁷ The authors provide a detailed module to help communities prepare for industrial and warehouse site development.

They highlight a number of factors that must line up for a site to be considered ready for development.⁸ One of the most important factors is transportation and accessibility of the site. Whether shuttling employees to work, bringing in raw materials, or shipping final products, transportation facilities including easy freeway access to rail or airport facilities, are critical in firm site selection decision-making.

Available labor force is another key factor, often quantified by commuting patterns. “An average of 30 minutes one way for production workers, 20 minutes one way for clerical workers, and 43 minutes one way for technical and professional workers is a normal standard.”⁹ Firms also review turnover rates, productivity levels, types and amount of skilled workers for their industry in the area, management recruitment, and other labor force issues in a potential site area.

Adequate water, sewer, power, telecommunications and other key utilities are often threshold factors for many industrial manufacturers. The reliability and ability for growth are important for many industries. Not only should utilities be in place or planned for, the land should be zoned appropriately for the type of use being recruited. Project delays due to rezoning issues can be costly to the potential firm, something they are looking to avoid. Along with proper zoning, incompatible uses should be located in other areas or properly buffered.

Additional factors include clear ownership of appropriate parcels, appropriate topography, and soil conditions that are relatively flat with good drainage. Proper zoning as well as parcel size and shape are factors in site selection. Researchers note that many firms look at site requirements first, incentives second. Finally, additional studies that assess the environmental condition or archeological resources may save time for the firm being recruited and make the site more attractive.

Site-seeking employers are interested in reducing their risks, which Gunkemeyer et. al. separate into four categories; profit, workforce, infrastructure, and timing. Firms are looking for a reasonable rate of return. A general rule of thumb is for a company to show a return on their investment within 6 to 10 years. Communities can make their sites more competitive by providing incentives such as tax inducements related to job creation or low- or no-interest loans that help to reduce the company’s profit risk and decrease the time before they see a return on their investment.

Firms are also looking at reducing their workforce risk, that is, employers want to be assured of an adequate labor pool with the skills and qualities most attractive to that

⁷ Gunkemeyer, William, Myra Moss and Jerold R. Thomas, “Community Preparedness for Site Development,” Ohio State University Extension. <http://www.rrl.wvu.edu/WebBook/Thomas/development1.html#introduction>. 10/25/02.

⁸ Ibid.

⁹ Ibid.

industry. Communities can address this concern with adequate education and training of its populace.

Infrastructure risk is another factor that firms look into for current and future needs. They may not risk a location if utilities, such as water or electricity, are not deemed reliable or excess capacity is unavailable for possible expansion. Additionally, fire, police, and waste management services must meet minimum requirements for many firms. Communities that invest in these services show prospective employers a track record that should project into the future.

Timing is everything—especially in today's fast-paced environment, where firms are looking to break ground within 90 to 120 days of making a location decision. It is beneficial for the firm to begin revenue-producing activities as soon as possible, to counterbalance start-up and construction costs. Firms are looking to take advantage of market opportunities and fulfill promises to clients.

In a recent survey, 127 firms ranked the top factors in order of importance for choosing a site and a community:¹⁰

- Availability and skill level of labor force
- Pro-business government
- Corporate income tax rates
- Good roads and transportation
- Real estate prices and property taxes
- Educational system
- Proximity to customers
- Personal income tax
- Colleges and universities
- Proximity to suppliers
- Healthy "downtown"
- Proximity to competition

Investments in education and infrastructure are two incentives that a community can offer a firm looking to relocate or expand, that have long lasting benefits for the community. The local high school or college can offer classes that are specific to skills needed for the local

¹⁰ Gunkemeyer, Moss and Thomas. <http://www.rri.wvu.edu/WebBook/Thomas/development1.html#introduction>.

business, or offer facilities. Infrastructure improvements such as roads, sewer, and water may be more beneficial to potential firms.

Business, Research, and Industrial Parks

Gunkemeyer et. al. notes the importance of business and industrial parks as preparation for attracting new business and not trying to "sell from an empty wagon." The authors state that communities must establish clear goals and objectives for their proposed development parks.

"Parks and sites should have, at a minimum, preliminary engineering plans for the location of utilities and infrastructure, a site plan showing the size and configuration of individual parcels within the property (which can be modified to suit an individual company's needs), preliminary environmental and historical assessments, and stated general conditions related to the sale or lease and use of the property."¹¹

Arend notes that many business parks are capitalizing on smart growth principles that include minimizing the impact of the park on the local environment and community. Some parks incorporate naturally wooded areas into their developments. Employment centers built around a transit node benefit employers and employees in reducing commuting costs and releasing land from parking requirements.

The minimum size of a park is generally about 25 acres, however, depending on the industries being courted, a much larger park may be needed. As well, a larger site may be needed to justify preliminary engineering, environmental reports, and utility and infrastructure construction. The trend is for firms to locate in parks with stricter development standards, which are seen as safeguards to protect the company's investment by ensuring that the neighbors in the park will be kept to the same standards.

Heavy industrial and contractor uses will be looking for sites with no performance standards that often have unpaved roads, very basic utilities and outdoor storage is often uncovered or fenced. Basic performance standards are attractive for parks targeting heavy and medium industrial uses. Roads are normally paved and utilities are provided. It is allowable, in general, to build metal buildings. Moderate performance standards are conducive to medium to light industry and allow mixed-uses with buffers and some landscaping requirements. Off-street parking and loading docks are common. There are generally some architectural criteria for buildings.

The most restrictive business or industrial park has advanced performance standards with an emphasis on aesthetics. Grounds tend to resemble a "park" with low density, required landscaping, no outdoor storage, and offices with light versions of manufacturing, warehousing, or distribution operations permitted. Corporate campuses often have advanced performance standards.

Gunkemeyer et. al. outlines a strategy for developing a site that includes a feasibility assessment, completion of an engineering study and development of a market strategy.

¹¹ Gunkemeyer, Moss and Thomas. <http://www.rri.wvu.edu/WebBook/Thomas/development1.html#introduction>.

They also address costs of developing commercial and industrial sites, including site acquisition, planning and design fees, infrastructure costs, and financing costs. These fees may or may not be paid by the City.

One of the newer trends in industrial and business parks is a move towards sustainability and environmentally friendly developments. Will Denecke with Opus Development noted that parks in the Portland Metropolitan Area are incorporating more green amenities than in the past. He noted that this tends to increase the cost of parks, which is passed on to tenants. Increasingly, business owners and managers are looking for developments that incorporate environmentally friendly aspects in both design and in the relationship between the tenants of the park.

One of the goals of eco-industrial development is to work with firms to cut consumption of raw materials and exchange and recycle waste products. By connecting the firms that locate in an industrial park, supporters are hoping to mimic nature with environmentally friendly returns. These parks look to cut costs for transportation, disposal, and resources. Companies pool resources to share environmental management, waste recycling, marketing, and product development. This type of planning takes extra effort, but may benefit the community, as well as park occupants. By creating a niche, as an eco-industrial park, the community offers a unique location to firms that are concerned with their environmental image and practices.

Real estate and developer interviews

According to **Greg Specht**, most firms, regardless of industry, are looking for a number of amenities, including:

- Range of parcels between 5 and 50 acres. Larger parcels are particularly attractive because of the lack of availability in the Portland metropolitan area.
- Properly zoned land
- Sites readily available
- No environmental issues
- Flat topography
- Minimal barriers to development
- The master plan should allow for businesses that cater to industry workers, including retail, restaurants and gas stations for industry workers and activities.
- Good freeway access

One of his strongest recommendations was to create an expedited regulatory process. To implement this process, the City of Woodburn should assign a dedicated staff person to each application and allow for a fee for an expedited review. Expedition can take the form of paying a double fee to have the application reviewed by an outside engineering firm

approved by the city. Specht believed the City of Beaverton does this. He believed it would be a boon if the City could guarantee permit processing within 60 days.

A second recommendation focused on assembling large parcels. The City of Woodburn may want to consider assembling City owned parcels similar to the Portland Development Commission and reselling to industry. Assemblage may need to take the form of condemnation, if necessary.

Stu MacAdam of MacAdam Forbes believes that big box distribution warehouses will be the most likely industry to locate in Woodburn. He felt it is essential to preserve 100,000 sq. ft. or larger parcels that are close to the freeway will help entice these industries to town. He felt that Willamette Valley labor force and land cost issues are important factors for site location. In his estimation, Woodburn has a good labor force and they will have a comparative advantage to Portland metropolitan area locations if they can compile large parcels, as the Portland area is perceived as running out of large sites.

Will Denecke of Opus Development provided insight into office and industrial park developments. He noted that many parks in the Portland Metro area are incorporating more pedestrian and bicycle access, as well as overall environmental amenities, such as onsite detention and less impervious surface. Tenants are requiring high-speed Internet access and reliable power at high quantities are also important.

EXHIBIT 4-I

4-I

**CITIZEN INVOLVEMENT
REPORT**

Citizen Involvement Report
City of Woodburn 2005 Comprehensive Plan Update
LCDC Periodic Review Work Order #00784, Work Task #10
Unacknowledged Tasks
October 2005

This report is provided to demonstrate compliance with Work Task #10 of Oregon Land Conservation and Development Commission Periodic Review Work Order #00784. Work Task #10 states:

“Citizen involvement throughout the periodic review process will comply with the provision within the Comprehensive Plan. The planning commission will serve as the citizen advisory involvement committee.

The city will maintain an interested parties mailing list and provide written notification. This task will be completed by submittal of a citizen involvement report.”

The provision within the Comprehensive Plan that addresses citizen involvement states:

“It is the policy of the City of Woodburn to solicit and encourage citizen input at all phases of the land use planning process. Since the City is essentially trying to plan the community in accordance with the community’s desires, it is essential that the community be consulted at all stages of the planning program to insure decisions are in accordance with the community’s benefit.” (Chapter IX – E. Citizen Involvement Policies)

The City of Woodburn updated its Comprehensive Plan pursuant to LCDC Work Order #00784 approved July 30, 1997. The work program is extensive and it took the City over seven years to complete all tasks. The City solicited Citizen involvement in all phases of completing the work tasks. An interested parties mailing list was created at the beginning of the work program and was maintained and used to notify interested parties of citizen involvement opportunities throughout the planning process.

A list of citizen involvement opportunities throughout the periodic review planning process is provided below and is organized by work task.

Task 1.a – Buildable Lands Inventory

- A Buildable Lands Citizen Advisory Committee consisting of nine citizens was appointed by the City Council to guide development of a Buildable Lands Inventory. The committee met about 16 times between December 1998 and September 1999.
- Four public workshops were held concerning the Buildable Lands Inventory between March 1999 and September 1999.

- The Planning Commission held two work sessions concerning the Buildable Lands Inventory in February and May 2000.
- The City Council discussed the Buildable Lands Inventory at three meetings between May and July 2000 and held one work session in July 2000.
- Citizen involvement concerning the development of the revised Buildable Lands Inventory completed by Winterbrook Planning in 2005 is addressed under Task 7.

Task 2 – Commercial and Industrial Lands Inventory

- The City Council held two work sessions in May 2001 to consider the draft Economic Opportunities Analysis.
- The City Council held a public meeting in June 2001 to consider the Economic Development Strategy.
- Citizen involvement concerning amendments to the Comprehensive Plan and Woodburn Development Ordinance resulting from this task is discussed under Task 7.

Task 3.a – Update Public Facilities Plan

- Citizen involvement concerning this task is discussed under Task 7.

Task 3.b – Revise Transportation System Plan (TSP)

- A public open house was held at Senior Estates in May 1999 to review Highway 214 improvement alternatives.
- The City Council and Planning Commission held a joint work session in June 1999 to review Highway 214 improvement alternatives.
- The City Council held a public hearing in July 2000 to consider the Woodburn I-5 Interchange Refinement Study.
- The City Council and Planning Commission held a joint work session in November 2003 to provide direction on land use alternatives to be used in the model for the TSP Update.
- A public open house was held in January 2004 to review the draft TSP.
- Two public open houses were held concerning proposed periodic review amendments including the draft TSP in April 2004.

- A public open house was held at Senior Estates in July 2004 to review the draft TSP.
- The City Council and Planning Commission held three joint work sessions in June, September, and December 2004 respectively, to review the draft TSP.
- A public hearing to consider proposed periodic review amendments including the TSP was held by the Planning Commission on February 3, 2005. Additional written testimony was accepted until February 10, 2005.
- A public hearing to consider proposed periodic review amendments including the TSP was held by the City Council on March 28, 2005. Additional written testimony was accepted until April 20, 2005. At the City Council Meeting of April 25, 2005, the Council began deliberating on the proposed amendments and then continued its deliberations to allow staff to respond to the testimony received by the April 20, 2005 deadline. At its June 13, 2005 meeting, the Council continued deliberating and decided to accept additional written testimony with a June 27, 2005 deadline. Staff responded to the additional written testimony at the City Council Meeting of July 25, 2005. The Council continued deliberating on the proposed amendments until the September 12, 2005 City Council Meeting. At the September 12, 2005 City Council Meeting, the Council continued deliberating until the September 19, 2005 Special City Council Meeting. At the September 19, 2005 Special City Council Meeting, the Council instructed staff to prepare an ordinance adopting the periodic review amendments (Legislative Amendment 05-01). The Council adopted the periodic review amendments ordinance (Legislative Amendment 05-01) at the October 31, 2005 Special City Council Meeting.

Task 4 – Wetlands, Inventory, and Natural Resources Study

- A public open house was held in July 1998 to review the initial wetland inventory. Notification of the open house was mailed to all property owners within the UGB.
- A public open house was held in November 1998 to review the final draft Local Wetlands Inventory. Notification of the open house was mailed to all property owners within the UGB.
- Citizen involvement concerning amendments to the Comprehensive Plan and Woodburn Development Ordinance resulting from this task is discussed under Task 7.

Task 7 – Changes in Goal/Objective, Unanticipated Events (This task involves amending the Comprehensive Plan text and map, zoning ordinance, zoning map, and expanding the urban growth boundary consistent with the findings of Tasks 1-6. Citizen involvement concerning the processing of these amendments is discussed below).

- The Planning Commission and City Council held a work session concerning proposed periodic review amendments in November 2003.
- Two public open houses were held concerning proposed periodic review amendments in April 2004.
- The Planning Commission held four work sessions concerning proposed periodic review amendments in November and December 2004.
- Notice of public hearings to be held before the Planning Commission and before the City Council was mailed to all property owners within the City of Woodburn and within the study area for UGB expansion in compliance with Measure 56 requirements. The proposed amendments were posted on the City's web site and were made available for public review at the City Library and City Hall.
- A public hearing to consider proposed periodic review amendments was held by the Planning Commission on February 3, 2005. Additional written testimony was accepted until February 10, 2005.
- A public hearing to consider proposed periodic review amendments was held by the City Council on March 28, 2005. Additional written testimony was accepted until April 20, 2005. At its June 13, 2005 meeting, the City Council continued deliberating and decided to accept additional written testimony with a June 27, 2005 deadline. Staff responded to the additional written testimony at the City Council Meeting of July 25, 2005. The Council continued deliberating on the proposed amendments until the September 12, 2005 City Council Meeting. At the September 12, 2005 City Council Meeting, the Council continued deliberating until the September 19, 2005 Special City Council Meeting. At the September 19, 2005 Special City Council Meeting, the Council instructed staff to prepare an ordinance adopting the periodic review amendments (Legislative Amendment 05-01). The City Council adopted the periodic review amendments ordinance (Legislative Amendment 05-01) at the October 31, 2005 Special City Council Meeting.

Task 9 – Planning Coordination

- Citizen involvement concerning this task is discussed under Task 7.

EXHIBIT 5-A

5-A

FINDINGS OF FACT



City of Woodburn
Periodic Review and Urban Growth Boundary Amendments

FINDINGS OF FACT
GOALS 1, 2, 3, 4, 5, 6, 7, 8, 11, 12, 13

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Introduction & Background

Periodic Review and General Update to Comprehensive Plan

Woodburn's 1997 periodic review work program calls for substantial review of its comprehensive plan and implementing regulations. Woodburn earlier completed, and LCDC acknowledged, work tasks 5 and 6. This 2005 decision concludes all the remaining work required in the work program. The final products of the work tasks are amendments to the comprehensive plan text and map, Woodburn Development Ordinance and zoning maps, and the Transportation System Plan.

In addition to the periodic review work, this 2005 decision includes some comprehensive plan map and zoning map amendments that are "housekeeping" corrections. Those corrections include situations where the zoning and comprehensive plan designation for a property are inconsistent, where properties were bisected by plan and/or zone boundaries, or where the plan and/or zone designation did not appear appropriate when considering surrounding uses and potential for redevelopment.

New and Amended Ordinances

The Periodic Review adopted amendment package includes an ordinance that amends the following:

1. City of Woodburn Comprehensive Plan Text.

The Woodburn Comprehensive Plan text is reorganized and updated. New and amended provisions are included on the following elements of the Comprehensive Plan:

- a. Agency involvement,
- b. Residential land use,
- c. Industrial land development and employment,
- d. Commercial land development and employment,
- e. Growth management and annexation,
- f. Transportation,
- g. Public facilities,
- h. Natural and cultural resources,
- i. Downtown design,
- j. Parks and recreation, and
- k. Energy conservation

The Council adopted additional documents as elements of the Comprehensive Plan. These are:

- a. Woodburn Economic Development Strategy, ECONorthwest (2001)

- b. Woodburn Transportation System Plan, CH2Mhill (2005)
- c. Woodburn Public Facilities Plan (2005)
- d. Local Wetlands Inventory, Shapiro & Associates (2000)

2. City of Woodburn Comprehensive Plan Text and Map

- a. The UGB was expanded in five areas
 - i. South exception area (Highway 99E)
 - ii. West exception area (Butteville Road)
 - iii. Northeast exception area (Highway 99E)
 - iv. North resource area consisting of part of the Tukwila Golf Course and single family residential area
 - v. Southwest resource area including planned industrial, mixed use and single family residential areas
- b. Application of a mixed use nodal development zone to the southwest UGB expansion area and land within 2002 UGB
- c. Change in plan designations within the 2002 UGB to maximize efficient use of land.
- d. Application of an Interchange Management Area Overlay
- e. Application of the Riparian Corridor and Wetlands Overlay District to protect stream corridors, wetlands and 100-year floodplains
- f. "housekeeping" amendments to change in zone designations throughout the City to more appropriate designations to:
 - i. Make a single zone designation on a parcel,
 - ii. Make zoning more consistent with surrounding parcels,
 - iii. Make zoning consistent with plan,
 - iv. Remove open space designation from private property,
 - v. Be consistent with use,
 - vi. Change designation of public property to P-SP,
 - vii. Provide commercial use on Young St.,
 - viii. Provide multi-family designation in older lower quality residential area

3. City of Woodburn Development Ordinance text

- a. Included the following new zoning districts
 - i. Nodal neighborhood commercial overlay district (NNC)
 - ii. Nodal overlay districts (single family, multifamily and neighborhood commercial)
 - iii. Southwestern Industrial Reserve Overlay District (SWIR)
- b. New minimum density standards for RS, R1S and RM zones
- c. Reduced lot width and depth standards, RS zone
- d. Reduced lot width and street frontage standards in R1S zone
- e. Reduced minimum lot area for duplexes in RM zone
- f. Changed Significant Wetlands Overlay District (SWOD) to Riparian Corridor Wetlands Overlay District (RCWOD); adds protection to riparian corridors, undeveloped floodplains as well as significant wetlands.
- g. Established Interchange Management Area Overlay District

4. City of Woodburn Zoning Map

- a. Included the following new zoning districts
 - i. Nodal Neighborhood Commercial district (NNC)
 - ii. Nodal single family district (RSN)
 - iii. Nodal multifamily district (RMN)
 - iv. Southwestern Industrial Reserve District (SWIR)
- b. Changed Significant Wetlands Overlay District (SWOD) to Riparian Corridor Wetlands Overlay District (RCWOD)
- c. Added a new Interchange Management Area (IMA) Overlay

Summary of Decisions

Woodburn considered several expansion alternatives and analyzed several measures to increase the intensity and efficiency of land use within the UGB. To increase efficiency of use of the buildable land within the UGB, the City adopted a new minimum density requirement and adopted four new overlay plan designations and zone designations:

1. Low Density Residential Nodal Development Overlay (RSN)
2. Medium Density Residential Development Overlay (RMN)
3. Commercial Nodal Development Overlay (NNC)
4. Southwest Industrial Reserve Overlay (SWIR)

The two residential nodal overlay districts (RSN and RMN) encourage neighborhood-serving commercial developments surrounded by well-designed multi-family, attached single family (row houses) and small lot single-family development, with active and accessible parks. They provide a community identity and services to higher density, nodal residential development within walking distance (generally one-half mile or less) of the center. Nodal development will be designed with a pedestrian focus, with interconnected streets and pedestrian walkways, alleys serving garages located at the rear of lots, and with limited parking. Master plans are required for land within Nodal Overlay districts.

The Nodal Neighborhood Commercial (NNC) district permits all uses permitted in the Downtown Development and Conservation zone (DDC). It is intended to serve the routine daily needs of nearby residents and employees, and be accessible to pedestrians and bicyclists, as well as automobiles. This district also permits residential development above ground floor commercial.

The Southwest Industrial Reserve District (SWIR) protects sites included within the UGB and designated for industrial use for the exclusive use of targeted industries identified in the Woodburn Economic Opportunities analysis (EOA). This objective is accomplished by requirements for master planning, retention of large industrial parcels, and restricting non-targeted industrial land uses.

To satisfy Goal 5 requirements to protect natural resources, Woodburn adopted a new Riparian Corridor and Wetlands Overlay District (RCWOD). It protects riparian corridors, wetlands, and 100-year floodplains. The RCWOD follows the Goal 5 "safe harbor" provisions outlined in OAR 660, Division 23.

Other efforts that Woodburn took to encourage growth within the 2002 (pre-amendment) UGB and to encourage efficient use of land within the expanded 2005 UGB are summarized below.

- The Woodburn Comprehensive Plan (2005) and WDO provide opportunities for densities above 10 dwelling units per net buildable acre outside of highly parcelized exceptions areas.
- Except for the developed MacLaren Youth Correctional Facility and a cemetery located south of town, all exceptions areas adjacent to the UGB are included within the expanded 2005 UGB.
- Infill and redevelopment were relied upon to meet most commercial land needs. Commercial plan amendments are virtually prohibited near Interstate 5.
- Liberal assumptions regarding redevelopment of commercial land, "infill" on residential land, and the availability of undeveloped portions of existing industrial land were applied.
- Measures were adopted to ensure that industrially-designated land within the Southwest Industrial Area (SWIR) is retained in agricultural use until targeted employer requirements are met.
- The SWIR and the Parr Road Nodal Development Area require master planning before annexation and provision of urban services.
- Minimum density requirements for all residential land were adopted.

Woodburn decided to pursue a strong economic growth strategy that is supported by the Economic Opportunities Analysis (EOA) and the adopted Economic Development Strategy (EDS). Such a strategy is encouraged by ORS 197.212 and the Goal 9 Rule (OAR 660, Division 009). These state laws require cities "to identify the types of sites that are likely to be needed by industrial and commercial uses which might expand or locate in the planning area." These requirements do not require the City's planning for economic growth to be based on the City's population projections. The EOA makes it clear that Woodburn lacks the types of sites necessary to attract basic employment to Woodburn, and that provision of suitable sites for such employment likely will lead to employment growth. Woodburn's strategy includes improving the socio-economic level of the community and providing local jobs for local residents. The amendments provide sites that correspond directly to the EOA and a subsequent and more specific memorandum prepared by ECONorthwest in October 2003, titled "Site Requirements for Woodburn Targeted Industries." The Southwest Industrial Area (SWIR) includes one 100-

acre site that is reserved for a single user and which, under the SWIR regulations, cannot be further divided. Other parcels must be retained in sizes sufficient to meet the size needs of targeted industries. Woodburn is providing an opportunity for target industries to locate in Woodburn, a variety of industrial sites to allow for different types of target industries, and choice in the marketplace.

Marion County maintains large lot sizes through EFU zoning for large vacant parcels within the unincorporated urbanizable area. In the SWIR and Parr Road Nodal Development area EFU zoning will continue to apply until a master plan showing maximum efficiency of land use has been approved by the City, the land is annexed, and urban zoning has been applied.

Woodburn has five existing exceptions areas adjacent to the 2002 UGB:

- Butteville road rural Residential Exception Area (155 gross acres)
- Northeast (Hwy 99E) Rural residential Exceptions Area (12 gross acres)
- MacLaren School Institutional Exceptions Area
- Southeast (Hwy 99E) Commercial Exceptions Area (13 gross acres)
- Southeast (Hwy 99E) Residential Exceptions Area (21 gross acres)

Except for the MacLaren School (a state juvenile detention facility) and an existing cemetery, all non-resource land (i.e., areas that already had an exception taken) adjacent to the Woodburn UGB were included within the expanded UGB.

Only two of the exception areas contain land that is usable for new development – the residential exception area to the northwest and the commercial exception area to the south. Both of these exception areas were included in the UGB to help meet 2020 residential and commercial needs. The residential exception areas contain 107 net buildable acres, but due to the existing parcelization and development pattern, this land is not very efficient for meeting residential needs. The commercial exception area contains buildable acres that were applied toward 2020 commercial needs.

Residential UGB expansion into the North and Southwest study areas

The amended 2005 UGB includes land to the north and southwest of the 2002 UGB to meet 2020 residential needs. This expansion area includes part of the developed Tukwila Golf Course, and is designated as Single Family Residential (SFR) on the amended 2005 Comprehensive Plan Map. It is expected to meet both SFR needs as well as some park and school needs.

Residential expansion to the southwest includes lands designated Single Family (SFR) and Medium Density Residential (MDR) on the 2005 periodic review amended Comprehensive Plan

Map. Much of the residential expansion in the southwest is within the Parr Road Nodal Overlay area.

The need for low density infill housing will be accommodated to a limited extent within the Butteville Road, Northeast and Southeast Rural Residential Exception Areas. The Northeast Rural residential Exception Area is fully developed for urban low density residential uses and has no remaining development capacity. However, by including this area within the UGB, the City now has the ability to provide full urban services and facilitate possible redevelopment, thus meeting a livability need.

The need for institutional growth cannot be met by the MacLaren School exceptions area. This state facility already has urban services and is not available to meet long-term institutional needs in Woodburn.

The need for highway commercial uses will be met to a limited extent within the Southeast Commercial Exception Area. This area has a range of low-intensity development uses. The Council plans for this and other "strip commercial" properties along Highway 99E to redevelop over time, reducing the need to designate new commercial areas.

Commercial Expansion

The Council deliberately under-allocated commercial land to encourage redevelopment along Highway 214, Highway 99E and in Downtown Woodburn. Woodburn assumed that most future commercial employment would be located on existing commercial lands through intensification and redevelopment. New commercial uses are located within the residential expansion areas to the north and southwest of the 2002 UGB and are designed to be neighborhood-serving development.

Industrial Expansion

The amended UGB includes lands to the west and southwest of the 2002 UGB to meet 2020 industrial site suitability needs. These lands are part of the Southwest Industrial Reserve (SWIR), which has been reserved exclusively for meeting industrial site needs identified in the EOA, will maintain large parcel sizes, and will require master planning to develop.

Parr Road Nodal Overlay Area

The vast majority of Woodburn's vacant residential land supply is in the southwest portion of the 2002 UGB. As this land is not yet developed, it provides a unique opportunity to combine vacant land within the existing UGB with land to the north of the proposed Southern Arterial, to create a mixed-use nodal area. The intent of the Nodal Overlay is to allow for pedestrian-friendly, higher density single- and multi-family residential development surrounding a commercial center. This will have several long-term advantages for Woodburn including efficient urban development, reduced public facilities costs, compact urban form, and reduced

transportation costs for residents. It is also close to future industrial employment opportunities, additional shopping, and present and future parks and schools.

Mixed-Use Areas

One of the measures adopted to achieve higher densities within the 2002 UGB is the creation of the Nodal Development Comprehensive Plan Overlay (NDO) for use on Commercial lands within the Parr Road Nodal Overlay area. Expected development within the NDO includes housing above commercial in the form of apartments or condominiums. The NDO provides opportunities for intensification of commercial land use and increased residential densities close to urban commercial amenities.

Transportation System Plan Update - Transportation System Extension

The Periodic Review decision package includes an updated Woodburn Transportation System Plan (2005) (TSP), which the Council adopted as a functional element of the 2005 amended Woodburn Comprehensive Plan. Updating the transportation element of the Comprehensive Plan was Task 3B of the periodic review work program. In addition to fulfilling periodic review requirements, planning for near- and long-term transportation system needs was a priority of the City.

The 2005 Woodburn TSP describes improvements to existing transportation facilities, as well as proposed new facilities that will support the Comprehensive Plan and UGB amendments. To the north, Crosby Road is shown as improved to minor arterial standards. This will provide a buffer between residential expansion south of Crosby and agricultural land north of Crosby, as well as support residential development in the northern expansion area. To the west, the TSP shows Butteville Road as an arterial street that will eventually connect with the "South Arterial." These two arterial streets are needed to provide access from Southwest Woodburn to the I-5 interchange. In the southwest, the 2005 Woodburn TSP shows extensions of Evergreen Road and Stacey Allison Drive, which will support and serve the industrial expansion area. A new "South Arterial" is shown as running from Butteville Road, across the southern edge of the existing UGB, to Highway 99E on the east side. This South Arterial will provide a vital east-west connection from Highway 99E to I-5, and will support southwest industrial uses as well as new residential development in the Parr Road Nodal Overlay Area.

Public Uses

The amended Comprehensive Plan and UGB includes the opportunity for development of needed parks and schools in the residential expansion areas. In the northern expansion area, there is expected to be at least one community park and an elementary school to serve residential expansion. In the southwest, an existing community park can expand into new residential lands. Near the commercial section of the Parr Road Nodal Overlay area, there is an opportunity to create an urban plaza to serve both surrounding MDR residents as well as commercial consumers.

This document together with the Woodburn UGB Justification Report, shows how Woodburn has satisfied its Periodic Review Work Program and complied with all applicable statewide goals, statutory and administrative rule requirements. Where a requirement applies, generally, the requirement is quoted and set out in *bold face and italics*, followed by the City Council's findings on that requirement.

PERIODIC REVIEW WORK TASKS COMPLETED

LCDC approved a periodic review work program for Woodburn on July 31, 1997. The work program is extensive, containing nearly all the tasks essential to completing an initial comprehensive plan. Woodburn previously completed and DLCD acknowledged a few work tasks. This project completes all of the remainder.

POPULATION GROWTH PROJECTIONS.

A subtask that is common to Work Tasks 1.A (buildable lands inventory), 2.B. (commercial and industrial lands inventory) and 3.A. (update facilities plan) requires Woodburn to coordinate with Marion County for a population allocation upon which Woodburn should base its work in those tasks. Marion County, on November 24, 2004, adopted a coordinated population of 34,919 to the City of Woodburn. This population forecast was based on a population projection prepared by ECONorthwest that considered the likely growth effects of a successful economic development program. However, even without such a program, as observed by Housing Analyst Richard Bjelland, the coordinated population projection likely under-estimates population growth in Woodburn.

Amend Comprehensive Plan and Regulations -- Overview

The final subtask for each work task requires Woodburn to adopt comprehensive plan policies and regulatory provisions resulting from work done in completing other subtasks. The periodic review decision package includes amendments to the comprehensive plan text and map. The Comprehensive Plan was amended in both nonsubstantive and substantive ways.

Nonsubstantive changes include:

1. Background documents were separated from policy choices, so that a comprehensive plan amendment will not be required if a change is made to background studies.
2. Narrative statements were updated and edited for clarity.
3. The sections of the plan were reorganized.
4. The goals and policies were amended to reflect the policy choices resulting from the periodic review work and for clarity.

Substantive changes include:

1. The UGB was expanded to include sufficient land to meet 2020 growth needs.
2. New urban plan designations were placed on land added to UGB.
3. A Nodal Development overlay designation was added. A Nodal residential area has a commercial center surrounded by a higher density area and design standards.
4. An industrial reserve area was designated in the southwest part of the expanded UGB, which is key to implementing Woodburn's economic development objectives, including protections to assure its use for targeted industries:
 - a. Reserve for use of target industries
 - b. Maintain large lot sizes
 - c. Prohibit commercial rezoning
 - d. Provide access to I-5
 - e. Require master planning
5. The transportation system plan was amended.

The amendments to the comprehensive plan will:

1. Allow on average up to 10.6 dwelling units per net buildable acre outside of exception areas.
2. Provide a residential mix of 60% single family and 40% multiply family.
3. Protect industrial reserve area.
4. Assure that residential developments will be at least 80% of allowed density.
5. Provide for infill and redevelopment.

WORK TASK 1.A. Buildable Lands Inventory

Work task 1a of Woodburn's periodic review program required Woodburn to complete a buildable lands inventory. The Council adopted Technical Report 1, Buildable Lands Inventory as a background document to the 2005 amended Woodburn Comprehensive Plan.

Subtask 1.A(3) – Demographic, Economic, Transportation trends

Work Task 1A(3) required Woodburn to “document recent demographic, economic and transportation trends impacting residential land.”

This work task is satisfied by the completion of:

1. Woodburn Economic Opportunities Analysis,
2. Woodburn Economic Development Strategy,
3. Technical Report 2, Woodburn Residential Needs Analysis, and
4. Woodburn Transportation System Plan (2005).

Subtask 1.A.(4) – Housing Needs Analysis

Analyze demand for residential land/prepare housing needs analysis, pursuant to Goal 10, coordinate with surrounding jurisdictions to address low income housing needs.

Work task 1.A.(4) was satisfied by Technical Report 2, Woodburn Residential Land Needs Analysis. This report demonstrates that Woodburn has adequately addressed housing needs at all income levels, and in fact provides more low-income housing opportunities than other Willamette Valley jurisdictions. Woodburn satisfied the coordination required in this work task by providing notice of the public hearings to surrounding jurisdictions and by meeting the density “guideline” for Woodburn (8 units per gross acre) found in the Marion County Growth Management Framework Plan.

Subtask 1.A.(5) – Consider Applicable Policies and Regulations

Analyze comprehensive plan policies/map and inventory related to buildable land supply, Goals 10 and 14.

Woodburn reviewed and revised its housing policies and regulations to ensure consistency with Goal 10 and applicable ORS 197 requirements. See UGB Justification Report.

Subtask 1.A.(6) – Does City have a 20-Year Supply of Land?

Compare supply and demand in light of policies.

Woodburn compared its land supply and needs in the UGB Justification Report, which the Council adopted to support its decision on the periodic review package. With adopted UGB amendments, Woodburn has the capacity to accommodate urban population, employment and livability needs through the year 2020.

Subtask 1.A.(7) – Consider Ability to Service

Incorporate findings from public facilities plan that will affect availability of residential development.

Woodburn adopted the Public Facilities Plan as an element of the amended Comprehensive Plan (2005). In addition to showing that public facilities can be efficiently provided to all areas within the existing UGB, Woodburn analyzed its ability to provide sanitary sewer, water, and storm drainage facilities to the eight UGB expansion study areas. The TSP considered alternative growth scenarios and determined that growth scenarios that did not include the “South Arterial” would have an adverse affect on transportation efficiency. The Council considered the facts from the Public Facilities Plan and TSP, as one among several factors to determine what lands should be designated for residential use and where to expand the UGB for residential use.

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Subtask 1.A.(8) - Consider Economic Policies

Coordinate proposed comprehensive plan map changes with findings and recommendations from commercial and industrial land study.

Woodburn evaluated its commercial and industrial land supply needs in its Economic Opportunities Analysis and Economic Development Strategy and in a 2003 memoranda prepared by ECONorthwest. Woodburn amended its comprehensive plan text, plan map, WDO regulations and zoning map to implement the findings and recommendations of its economic development study. See UGB Justification Report, Woodburn Comprehensive Plan (2005), WDO, and the Woodburn Comprehensive Plan and Official Zoning Maps.

Subtask 1.A.(9) – SMART Development

Adopt approved SMART development recommendation, research overlay district/infill strategies.

Woodburn incorporated SMART development policies into the periodic review comprehensive plan and WDO amendments to the extent applicable and feasible in Woodburn. The primary amendments include the creation of nodal overlays that increase densities and encourage mixed-use pedestrian oriented developments and provision of an option for narrower local street right of ways.

WORKTASK 1.B. PREPARE GROWTH MANAGEMENT ORDINANCE

This task requires Woodburn to prepare implementing land use ordinances based on the results of Tasks 1.A, 2 and 3.

Based on the results of tasks 1.a., 2 and 3, the Council amended the WDO to (1) add the new nodal neighborhood commercial (NNC) and Nodal Overlay District (NOD), Southwest Industrial Area (SWIR) districts, (2) add new minimum density standards, (3) reduce the lot width and depth standards in the RS zone, (4) reduce lot width and street frontage standards in the RIS zone, and (5) reduce the minimum lot are for duplexes in the RM zone.

WORKTASK 2. Commercial and Industrial Lands Inventory

This work task required the city to evaluate its commercial and industrial land needs, in conjunction with its evaluation of its residential land needs required in work task 1. It requires the City to then adopt a necessary land use plan and/or zoning map changes, growth management policies and/or standards based on those needs.

Subtask 2.(3) – Demographic, Economic, Transportation Trends

Document recent demographic, economic and transportation trends impacting commercial and industrial land use.

Woodburn documented recent demographic, economic and transportation trends affecting commercial and industrial land use in its Economic Opportunities Analysis and Economic Development Strategy. See UGB Justification Report.

Subtask 2.(4) – Land Demand

Analyze demand for industrial and commercial land.

Woodburn analyzed the demand for industrial and commercial land in the Economic Opportunities Analysis and Economic Development Strategy. See Goal 9 findings in this document and in the UGB Justification Report.

Subtask 2.(5) – Evaluate Industrial/Commercial Sites

Evaluate and map industrial and commercial sites to determine if they are development ready, have service available, or have development constraints.

Industrial and commercial sites were inventoried in the Buildable Lands Inventory (Technical Report 1). Woodburn analyzed the City's ability to serve industrial sites in the Public Facilities Plan, which the Council adopted as an element of the 2005 amended Comprehensive Plan.

Subtask 2.(6) – Review Economic Policies

Analyze adequacy of comprehensive plan policies related to Goal 9.

Woodburn analyzed the adequacy of the City's comprehensive plan policies related to Goal 9 and made appropriate amendments to the plan text. Woodburn also adopted the Economic Development Strategy (EDS), which provides detailed economic development policy direction.

Subtask 2.(7) – Evaluate Sufficiency of Land Supply

Compare supply and demand in light of policies.

Woodburn analyzed the supply of industrial land in the Buildable Lands Inventory and the demand in the City for industrial and commercial land in the Economic Opportunities Analysis and the UGB Justification Report. The City compared the supply of suitable industrial sites to future demand and amended the plan to expand the UGB and amended the plan map designations to ensure that there is a supply of land available to meet projected economic needs of targeted employers. To meet commercial land needs, Woodburn relied on (a) new nodal commercial designations, and (b) redevelopment and infill of existing commercial properties. See UGB Justification Report.

Subtask 2.(8) – Consider Ability to Service

Incorporate findings from the public facilities plan and natural resources study (wetlands, floodplain, sensitive aquifers, wellhead protection) that will affect serviceability of Goal 9 lands.

Woodburn incorporated findings from the Public Facilities Plan by adopting the Public Facilities Plan as an element of the Comprehensive Plan. Woodburn considered the relatively costs of providing services to alternative UGB expansion areas, as shown in appendices to the PFP. Woodburn also considered the “buildability” of land within the UGB and within alternative UGB expansion areas, as shown in the Buildable Lands Inventory and UGB Justification Report. Woodburn identified protected riparian corridors, wetlands, and the 100-year floodplain on the Comprehensive Plan Map and a Riparian Corridor and Wetlands Overlay District (RCWOD) on the zoning map.

Subtask 2.(9) – Consider Residential Lands

Coordinate proposed comprehensive plan map changes with the findings and recommendations from the residential land housing study to ensure efficiency (Goal 14, factor 4) and compatibility of land uses.

Woodburn considered its residential land needs for the planning period in Technical Report 2, Woodburn Residential Land Needs Analysis. The information from all studies, adopted either as an element of the Comprehensive Plan or a background document, was considered and included in amendments to the comprehensive plan text, plan map, WDO regulations and zoning map. See also Woodburn UGB Justification Report. Compatibility of land use was explicitly considered by the Council’s decision to concentrate the SWIR in Southwest Woodburn, and to concentrate new residential development in North and South Woodburn, as explained further in the UGB Justification Report.

WORK TASK 3.A. UPDATE PUBLIC FACILITIES PLAN

Work Task 3.A. required Woodburn to coordinate and update its Public Facilities Plan, and incorporate revised Comprehensive Plan policies consistent in serving growth management approaches developed in Task 1. The Council has adopted the PFP as a functional element of the Woodburn Comprehensive Plan.

Subtask 3.A(4) – Wastewater Plan

Woodburn adopted its Wastewater Treatment Plan, amended the wastewater elements of the Woodburn 2000 Comprehensive Plan, and modified the narrative abstracts, goals and policies relating to water and wastewater in August 1997. Copies of the wastewater treatment plan and comprehensive plan amendments were provided to DLCDC at that time. Projects from the Wastewater Treatment Plan necessary to serve land within the UGB are included or referenced in the PFP.

Subtask 3.A(5) – Water Plan

Complete water plan:

- a. *Sensitive aquifers inventory;*
- b. *Wellhead protection plan;*
 - 1. *Identify and describe the resource and conflicting use;*
 - 2. *Analyze data[a]*
 - 3. *Prepare technical paper;*
 - 4. *Evaluate impacts on buildable land inventory;*
- c. *Hazard substance cleanup site inventory; and*
- d. *Look at water rights.*

A city is required, at each periodic review, to inventory and protect significant groundwater resources. Significant groundwater resources are limited to 1) critical groundwater areas and groundwater limited areas designated by Oregon water resources commission (OWRC); and 2) wellhead protection areas if a city chooses to designate such areas. OAR 660-023-0140(2).

Oregon Department of Human Services and Department of Environmental Quality have developed a Source Water Protection Plan for the City. The plan inventories potential sources of contamination, establishes best management practices for industries within the influence zone of the City's wells, allows the City to develop ordinances to provide protection of the aquifer and maps the flow patterns of the aquifers. The Troutdale aquifer, from which the City's wells obtain the City's drinking water supply is not a critical or restrictively classified groundwater area. The City does not plan at this time to request certification of the delineations in the Source Water Protection Plan for Statewide Planning Goal 5 purposes.

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Woodburn looked at its water rights in the Water Master Plan and found that Woodburn has sufficient water rights to meet projected water demands through the year 2020.

Subtask 3.A.(6) – Stormwater Plan

Complete storm water plan.

Woodburn has had a storm drainage master plan prepared. The substance of that plan is included in the Public Facilities Plan, which the Council adopted as an element of the amended 2005 Comprehensive Plan.

Subtask 3.A.(7) – Public Facilities Plan

Incorporate findings into a public facilities plan.

The Woodburn Council adopted a Public Facilities Plan as an element of the amended 2005 Comprehensive Plan

WORK TASK 3.B. REVISE TRANSPORTATION SYSTEM PLAN (TSP)

Amend the TSP based on the applicable land use and public facilities planning results and recommendations from Tasks 1, 2 and 3.a

Woodburn has revised the TSP and the Council adopted the Woodburn Transportation System Plan (2005) as an element of the Woodburn Comprehensive Plan (2005). Projects from the TSP also are included in the PFP.

Subtask 3.B.(2). – Update TSP

Update transportation plan/refinement study. Refinement study will be supported by buildable lands inventory, needs analysis and populations forecast. Update TAZ and amend the TSP to provide for OAR 660-12-060 land use and transportation coordination.

Woodburn revised its Transportation System Plan, which the Council adopted as an element of the Woodburn Comprehensive Plan (2005).

WORK TASK 4. WETLANDS, INVENTORY AND NATURAL RESOURCES STUDY

An inventory of wetlands, riparian corridors and wildlife habitat will be prepared, along with supporting maps, policies and land use ordinances.

Subtask 4.(2) – Review new Goal 5 requirements (OAR 660-23)

Woodburn has reviewed the current Goal 5 requirements and opted to follow the “safe harbor” provisions for riparian corridors and wetlands, including wildlife habitat within these protected areas, the only Goal 5 resources in the City's UGB. Woodburn's protection is implemented by the Riparian Corridor and Wetland Overlay District (RCWOD).

Subtask 4.(3) – Conduct inventory and assess quality according to work program approved by DSL.

Woodburn has completed a Local Wetlands Inventory (LWI), identified locally significant wetlands (LSW) and obtained DSL approval of its wetlands inventory. See City of Woodburn Local Wetlands Inventory and Riparian Assessment. Winterbrook inventoried these resources in the eight UGB study areas, as documented in Technical Report 3, Potential UGB Expansion Area Analysis, Natural Resources Inventory. Woodburn amended the WDO to comply with the safe harbor provisions for wetlands and riparian corridors through the Riparian Corridor and Wetlands Overlay District (RCWOD).

Subtask 4.(4) Propose amendments to the comprehensive plan text and to the city's implementing ordinance consistent with the findings of other periodic review planning studies: (pedestrian/bike plan; public facilities plans; land use inventory and needs analysis; and parks plan)

The Council substantially amended the Comprehensive Plan, including plan text, and zoning ordinance (WDO) amendments that Council determined were required or desirable based on the periodic review planning studies.

WORK TASK 7. CHANGES IN GOAL/OBJECTIVE, UNANTICIPATED EVENTS

The primary changes in Woodburn's goals and objectives resulted from the 2001 Economic Opportunities Analysis and Economic Development Strategy, the 2003 Marion County Growth Management Framework Plan, and the 2003 Housing Needs Analysis. These policy changes served as the basis for substantial amendments to the Woodburn Comprehensive Plan, subordinate functional plans, and implementing land use regulations.

WORK TASK 8. UPDATE PLAN AND ZONING ORDINANCE, OTHER RELATED ORDINANCES.

Woodburn has adopted major revisions to its comprehensive plan and land use regulations to address issues identified during the Periodic Review process. In addition, this work task identified several "housekeeping items" that the City should address. Some plan policies needed to be updated that address Goals 5, 6, 8, 9, 10, 11, 12, and 14. Others needed revision based on legislative changes since the last periodic review. Changes to the zoning ordinance (chapters 1-40), sign, tree, subdivision, landscape standards, and flood plain ordinances were also identified as needed. The amendments specified in this paragraph are addressed below.

Plan Policies Updates

Sign Ordinance

The Council adopted a new sign ordinance that is incorporated as chapter 3.110 of the WDO. The ordinance was adopted on March 22, 2004 (Ordinance No. 2359), provided to DLCD as a post-acknowledgment decision and is acknowledged.

Tree provisions

After first considering and then not adopting a tree ordinance in 2003, the Council determined instead to include tree protection provisions in the WDO that apply only to lots subject to development application approvals. No change has been made in this periodic review decision package.

Subdivision Provisions

In 1999, when the periodic review work program was approved, Woodburn's subdivision ordinance was a separate ordinance from the zoning ordinance. The provisions in the former subdivision ordinance were incorporated in the WDO when it was adopted in 2002. No amendments implicated the statewide goals. Woodburn submitted the WDO to DLCD as a post acknowledgement decision. The revisions are now acknowledged. No changes to the subdivision provisions are included in the periodic review WDO amendments.

Floodplain Ordinance

The only identified natural hazard in Woodburn is the 100-year flood area. Because this area contains the most unstable soils for development and development in the flood area is subject to flooding hazard, the City flood hazard area regulations require a permit to build within the flood hazard area (Flood Plain Ordinance No. 2018). The Ordinance meets the requirements of the Federal Flood Insurance (FEMA) program. Under the Woodburn Floodplain Ordinance

structures may be built in the flood hazard area but must be anchored, have their floor level above the flood level, and designed so that foundations do not impede flow. Similarly, no fill is permitted that would result in any increase in flood levels.

The periodic review amendments include a substantially revised Riparian Corridor and Wetlands Overlay District (RCWOD) that also protects lands within the 100-year floodplain. The RCWOD restricts removal of vegetation, with certain exceptions prohibits building, paving, grading and fill, and provides a variance process if the restrictions create a hardship. New construction (other than streets and utilities) is prohibited within undeveloped floodplain areas, as mapped on the Buildable Lands Inventory.

Landscaping Standards

In 1999, when the periodic review work program was approved, Woodburn's landscape ordinance was a separate ordinance from the zoning ordinance. The provisions in the former landscape ordinance were incorporated into the WDO when it was adopted in 2002. Woodburn submitted the WDO to DLCDC as a post acknowledgment decision. The revisions are now acknowledged. No changes to the landscape provisions are included in the periodic review WDO amendments.

Subtask 8(2). – Ensure Plan Is Consistent With Goals

Review all current comprehensive plan policies and implementing ordinances for consistency with statewide planning goals.

A primary purpose of these findings is to demonstrate that all 2005 amended comprehensive plan policies and implementing ordinance are consistent with statewide planning goals.

Subtask 8.(3). – Ensure Plan and Regulations Consistent With Statutes

Review all current comprehensive plan policies and implement[ing] ordinances for consistency with legislation.

A primary purpose of these findings is to demonstrate that all comprehensive plan policies and implementing ordinances are consistent with applicable statutes. Generally, applicable statutes relate to a statewide goal. The applicable statues are addressed under the associated goal.

Subtask 8.(4) – Ensure Regulations Consistent With Plan

Review zoning ordinance and other implementing ordinance[s] for consistency with comprehensive plan.

Woodburn did a comprehensive review and amendment of its comprehensive plan and implementing regulations in this periodic review. The Comprehensive Plan is the general

document containing policies. The Council adopted the amended Woodburn Transportation System Plan (2005) as a functional element of the amended Comprehensive Plan (2005). Woodburn reviewed and amended the implementing regulations, contained in the WDO, to ensure that they are consistent with the Comprehensive Plan.

WORK TASK 9. PLANNING COORDINATION

Subtask 9.(2). – Marion County IGA

Review Urban Growth Boundary Agreement.

Woodburn reviewed and amended its Urban Growth Boundary Coordination Agreement (UGBCA) with Marion County, considering current conditions and the County's Growth Management Framework Plan.

Subtask 9.(3) – Special Districts and State Agencies

Review or establish agreements with fire district, school district, Marion County, ODOT, and other agencies found to be necessary (ORS 195.065).

ORS 190.065 requires a city to enter into an "urban service agreement" with a special district that provides an urban service within the city's UGB if the County has identified that they are appropriate parties to such an agreement. Marion County has not identified that the City needs an urban service agreement with any district. The City of Woodburn is a full service city, except that the Woodburn Fire District provides fire services within the City, within the City's UGB and beyond.

Subtask 9.(4) – Amend Plan and Regulations

Recommend amendments to the comprehensive plan text and to the city's implementing ordinances, consistent with the findings of the study

Woodburn has incorporated into its comprehensive plan and the Woodburn Development Ordinance (WDO) those provisions that it determined from the periodic review studies to be necessary or desirable. These amendments are substantial and are further described in the introduction to this document and in the UGB Justification Report.

WORKTASK 10. CITIZEN INVOLVEMENT

Citizen involvement throughout the periodic review process will comply with the provision within the comprehensive plan. The planning commission will serve as the citizen advisory involvement committee. The city will maintain an interested parties

mailing list and provide written notification. This task will be completed by submittal of a citizen involvement report.

Woodburn has satisfied this work task by following its citizen involvement program in making the decisions involved in the 2004 period review decisions. The Woodburn Citizen Involvement Report provides detailed information on the series of open houses, public hearings, and work sessions held by staff, the Planning Commission and City Council that led to the ultimate adopted of the Periodic Review Amendment Package.

Compliance with State Requirements

Thirteen of Oregon's 19 Statewide Planning Goals apply to amendments of Woodburn's Comprehensive Plan or implementing regulations:

- Goal 1: Citizen Involvement
- Goal 2: Land Use Planning (OAR Chapter 660, Division 4)
- Goal 3: Agricultural Land (ORS 215.243; OAR Chapter 660, Division 33)
- Goal 5: Natural Resources, Scenic and Historic Areas, and Open Spaces (OAR Chapter 660, Division 23)
- Goal 6: Air, Land and Water Resources Quality
- Goal 7: Areas Subject to Natural Disasters and Hazards
- Goal 8: Recreational Needs
- Goal 9: Economy of the State (ORS 197.712; OAR Chapter 660, Division 9)
- Goal 10: Housing (ORS 197.296-314; OAR Chapter 660, Division 8)
- Goal 11: Public Facilities and Services (OAR Chapter 660, Division 11)
- Goal 12: Transportation (OAR Chapter 660, Division 12)
- Goal 13: Energy Conservation
- Goal 14: Urbanization (ORS 197.296-298; OAR Chapter 660, Division 4)

The following sections set out the requirements that apply to demonstrating that Woodburn's periodic review decision comply with applicable statewide goals, statutory and administrative rules related to Goals 1 through 7, 11, 12 and 13. The UGB Justification Report demonstrates that this decision complies with statutes, goals and rules related to Goals 2, 5 and 7 through 14. Where a requirement applies it is set out in bold face and italics, followed by the City Council's findings on that requirement. Generally, these findings direct a reader to a document that contains the elemental facts. The heading of each section identifies the goal and the associated applicable statute[s] and/or administrative rule[s].

Goal 1: Citizen Involvement - ORS 197.160

Woodburn is required by ORS 197.160 and Goal 1 to establish a program for citizen involvement “in preparing, adopting and amending comprehensive plans and land use regulations.” ORS 197.160 establishes standards that apply when a City adopts or amends a citizen involvement program. It does not establish requirements for reviewing other types of plan amendments that apply the citizen involvement program. In other words, unless a City is amending its citizen involvement program, Goal 1 is satisfied as long as the City follows its unamended citizen involvement program.

The Woodburn periodic review package includes an amendment to comprehensive plan provisions that concern its citizen involvement policies.. The amended citizen involvement policies would apply to future land use decisions.

Existing Woodburn Comprehensive Plan Provision

The Woodburn Comprehensive Plan (2005) contains one policy related to citizen involvement; Policy E-1 provides as follows:

“It is the policy of the City of Woodburn to solicit and encourage citizen input at all phases of the land use planning process. Since the City is essentially trying to plan the community in accordance with the community’s desires, it is essential that the community be consulted at all stages of the planning program to insure decisions are in accordance with the community’s benefit.”

The “Land Use “ section of the comprehensive plan contains the following statement under the heading “I. Citizen Involvement”

“The success of the Woodburn Plan is directly related to establishing a method of receiving citizen input. While complex organizations, such as are required in larger cities, are not necessary in a city the size of Woodburn, clear lines of communication should be maintained by the Boards, Commissions, Council and staff of the City to the general public.

It is essential that a two way flow of communication be maintained for proper city government to occur, especially in land use matters.”

Amended Comprehensive Plan Provisions

The existing comprehensive plan provisions remain in the 2005 amendments. Policy E-1 is renumbered to B-1. A second Comprehensive Plan policy, B-2 was added that addresses how the city will notify state agencies. Those policies do not relate to the city’s citizen involvement requirement, but instead to its requirement to coordinate with special districts and state agencies.

Conclusion

Woodburn complied with its existing citizen involvement program. Notice was mailed to all property owners within the City, the unincorporated area within the 2002 UGB, and the UGB study areas. Workshops were held within the community to present the proposed decisions, answer questions and receive comments. In addition to open houses hosted by staff, public hearings were held before the Planning Commission and the City Council. All documents relied upon and the proposed amendments were available on the City's website, City hall, and the City library. Comments received in the public hearing processes have been retained. These findings respond to issues that were raised with sufficient specificity to allow the Council to respond to them.

Goal 2: Land Use Planning

Goal 2 Part I

Goal 2 contains several different requirements for comprehensive plans and regulations to carry them out. In summary, these are as follows:

1. Regulations must have a **basis in the comprehensive plan**
2. Regulations must be **consistent** with the plan
3. Regulations must be **adequate to carry out** the plan
4. Decisions must be **based on adequate facts**
5. Plans must **evaluate alternative courses of action** and contain ultimate policy choices.
6. **Plans must be consistent** with other plans
7. Plans must be **coordinated**

Regulations Based On, Consistent with, and Adequate to Carry Out Comprehensive Plan

All of Woodburn's land use regulations are contained in the acknowledged WDO. The WDO amendments fall within several subject areas: riparian corridors and wetlands protection (Goals 5 and 7) residential development (Goal 10), economic development (Goal 9), Transportation (Goal 12), and growth management and annexation (Goal 14). A review of those comprehensive plan and WDO amendments shows that comprehensive plan amendments were made after the Council considered alternatives, are consistent with the Marion County plan, and coordinated; and that every WDO amendment has a basis in the Comprehensive Plan, is consistent with, and adequate to carry out the Comprehensive Plan.

Adequate Factual Basis for Decisions

Goal 2 provides, in part, that:

“[a]ll land use plans shall include identification of issues, and problems, inventories, and other factual information for each applicable statewide planning goal, . . . evaluation of alternative courses of action and ultimate policy choices. . . The required information shall be contained in the plan document or in supporting documents.”

All comprehensive plans must:

- a. Identify issues and problems,
- b. Include inventories and other factual information,
- c. Evaluate alternative course of action, and
- d. Include ultimate policy choices.

The studies the City has undertaken and information received through the public hearing process has provided the Council with adequate facts upon which it based the decisions made. The assumptions for the various studies are contained within the studies. The facts that the Council relied on are set out in the findings of fact in this document, the UGB Justification Report, explanation from plan map and zoning map amendments titled Woodburn 2005 Comprehensive Plan Update, Explanation of Proposed Plan and Zoning Map Changes.

Consistent Plans

City and County comprehensive plans are consistent if they contain no actual conflicts. An unlawful inconsistency can occur only when two (or more) comprehensive plans have jurisdiction over the same property. The only other comprehensive plan that addresses the same territory as covered by the Woodburn Comprehensive Plan (2005) is the Marion County Comprehensive Plan.

Based on provisions in the City/County urban growth management area agreement (UGMA), Woodburn has been the "lead" planning agency. Marion County has adopted the urban growth boundary separating urban from rural land, and the Woodburn Comprehensive Plan as it applies to land within the UGB. Marion County administers holding zones within the unincorporated urban area. LCDC has acknowledged the Woodburn Comprehensive Plan text and plan map in its entirety for lands both within and without the City. The 2005 periodic review amendments make no change in those relationships.

Coordination Requirement

Goal 2 requires the City to provide an opportunity for affected cities, counties, special districts, and state and federal agencies to comment. It also requires the City to accommodate the needs of those entities "as much as possible."

A Notice of Public Hearing announcing the February 3, 2005, Planning Commission and March 28, 2005, Council public hearings, explaining the nature of the proposed amendments and soliciting comments, was mailed to the following potentially affected units of government and agencies on January 14, 2005:

Oregon Department of Transportation
Department of Land Conservation and Development
Department of Environmental Quality
Oregon Department of Fish and Wildlife
Water Resources Department
Division of State Lands
Oregon State Health Division
Woodburn School District
Woodburn Fire District
Marion County Planning Department

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Coordination with Marion County

Marion County will adopt the Woodburn Comprehensive Plan and Map for unincorporated land within the Woodburn UGB when it adopts the City of Woodburn's comprehensive plan text and map amendments, including functional plan elements.

Woodburn's UGBCA with Marion County provides guidance regarding the plan amendment and notification process. Woodburn followed the procedural requirements outlined in the UGMA.

Coordination with Affected Cities

Woodburn provided notice and an opportunity to comment to the cities of Hubbard and Gervais.

Coordination with Special Districts

Woodburn provided notice and an opportunity to comment to the Woodburn Fire District and the Woodburn School District.

ORS 195.110 requires a city to coordinate with "high growth" school districts and plan for new school facilities. The current student population of the Woodburn School District is 4,710 (2003-2004). The district had an average enrollment growth rate of 5% from 2001-2004. The district does not meet the threshold of a high growth district (5,000 students and a 6 percent growth rate for the last three school years).

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Coordination with Affected State and Federal Agencies

Woodburn provided notice and an opportunity to comment to affected state agencies. Woodburn has amended the Comprehensive Plan (Policy B-2) to include a new policy on coordinating with state agencies.

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Goal 3 – Agriculture

Woodburn is surrounded by lands designated for agricultural use. Woodburn has complied with Goal 14 and ORS 197.298 in expanding its urban growth boundary to include agricultural land. That is explained in the UGB Justification Report.

Goal 4 - Forest Lands

Goal 4 does not apply to the City of Woodburn's comprehensive plan amendment decision because no land surrounding the City is designated for forestry use.

Goal 5: Natural Resources, Scenic and Historic Areas, and Open Spaces (OAR 660-023)

The purpose of Goal 5 is:

To protect natural resources and conserve scenic and historic areas and open spaces.

The Goal requires cities to inventory specified resources and to adopt programs to “protect natural resources” and “conserve scenic, historic and open space resources.” Some of the resources that the goal requires to be inventoried do not exist in Woodburn (specifically: federal wild and scenic rivers; state scenic waterways; approved Oregon recreation trails; natural areas listed on the register of natural resources; and federally designated wildlife areas). The Goal 5 resources that *may* apply to Woodburn are limited to the following:

- a. Riparian corridors, including water and riparian areas and fish habitat;
- b. Wetlands;
- c. Wildlife Habitat;
- d. Groundwater Resources;
- e. Mineral and Aggregate Resources;
- f. Energy sources;
- g. Cultural areas.

LCDC has elaborated on Goal 5’s requirements in OAR Division 23. OAR 660-023-0030 through 660-023-0050 contain the requirements for all resources. For each resource category, the rule contains standard requirements and, in some instances, an alternative “safe harbor” standard for satisfying the goal. There are safe harbor alternatives for riparian corridors and wetlands. OAR 660-23-090 and 660-023-100. Woodburn followed the safe harbor provisions and included the safe harbor requirements in the new Riparian Corridor and Wetlands Overlay District (RCWOD) amended zoning district.

Riparian Corridors and Wetland (OAR 660-023-0090 and -0100)

The safe harbor provisions for riparian corridors allow the City to determine significant riparian corridors by using a standard setback distance from all fish-bearing streams, based on ODFW maps indicating fish habitat. ODFW has designated Mill Creek and Senecal Creek as fish bearing streams. For streams with an average annual stream flow less than 1,000 cubic feet, the riparian corridor standard setback a distance of 50 feet upland from the top of each bank, defined as the 2-year flood elevation. Where a riparian corridor includes all or part of a significant wetland, the riparian corridor extends upland 50-feet from the upland edge of the wetland.

Woodburn has adopted plan policies and implementing regulations that satisfy the riparian corridor safe harbor provisions.

Under the safe harbor approach for wetlands, the City is required to identify locally significant wetlands. In 2000, Woodburn completed a Wetlands Inventory and Riparian Assessment for land within the UGB. By a letter dated December 22, 1999, DSL approved the wetlands inventory. Ten individual wetland sites or wetland complexes were determined to be locally significant, nine along the main stem of Mill, Senecal, East Senecal or Goose Creeks. The tenth is a short length of a minor drainage that flows directly into Mill Creek. The Council adopted the wetlands inventory and riparian assessment, as a background document, in the periodic review amendment ordinance.

Winterbrook inventoried the wetlands, stream corridors, floodplains and wildlife habitat for special status species within the UGB study area, Technical Report 3, Potential UGB Expansion Area Analysis, Natural Resources Inventory. The Council reviewed the study and concluded the information was adequate. The Council adopted Technical Report 3, as a background document, in the periodic reviews amendment ordinance.

The safe harbor provisions applicable to wetlands, riparian corridors, and associated fish and wildlife habitat contain some common requirements. The development regulations must contain a variance procedure to be used when the regulations create a "hardship" on an applicant, a procedure to address map error claims, and a procedure to reduce or remove restrictions if the restrictions cause the land to be unbuildable. Both also require restrictions (prohibition) on grading.

Within the riparian corridor setback, the safe harbor standards require the City to limit conflicting uses by adopting an ordinance that prevents permanent alteration of the riparian area by grading or placement of structures or impervious surfaces. Exceptions may be granted for streets, roads, paths, drainage facilities, utilities, irrigation pumps, water-related or water-dependent uses, and replacement of existing structures, provided intrusion into the riparian area is minimized.

Woodburn has addressed both wetlands and riparian corridor requirements by amending the Significant Wetlands Overlay District with a Riparian Corridor Wetlands Overlay District (RCWOD).

Groundwater Resources (OAR 660-023-0140)

A city is required, at each periodic review, to inventory and protect significant groundwater resources. Significant groundwater resources are limited to 1) critical groundwater areas and groundwater limited areas designated by Oregon Water Resources Commission (OWRC); and 2) wellhead protection areas if a city chooses to designate such areas. OAR 660-023-0140(2).

The Oregon Department of Human Services and Department of Environmental Quality have developed a Source Water Protection Plan for the City. The plan inventories potential sources of contamination, establishes best management practices for industries within the influence zone of the City's wells, allows the City to develop ordinances to provide protection of the aquifer, and maps the flow patterns of the aquifers. The Troutdale aquifer, from which the City's wells obtain

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the City's drinking water supply, is not a critical or restrictively classified groundwater area. The City does not plan at this time to request certification of the delineations in the Source Water Protection Plan for Statewide Planning Goal 5 purposes.

Mineral and Aggregate Resources (OAR 660-023-0180)

The Council reviewed the Marion County Comprehensive Plan with regard to mineral and aggregate resources in the UGB amendment study area. The plan does not contain any such site on its inventory. Marion County's plan has been acknowledged as complying with Goal 5. Woodburn is not including any mineral or aggregate resources. Woodburn has not received any new information concerning mineral or aggregate resource sites. Consequently, OAR 660-023-0180 does not apply to these periodic review decisions pursuant to OAR 660-0023-0250 (5).

Energy Sources (OAR 660-023-0190)

- (1) *For purposes of this rule,*
 - (a) *"Energy source" includes naturally occurring locations, accumulations, or deposits of one or more of the following resources used for the generation of energy: natural gas, surface water (i.e., dam sites), geothermal, solar, and wind areas. * * **
- (2) *In accordance with OAR 660-023-0250(5), local governments shall amend their acknowledged comprehensive plans to address energy sources * * * **

No natural gas, surface water, geothermal, solar, or wind area resource sites have been identified in the Woodburn area. Nor are there any energy resource sites that have be applied for or approved by EFSC or FERC. This rule does not apply to Woodburn.

Comprehensive Plan Amendments

The 2003 amendments to the Comprehensive Plan inserted a new (previously there was none) narrative statement concerning natural and cultural resources. It addresses wetlands and riparian areas. The 2005 amendments to the natural and cultural resources element included some revisions to policies and two new policies. The natural and cultural resources were renumbered from "N," to "J."

Development Ordinance Amendments

Under the safe harbor provisions for riparian corridors the City is required to adopt regulations that prevent the permanent alteration of the riparian area and that restrict the following activities in a wetland: grading, excavation (i.e., removal), placement of fill, removal of vegetation, other than perimeter mowing and other cutting necessary for hazard prevention.

The Division of State Lands regulates the removal of materials from and fill materials in wetlands. A DSL permit is required to remove or fill 50 cubic yards or more of materials from or into a wetland. Woodburn relies on the DSL permit process to satisfy the requirement to restrict removal and fill in wetlands.

The requirement that a city prohibit permanent alteration of riparian corridors is subject to exceptions for the following activities and uses: streets, road and paths; drainage facilities, utilities; water related and water dependent uses; replacement of existing structures. Both safe harbor provisions require regulations to prevent removal of vegetation. However, the two areas have different provisions. For wetlands the requirement to prevent vegetation removal does not apply to "perimeter mowing" or "cutting necessary to prevent hazard." For riparian corridors it does not apply to: "non-native vegetation and replacement with native plant species" or removal "necessary for the development of water-related or water-dependent uses."

Woodburn amended the WDO to include safe harbor regulations to satisfy the above requirements. The amendments expanded the Significant Wetlands Overlay District into a Riparian Corridor and Wetlands Overlay District (RCWOD), Section 2.113 of the WDO. The general location of the riparian corridor, wetlands and floodplains are shown on the 2005 Comprehensive Plan Map. The location of the RCWOD is shown on the Official Woodburn Zoning Map. The RCWOD includes locally significant wetlands, the 50-foot riparian corridor areas on each side of the fish bearing stream, and the 100-year floodplain in buildable areas shown on the Woodburn Buildable Lands Inventory.

Applicants for land divisions and new commercial, industrial, or multi-family development may use the Planned Development process and transfer density from unbuildable riparian corridors to buildable land.

Anyone proposing conflicting uses or activities within the mapped RCWOD is required to obtain a RCWOD permit, pursuant to Section 5.101.11 of the WDO.

Buildable Lands Affected by Protecting Resources (OAR 660-023-0070)

Protecting riparian corridors and wetlands as required by the Goal 5 safe harbor provisions reduces the total land available for development. Most future residential land needs will be satisfied within the 2002 UGB because Woodburn has increase residential density within the 2002 UGB. To satisfy unmet residential and public land needs for industrial development, Woodburn has amended the urban growth boundary to provide additional lands available to meet projected needs.

Goal 6: Air, Land and Water Resources Quality

Goal 6 requires that “air, land, and water resource quality” not be “degraded” because of planned urban development. DEQ is responsible for administration of the Clear Air Act and the Clean Water Act at the state level. Cities meet Goal 6 through demonstration of compliance with Environmental Quality Commission (EQC) air, land and water quality administrative rules. Water quality standards typically are met through EQC approval of plans for sanitary sewer systems. DEQ also regulates point and non-point source emissions related to water and air quality.

Along with other affected state agencies, DEQ was notified of the proposed plan amendment package. Woodburn complies with all applicable EQC requirements.

Goal 7: Areas Subject to Natural Disasters and Hazards

The provisions of Goal 7 are as follows:

To protect life and property from natural disasters and hazards.

Developments subject to damage or that could result in loss of life shall not be planned nor located in known areas of natural disasters and hazards without appropriate safeguards. Plans shall be based on an inventory of known areas of natural disaster and hazards.

Areas of Natural Disasters and Hazards – are areas that are subject to natural events that are known to result in death or endanger the works of man, such as stream flooding, ocean flooding, ground water, erosion and deposition, landslides, earthquakes, weak foundation soils and other hazards unique to local or regional areas.

Goal 7 requires cities to adopt measures to protect life and property from natural hazards and disasters, such as floods, erosion, landslides, earthquakes, and weak foundation soils. Because Woodburn is relatively flat, it does not have significant land slide hazards or erosion and deposition hazards. Woodburn has considerable land within the 100-year floodplains of Mill Creek, Senecal Creek and their tributaries.

Woodburn has protected the lands inside the 2002 (pre-amendment) UGB from flooding by adopting the Woodburn Floodplain regulations (Ordinance No. 2018). Winterbrook inventoried the floodplains in the eight UGB study areas, Technical Report 3 Potential UGB Expansion Area Analysis, Natural Resources Inventory.

The flood insurance maps prepared by the Federal Emergency Management Agency (FEMA) are used to identify the area affected by a 100-year flood. Using this data, the ordinance defines the maximum floodway width of Mill Creek as 150 feet wide and of Senecal Creek as 145 feet wide. Most tributaries are identified as having a maximum floodway width of 80 feet, one tributary to Mill Creek (basin no. 3) has a narrower maximum floodway width of 60 feet and one (basin no. 6) has a wider floodway width of 100 feet.

A floodplain development permit is required for any construction in these defined floodways. The floodplain permits are reviewed and issued by the City Engineer. The ordinance requires that the city maintain a 40-foot wide floodway on all existing open channels. If proposed construction will alter a watercourse, the ordinance requires the City Engineer to do the following:

- (1) Notify adjacent communities and the state agency responsible prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.

- (2) Require that maintenance is provided within the altered and relocated portion of the watercourse so that the flood carrying capacity is not diminished.

Any new construction within the 100-year floodplain is required to be anchored. Manufactured homes in the 100-year flood plain are required to be placed on fill and elevated above the level of a 100-year flood. There are restrictions on the storage of certain materials in the 100-year floodplain.

The living area of residential uses is required to be at least 1.5 feet above the level of a 100-year flood. Enclosed areas below the living area must be designed to equalize flood forces. For nonresidential uses, the lowest floor must be 1.5 feet above the level of a 100-year flood, or be flood proof, resist flood pressure and buoyancy.

Within the defined floodway (60 to 80 foot width) fill is required to be engineered. Fills within the 100-year floodplain may not have slopes greater than 33 percent. Fills are required to be outside the 40-foot floodway and must be minimized.

To comply with Goal 7 the Council has protected floodplains within buildable areas by the Riparian Corridor Wetlands Overlay District (RCWOD).

Goal 8: Recreational Needs

Goal 8 has no implementing administrative rule.

Woodburn adopted an update to its Parks and Recreation Plan in 1999. That plan was acknowledged to comply with Goal 8 and it satisfied completion of Work Task No. 5 of the City's periodic review order. The plan was designed to serve the City's needs through the year 2020, which when the plan was prepared was projected to be 26,290 persons.

The current projected population for Woodburn for the year 2020 is 34,919, 8,629 more people than the adopted Parks and Recreation Plan provides for. Because Woodburn's population is expected to grow, new park land will be needed to serve the new growth.

Woodburn has designated 16.33 acres of city-owned area at the upper end of Mill Creek within the City as greenway and open space (Hermanson I, II, III, and Wyffle parks). The City is committed to preserving creek corridors as greenways left in a natural state. There are four public elementary schools, two middle schools and one high school within Woodburn. Often active recreation activities are provided on school district ball fields and recreation areas. The parks plan identifies several types of park and recreation facilities:

- Mini-park
- Neighborhood / School park
- Community park (Legion and Settlemier parks - no new parks recommended)
- Municipal park Centennial Park - No new parks recommended)
- Special use / cultural resource facility
- Greenways, open space, trails and pathways - Mill Creek and Goose Creek are recommended as a system of public greenways and pathways. Their recreational functions recommended to be limited to open space and habitat preservation, flood control, cycling and walking, nature recreation and limited playground activities.

Mini-parks and neighborhood park/school parks are the types of facilities likely to be needed for future growth. Mini-parks are small parks within 1.4 mile radius. No standard level of service per 1,000 people is identified in the Parks plan for mini-parks. They are included in the standard for neighborhood/school parks. Neighborhood/School parks are facilities that serve the active and passive recreation needs of a neighborhood, generally should include playground equipment, a hard surface sports court and a playfield, and may also include picnic areas, vegetation, and other amenities. The standard included in the park plan for these facilities is 7.69 acres (this standard includes mini-parks.)

The UGB Justification Report explains how Winterbrook used the 1999 Park and Recreation Plan to project year 2020 park land needs. In projecting the amount of park needs through 2020, Winterbrook applied a ratio of 7 acres per 1000 population to project need for neighborhood

parcs and assumed that 50 percent of the park needs would be satisfied on school lands. As explained in the UGB Justification Report, Winterbrook applied the ratio to the projected population of 34,919 and subtracted existing park lands (including 50 percent of school sites) to determine needed park acreage. The 2005 UGB includes sufficient land to meet identified park needs through the year 2020.

In Woodburn's case, improving the city's park and recreation system probably will make the city more attractive to firms that may choose to locate in the area. Generally, publicly owned land that is reserved for parks is not considered available for private economic development. This assumption is reflected in the 2005 Buildable Lands Inventory.

Comprehensive Plan Amendments

The Parks and Recreation provisions of the Comprehensive Plan, which were in section "L", were moved to section R.

Goal 11: Public Facilities and Services

Goal 11 requires Woodburn to demonstrate that it can provide adequate public facilities and services to serve buildable land within the UGB. Woodburn and Marion County have agreed in their UGBMA that Woodburn shall be responsible for public facilities planning within the Woodburn UGB. The Goal 11 rule (OAR Chapter 660, Division 11) requires Woodburn to adopt "public facilities plans" that addresses sanitary sewer, storm drainage, water and transportation facilities necessary to support planned housing and employment growth. The PFP must inventory and assess existing facilities, and identify needed public facilities projects, their approximate timing and estimated costs.

Water, Storm Water, Sanitary Sewer, and Transportation Services

Woodburn is the only provider of water, sanitary sewer and storm sewer services in the Woodburn UGB and is the provider of local transportation services and facilities. Woodburn adopted the Public Facilities Plan (PFP) in its periodic review amendment package as a functional element of the Woodburn Comprehensive Plan. The PFP contains an inventory and general assessment of the condition of the significant public facility systems of the City's water, sanitary and storm sewer systems. The PFP contains lists of needed projects for the water, sanitary, transportation and storm sewer systems that are needed to support the land use designated in the amended comprehensive plan. Appendix A of the plan contains the list of projects and maps from the 2005-2006 capital improvement program for the next six years.

Woodburn prepared an analysis of public services and facilities needed to service the alternative urban growth boundary expansion areas. Woodburn used this information in selecting the lands it added to the UGB. Exhibit C to the PFP contains the City's analysis of costs to serve each of the UGB study areas. Exhibit B to the PFP contains maps illustrating how Woodburn could provide water, storm water and sanitary sewer facilities to the three UGB expansion areas. The TSP shows maps needed arterial, collector and service collector streets within the expand 2005 UGB.

For transportation services, the public facilities planning rule requirements are satisfied in the Woodburn Transportation System Plan (2005). Woodburn updated its Transportation System Plan (TSP) in coordination with Marion County, the Department of Land Conservation and Development (DLCD) and the Oregon Department of Transportation (ODOT). Short and long-term projects from the TSP are included within the PFP. The Woodburn Comprehensive Plan (2005) transportation goals and policies were amended to be consistent with the amended 2005 TSP.

Fire Service

The City of Woodburn is located within the boundary of the Woodburn Fire District that comprises an area that extends several miles outside of the Woodburn UGB. The Woodburn Fire

District provides fire protection services for the city and is governed by an elected board unaffiliated with the city. The city has coordinated this comprehensive plan update with the Fire District.

Public Schools

The City of Woodburn is located within the boundary of the Woodburn School District that comprises an area that extends several miles outside of the Woodburn UGB. The Woodburn School District is governed by an elected board unaffiliated with the city. The city has coordinated this comprehensive plan update with the School District.

Police Protection

The City of Woodburn Police Department provides police services to the city. This comprehensive plan update has been coordinated with the Police Department to enable them to plan for future police service needs.

Recreation Facilities and Services

The City of Woodburn Parks and Recreation Department provides recreation facilities and services in the city. This comprehensive plan update has been coordinated with the Parks and Recreation Department to enable them to plan for future parks and recreation needs. The city adopted an updated Parks and Recreation Master Plan in 1999 to address parks and recreation facility needs for the 20-year planning period.

Storm Water Service

See Public Facilities Plan.

Transportation Services

See Goal 12 findings and Public Facilities Plan

Goal 12: Transportation

Goal 12 provides as follows:

"To provide and encourage a safe, convenient and economic transportation system."

The Transportation Planning Rule (TPR) and the Oregon Highway Plan (OHP) implement Goal 12. The TPR requires local governments to prepare a "transportation systems plan" (TSP) that meets the requirements of OAR 660-012-020 through 055. The OHP is a component of Oregon's Statewide Transportation Plan, and includes policies and investment strategies for the state highway system over the next 20 years. The Council approved an update to the Woodburn Transportation System Plan (2005) (hereafter the 2005 TSP). Purposes of the update were to satisfy requirements of the Goal 12 administrative rule and the OHP, update the Woodburn transportation model, make the 2005 revised Comprehensive Plan and the TSP internally consistent, and adopt regulations to implement the TSP.

660-012-0015 - Preparation and Coordination of Transportation System Plans

(3) *Cities * shall prepare, adopt and amend local TSPs for lands within their planning jurisdiction *** :***

(a) *Local TSPs shall establish a system of transportation facilities and services adequate to meet identified local transportation needs and shall be consistent with regional TSPs and adopted elements of the state TSP;*

(4) *Cities * shall adopt *** local TSPs *** as part of their comprehensive plans.***

(5) *The preparation of TSPs shall be coordinated with affected state and federal agencies, local governments, special districts, and private providers of transportation services.*

The Council adopted the 2005 TSP as an element of the Comprehensive Plan. The TSP contains a preferred transportation system for the City's UGB for implementation over the next 20 years. The preferred system meets the City's needs over the planning period and includes the following components:

- Street system plan
- Intracity and intercity transit facilities plans
- Pedestrian plan
- Bicycle plan
- Rail facilities plan
- Air, water, and pipeline transport facilities plans
- Transportation demand management programs

The 2005 TSP is consistent with the Marion County TSP and the Oregon TSP. As Woodburn prepared the 2005 TSP, it coordinated with the staffs of Marion County, ODOT and DLCD.

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Other agency plans and policies affecting the Woodburn TSP were reviewed and considered. See Chapter 2 of the 2005 TSP.

660-012-0020 - Elements of Transportation System Plans

- (1) A TSP shall establish a coordinated network of transportation facilities adequate to serve *** local transportation needs.**
- (2) The TSP shall include the following elements:**
 - (a) A determination of transportation needs***;**
 - (b) A road plan***. Functional classifications of roads*** consistent with functional classifications of roads in state and regional TSPs and shall provide for continuity between adjacent jurisdictions. The standards for the layout of local streets shall provide for*** bike and pedestrian circulation***. New connections to arterials and state highways shall be consistent with designated access management categories.*** The standards for the layout of local streets shall address:

[street extensions and connections]**

Figure 7-1 shows the functional classification designations for all existing and future streets. The 2005 TSP has the following street improvement standards for City streets.

- (i). Arterials
 - a. major arterial
 - b. minor arterial
- (ii). Service collector
- (iii). Access street/commercial with parking on both sides
- (iv). Local residential streets
 - a. with parking on both sides
 - b. with parking on one side (new)
 - c. with no parking (new)
- (v). Local industrial (new)

The street design standards are shown in Figure 7-2. The cross sections in Figure 7-2 are for planning and design purposes. On both access and local streets, the inclusion of planting strips will be determined at the time of development approval. In instances where no planting strip is provided, the sidewalk is to be curb-tight. On major and minor arterials, a raised median can be constructed in lieu of the center turn lane.

OTC has adopted a rule (OAR 734 Division 51) on access management standards that a city must use in its transportation planning. It includes provisions for development of access facility management plans and interchange management plans.

(c) A public transportation plan which:

The Woodburn transit system currently operates weekdays between the hours of 9:00 a.m. to 5:00 p.m. along a one-way route. The TSP looked at four transit alternatives that involved extending operating hours, frequency, and two-way routes. The TSP concluded that the order of preference for City implementation of the transit improvements is:

- Increase service frequency of the existing fixed route
- Convert the single route into two-way operations
- Create two routes in the east/west direction, with either one-way or two-way operations
- Consider converting paratransit system to a local social service
- Provide a fixed shuttle service between Woodburn and Portland or Salem

(d) A bicycle and pedestrian plan ***

The 2005 TSP identified a need for a continuous system of sidewalks or trails connecting neighborhoods with employment centers, pedestrian attractors, and transit stops. The 2005 TSP recommends that Woodburn should continue to require that new sidewalks that meet ADA standards and retrofit existing facilities, as funding is available, balanced with developing an off-street pathway system.

For bicycle facilities, the 2005 TSP recommends on-street bicycle lanes on all arterial streets and a limited number of higher volume collector streets. The on-street system would be supplemented by an off-street trail system developed along the Mill Creek and Goose Creek corridors. Retrofitting of existing streets should be balanced with the provision of an off-street pathway.

(h) Policies and land use regulations for implementing the TSP *;**

(i) * a transportation financing program *****

The amendments the Council made to the WDO are addressed elsewhere in these goal 12 findings. The 2005 TSP addresses transportation financing in Section 8.

(3) Each element identified in subsections (2)(b)–(d) of this rule shall contain:

(a) An inventory and general assessment of existing and committed transportation facilities and services by function, type, capacity and condition:

(A) The transportation capacity analysis shall include information on:

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- (i) **The capacities of existing and committed facilities;**
- (ii) **The degree to which those capacities have been reached or surpassed on existing facilities; and**
- (iii) **The assumptions upon which these capacities are based.**

***;

- (C) **The transportation facility condition analysis shall describe the general physical and operational condition of each transportation facility (e.g., very good, good, fair, poor, very poor).**

Section 3 of the 2005 TSP contains an inventory and an assessment of deficiencies of existing transportation facilities within the 2005 amended UGB. Section 4 of the 2005 TSP summarizes the anticipated future transportation system deficiencies. The methodology and assumptions for determining future deficiencies are addressed in Section 4 of the 2005 TSP.

Volume II of the 2005 TSP contains appendixes, which include data on the capacities of the existing transportation system. Appendix B contains worksheets on the existing level of service.

- (b) **A system of planned transportation facilities, services and major improvements. The system shall include a description of the type or functional classification of planned facilities and services and their planned capacities and levels of service;**
- (c) **A description of the location of planned facilities, services and major improvements, *** This shall include a map showing the general location of proposed transportation improvements ***;**
- (d) **Identification of the provider of each transportation facility or service.**

Woodburn assessed the needs of the road system; public transportation; bicycle and pedestrian system; air, rail, water and pipeline transportation. The assessment of needs is discussed in Chapter 4 of the 2005 TSP. Woodburn prepared an inventory of the existing conditions and deficiencies of its transportation system. See Chapter 3 and Volume II of the 2005 TSP. Woodburn then conducted an alternatives analysis that examined options including a no build alternative. From this information, Woodburn planned for a transportation system that includes road, public transportation, and bicycle and pedestrian plans and an associated financing program. The planned transportation system is discussed in Section 7 of the 2005 TSP.

660-012-0025 - Complying with the Goals in Preparing Transportation System Plans; Refinement Plans

- (2) **Findings of compliance with applicable statewide planning goals and acknowledged comprehensive plan policies and land use regulations shall be developed in conjunction with the adoption of the TSP.**

Woodburn, in Chapter 9 of the 2005 TSP, developed new comprehensive plan policies and zoning code language to ensure the 2005 TSP satisfies goal 12. Those plan policies and WDO

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amendments were adopted. Most notably, the WDO adopted a new overlay district intended to preserve planned capacity improvements to the Woodburn I-5 interchange with Oregon Highway 214. That new provision is the Interchange Management Area (IMA) section of the WDO. This findings document, supported by the UGB Justification Report, satisfies this requirement.

660-012-0030 - Determination of Transportation Needs

- (1) ***The TSP shall identify transportation needs relevant to the planning area and the scale of the transportation network being planned including:***
 - (a) ****** local transportation needs;***
 - (b) ***Needs of the transportation disadvantaged;***
 - (c) ***Needs for movement of goods and services to support industrial and commercial development planned for ***.***

- (3) ***Within urban growth boundaries, the determination of local and regional transportation needs shall be based upon:***
 - (a) ***Population and employment forecasts and distributions ***;***
 - (b) ***Measures adopted *** to encourage reduced reliance on the automobile.***

Woodburn evaluated its needs within the amended UGB in the planning area, in 2005 TSP chapters 3 and 4. The requirements of this section of the TPR guided that evaluation. The amended 2005 TSP is based on the coordinated 2020 population forecast of 34,919 and on the economic growth forecast in the Economic Opportunities Analysis and Economic Development Strategy. The amended TSP includes measures to encourage reduced reliance on the automobile. Transit system, pedestrian and bicycle facility improvements address needs of the transportation disadvantaged. A new south arterial is proposed, largely to meet the need for movement of goods and services to support industrial and commercial development.

660-012-0035 - Evaluation and Selection of Transportation System Alternatives

- (1) ***The TSP shall be based upon evaluation of potential impacts of system alternatives ***. The following shall be evaluated as components of system alternatives:***
 - (a) ***Improvements to existing facilities or services;***
 - (b) ***New facilities and services, including different modes or combinations of modes that could reasonably meet identified transportation needs;***
 - (c) ***Transportation system management measures;***
 - (d) ***Demand management measures; and***
 - (e) ***A no-build system alternative required by the National Environmental Policy Act of 1969 or other laws.***

- (3) **The following standards shall be used to evaluate and select alternatives:**
- (a) **The transportation system shall support urban *** development by providing types and levels of transportation facilities and services appropriate to serve the land uses identified in the acknowledged comprehensive plan;**
 - (b) **The transportation system shall be consistent with state and federal standards for protection of air, land and water quality including the State Implementation Plan under the Federal Clean Air Act and the State Water Quality Management Plan;**
 - (c) **The transportation system shall minimize adverse economic, social, environmental and energy consequences;**
 - (d) **The transportation system shall minimize conflicts and facilitate connections between modes of transportation;**
 - (e) **The transportation system shall avoid principal reliance on any one mode of transportation and shall reduce principal reliance on the automobile. *****
- (7) ***** local TSPs shall include interim benchmarks to assure satisfactory progress towards meeting the requirements of this section at five year intervals over the planning period. *****

The 2005 TSP contains information on the alternatives considered. All of the TPR factors including a no-build analysis were considered. See Chapter 5 of the 2005 TSP.

The Council added a new section to the WDO, the Interchange Management Area (IMA) Overlay District, to preserve capacity of the Woodburn I-5 interchange with Hwy. 214. The District establishes trip budgets for planned commercial and industrial uses for each parcel in the district and for the whole district. All land use applications for parcels in the district must include a traffic impact analysis consistent with OAR 734 Division 51. Any application that exceeds the parcel's trip budget are subject to mandatory transportation demand management measures. Woodburn is required to monitor the cumulative impact from commercial, industrial and public city's and ODOT's responsibilities are contained in an inter-governmental agreement adopted by the Council. The new district specifically authorizes Woodburn to impose approval conditions to manage transportation demand.

The 2005 TSP recommended five transportation demand management strategies that could be incorporated into the WDO. The Council included one of those recommendations in the periodic review amendment to the WDO. The Council adopted a new nodal neighborhood commercial zone district.

In Section 5, the TSP considered street alternatives (additional to a no-building alternative considered in Section 4). Alternative 1 represents the minimum improvements necessary to meet system requirements. Alternative 3 is desirable, but is dependent on coordination with Marion County. Alternative 2 includes full widening of Oregon 214 and construction of the South Arterial, and was selected as the preferred alternative to meet the City's long-term transportation goals because it balances the need for operational and mobility improvements with the constraints of funding and coordination with other jurisdictions.

660-012-0040 - Transportation Financing Program

- (1) ***** the TSP shall include a transportation financing program.**
- (2) **A transportation financing program shall include the items listed in (a)–(d):**
 - (a) **A list of planned transportation facilities and major improvements;**
 - (b) **A general estimate of the timing for planned transportation facilities and major improvements;**
 - (c) **A determination of rough cost estimates for the transportation facilities and major improvements identified in the TSP;**
- (3) ***** In addition to including rough cost estimates for each transportation facility and major improvement, the transportation financing plan shall include a discussion of the facility provider's existing funding mechanisms and the ability of these and possible new mechanisms to fund the development of each transportation facility and major improvement. ***.**

- (5) **The transportation financing program shall provide for phasing of major improvements to encourage infill and redevelopment of urban lands prior to facilities and improvements which would cause premature development of urbanizable lands or conversion of rural lands to urban uses.**

The 2005 TSP includes a financing plan that lists the planned facilities and improvements; estimated project timing, and identifies their rough cost estimates. See Chapter 8 of the 2005 TSP.

660-012-0045 - Implementation of the Transportation System Plan

- (1) **Each local government shall amend its land use regulations to implement the TSP.**

- (2) **Local governments shall adopt land use or subdivision ordinance regulations *** to protect transportation facilities, corridors and sites for their identified functions. Such regulations shall include:**
 - (a) **Access control measures *** which are consistent with the functional classification of roads ***;**

Section 3.104 of the WDO addresses access control standards.

- (b) **Standards to protect future operation of roads, transitways and major transit corridors;**

Section 3.104 of the WDO provides standards to protect the future operation of roadways and transit corridors.

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- (d) ***A process for coordinated review of future land use decisions affecting transportation facilities, corridors or sites;***

Section 5.103 and 5.104 of the WDO, regarding Type II and Type IV applications, provide for a coordinated review process.

- (e) ***A process to apply conditions to development proposals in order to minimize impacts and protect transportation facilities, corridors or sites;***

WDO Section 4.101.15 provides all city decision makers the authority to impose conditions of approval reasonably related to impacts caused by the development on designed to ensure that all applicable approval standards are, or can be, met on Type I, III and IV decisions.

- (f) ***Regulations to provide notice to public agencies providing transportation facilities and services, MPOs, and ODOT of:***
 - (A) ***Land use applications that require public hearings;***
 - (B) ***Subdivision and partition applications;***
 - (C) ***Other applications which affect private access to roads; and***

The Council amended WDO Sections 4.101.09, 5.103.07 and 5.105.09 to require notice of an application to ODOT and Marion County (if affected) of a preliminary partition, access to a city major or minor arterial street that requires a transportation impact analysis, preliminary PUD, preliminary subdivision and conditional use permit.

- (g) ***Regulations assuring that amendments to land use designations, densities, and design standards are consistent with the functions, capacities and levels of service of facilities identified in the TSP.***

The Council amended WDO sections 5.104.02 (owner initiated plan map changes) and 5.104.04 (owner initiated zoning map changes) to address this requirement. The city must review both types of application to determine whether a transportation facility will be significantly affected and may require a Transportation Impact Analysis (TIA). The amendments add new approval criteria if the application would significantly affect a transportation facility. The Council amended WDO Section 6 Q to add comprehensive plan map changes and zoning map changes to the circumstances when the city could require a TIA.

- (3) ***Local governments shall adopt land use or subdivision regulations for urban areas *** as set forth below. ***.***
 - (a) ***Bicycle parking facilities as part of new multi-family residential developments of four units or more, new retail, office and institutional developments, and all transit transfer stations and park-and-ride lots;***

The Council amended WDO Section 3.105.02 to include multi-family dwelling units with four units to uses that are required to provide a bicycle rack.

- (b) **On-site facilities shall be provided which accommodate safe and convenient pedestrian and bicycle access from within new subdivisions, multi-family developments, planned developments, shopping centers, and commercial districts to adjacent residential areas and transit stops, and to neighborhood activity centers within one-half mile of the development. Single-family residential developments shall generally include streets and accessways. Pedestrian circulation through parking lots should generally be provided in the form of accessways.**
- (A) **"Neighborhood activity centers" includes, but is not limited to, existing or planned schools, parks, shopping areas, transit stops or employment centers;**
- (B) **Bikeways shall be required along arterials and major collectors. Sidewalks shall be required along arterials, collectors and most local streets in urban areas, * * * ;**
- (C) **Cul-de-sacs and other dead-end streets may be used as part of a development plan, consistent with the purposes set forth in this section;**
- (D) **Local governments shall establish their own standards or criteria for providing streets and accessways consistent with the purposes of this section. * * * ;**

WDO Section 3.107.06 includes provisions for pedestrian and bicycle circulation and access. WDO Figure 6.9 shows street sections that include bicycle lanes and sidewalks for arterials, collectors, and most local streets. WDO Section 3.101.02.F.3 addresses the continuity of public bikeway and pedestrian facilities located off-street.

- (c) **Where off-site road improvements are otherwise required as a condition of development approval, they shall include facilities accommodating convenient pedestrian and bicycle travel, including bicycle ways along arterials and major collectors;**

WDO Section 3.101.02.D.1.b addresses pedestrian and bikeway facilities. WDO Figure 6.9 shows street sections that include bicycle lanes and sidewalks for arterials, collectors and most local streets.

* * *

- (e) **Internal pedestrian circulation within new office parks and commercial developments shall be provided through clustering of buildings, construction of accessways, walkways and similar techniques.**

WDO Section 3.107.06 includes provisions for pedestrian and bicycle circulation and access.

* * *

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- (6) ***In developing a bicycle and pedestrian circulation plan * * * local governments shall identify improvements to facilitate bicycle and pedestrian trips to meet local travel needs in developed areas. * * ****
- (7) ***Local governments shall establish standards for local streets and accessways that minimize pavement width and total right-of-way consistent with the operational needs of the facility. * * * Notwithstanding subsection (1) or (3) of this section, local street standards adopted to meet this requirement need not be adopted as land use regulations.***

The Council amended WDO Sections 3.101.03.A and B, and Table 3.1.1. The amendments removed figure 6.6 street cross section standards from the WDO and replaced it with figures 7-2 and Table 7-1 of the Transportation System Plan. There is a standard for each functional classification and the standards minimize the amount of pavement and ROW required for each street classification.

Woodburn has satisfied these requirements. See Chapter 9 of the 2005 TSP.

Woodburn added a new Interchange Management Area overlay district (IMA) to the WDO to monitor and manage the transportation capacity, safety and functionality around and at the Woodburn Interchange through trip generation estimates and numerical ceilings based on land use. The IMA district includes an exception for small properties.

660-012-0060 - Plan and Land Use Regulation Amendments

- (1) ***Where an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation would significantly affect an existing or planned transportation facility, the local government shall put in place measures as provided in section (2) of this rule to assure that allowed land uses are consistent with the identified function, capacity, and performance standards (e.g. level of service, volume to capacity ratio, etc.) of the facility. * * ****
- (2) **** * * compliance with section (1) shall be accomplished through one or a combination of the following:***
 - (a) ***Adopting measures that demonstrate allowed land uses are consistent with the planned function, capacity, and performance standards of the transportation facility.***
 - (b) ***Amending the TSP or comprehensive plan to provide transportation facilities, improvements or services adequate to support the proposed land uses consistent with the requirements of this division; such amendments shall include a funding plan or mechanism consistent with section (4) or include an amendment to the transportation finance plan so that the facility, improvement, or service will be provided by the end of the planning period.***
 - (c) ***Altering land use designations, densities, or design requirements to reduce demand for automobile travel and meet travel needs through other modes.***

- (d) **Amending the TSP to modify the planned function, capacity or performance standards of the transportation facility.**
- (e) **Providing other measures as a condition of development or through a development agreement or similar funding method, including transportation system management measures, demand management or minor transportation improvements. Local governments shall as part of the amendment specify when measures or improvements provided pursuant to this subsection will be provided.**

The periodic review package contains amendments to functional plans, the Woodburn acknowledged comprehensive plan, and land use regulations. A principal reason for comprehensive plan amendments was to increase the supply of suitable industrial sites within the UGB. When compared with rural or residential land uses, industrial land uses generate relatively high levels of traffic, especially during peak hours. Therefore, industrial plan amendments are likely to "significantly affect a transportation facility."

The City revised the TSP to reflect changes in population, employment and land use adopted in the revised 2005 comprehensive plan. The 2005 TSP includes goals and objectives, forecasts traffic growth in the City, and identifies transportation improvements needed to satisfy the forecasted growth. The 2005 TSP:

- Establishes the functional classification of roads and streets
- Evaluates interchange alternatives
- Establishes alternative modes of transportation

Subsections (1) and (2) require that the levels of development allowed by amendments to the comprehensive plan, functional plan and development regulations result in levels of traffic that are consistent with the performance standards established in the TSP for existing and planned transportation facilities. The rule provides that a city can satisfy this requirement in one of five ways. Woodburn satisfied the requirement by following subsection (2)(b). The Council amended the TSP to provide facilities, improvements and services adequate to support the land uses in the amended Comprehensive Plan, including adopting a funding plan to provide the facility, improvements or services by the end of the planning period (year 2020).

* * *

- (4) **Determinations under sections (1)-(3) of this rule shall be coordinated with affected transportation facility and service providers and other affected local governments.**

As Woodburn prepared the 2005 TSP, it coordinated with the staffs of Marion County, ODOT and DLCD. Other agency plans and policies affecting the Woodburn TSP were reviewed and considered.

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CONCLUSION:

The City of Woodburn's Transportation System Plan (2005) complies with the requirements of Goal 12 regarding transportation.

Goal 13: Energy Conservation

Goal 13 Provides as follows:

To conserve energy.

Land and uses developed on the land shall be managed and controlled so as to maximize the conservation of all forms of energy, based upon sound economic principles.

LCDC has adopted a rule implementing Goal 13. There are no known non-renewable sources of energy in the Woodburn UGB. The 2005 comprehensive plan and implementing regulations increase allowed residential densities to an average of 10 units per acre and require all development to achieve at least 80% of the density allowed. Under commonly used measures of need, Woodburn has a need for an additional 202 net buildable commercial acres. The Council added only 32 net buildable acres of commercial land (about 5% of the existing commercial land base) to meet future need. Consequently, most future commercial employment would be located on existing commercial lands through intensification and redevelopment, which reduces the length of vehicle trips traveled.

The 2005 UGB amendments are adjacent to the existing UGB, thus maintaining a contiguous, compact, energy-efficient urban growth form and reducing vehicle miles traveled. The UGB amendments rely on gravity flow sanitary sewer collection, thus eliminating the need for sanitary sewer pump stations.

Goal 13 requirements have been met by using transportation facilities more efficiently, and minimizing vehicle miles traveled by placing housing near employment.

Comprehensive Plan Amendment

Woodburn amended one energy policy, as follows:

- 1-2. The City shall *increase its commitment to energy conservation, including alternative energy vehicles, increased recycling, and reduction in out-of-direction travel. The City shall encourage its citizens and visitors to conserve energy. Where feasible, the City should retrofit City buildings and structures so that they may be more energy efficient.*

EXHIBIT 5-B

5-B

**WOODBURN UGB
JUSTIFICATION REPORT**

**Winterbrook Planning,
October 2005**

**WOODBURN UGB JUSTIFICATION REPORT
(STATEWIDE PLANNING GOAL FINDINGS)**

October 2005

Item No. 10
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INTRODUCTION

This report provides an overall justification for the proposed *Woodburn Comprehensive Plan* (Plan) and Urban Growth Boundary (UGB) amendment package – substantially as recommended by the Woodburn Planning Commission. This report incorporates some recommended changes to plan designations within the UGB and to the UGB itself – based on comments received during the City Council's public hearing and deliberation process. **The City of Woodburn has elected to proceed with the proposed plan and code amendment package based on the "new" Statewide Planning Goal 14 (Urbanization), which was adopted by the Land Conservation and Development Commission (LCDC) in April of 2005, and became effective on June 28, 2005.**

Report Organization

The UGB Justification Report is organized to address Statewide Planning Goal 14 (Urbanization) requirements for urban growth boundary amendments.

First, an **Executive Summary** explains the underlying rationale for the proposed amendment package, in terms of local objectives and Oregon land use planning program requirements.

Part I of this report addresses Year 2020 land needs and the capacity of the existing UGB to meet these needs, as required by the "Land Need" subsection of the amended Goal 14, which reads as follows:

"Establishment and change of urban growth boundaries shall be based on the following:

(1) Demonstrated need to accommodate long range urban population, consistent with a 20-year population forecast coordinated with affected local governments; and

(2) Demonstrated need for housing, employment opportunities, livability or uses such as public facilities, streets and roads, schools, parks or open space, or any combination of the need categories in this subsection (2).

In determining need, local government may specify characteristics, such as parcel size, topography or proximity, necessary for land to be suitable for an identified need."

UGB amendments are also governed by applicable Oregon state statutes and applicable Land Conservation and Development (LCDC or Statewide Planning) Goals and administrative rules (OARs).¹

Statewide Planning Goals 5 (Natural Resources, Scenic and Historic Areas, and Open Spaces) and 7 (Areas Subject to Natural Hazards) also apply to the determination of those lands that are "buildable" and those that are not. Goals 9 (Economy of the State) and 10 (Housing) apply to the determination of employment and housing needs. These Goals are further refined in the Goal 9 Rule (OAR Chapter 660, Division 009) and the Goal 10 Rule (OAR Chapter 660, Division 008). Goals 8 (Recreational Needs) and 11 (Public Facilities and Services) inform needs determinations for parks and schools.

ORS 197.296 (factors to establish sufficiency of buildable lands within urban growth boundary; analysis and determination of residential housing patterns) requires local governments to meet identified housing needs and to increase land use efficiency within the UGB before expanding onto adjacent rural lands. ORS 197.303 to 197.314 require local governments to provide for "needed housing types" under clear and objective zoning standards.

Therefore, Part I of this report also incorporates findings related to compliance with Statewide Planning Goals 5, 7, 8, 9, 10 and 11, and applicable statutes and rules, as well as Goal 14 (Urbanization). Part I also addresses ORS 197.296 and 197.303 to 197.314 statutory requirements.

Part II of this report addresses ORS 197.296 and Goal 14 requirements related to land use efficiency within the existing (2002) and adopted (2005) UGB. In particular, this section explains "measures" adopted to increase land use efficiency within the existing UGB, and explains "why identified needs cannot reasonably be accommodated on land already inside the urban growth boundary." Throughout this report: the existing (pre-amendment) UGB is referred to as the **2002 UGB** (the base year); and the amended UGB is referred to as the **2005 UGB**.

Part III of this report addresses ORS 197.298 "priorities" and the "Boundary Location" subsection of Goal 14, which reads as follows:

"The location of the urban growth boundary and changes to the boundary shall be determined by evaluating alternative boundary locations consistent with ORS 197.298 and with consideration of the following factors:

- (1) Efficient accommodation of identified land needs;***
- (2) Orderly and economic provision of public facilities and services;***

¹ For jurisdictions choosing to apply the amended Goal 14, the goal "exception" requirements of ORS 197.732, Part II of Goal 2 (Land Use Planning), and OAR 660-004-0010(1)(c) and 660-004-0020 no longer apply to UGB amendments.

(3) Comparative environmental, energy, economic and social consequences; and

(4) Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB.²

ORS 197.298 establishes "priorities" for determining which lands should be added to a UGB. The location of UGB amendments also must be consistent with applicable Land Conservation and Development Commission (LCDC) or Statewide Planning Goals. Statewide Planning Goals 5 (Natural Resources, Scenic and Historic Areas, and Open Spaces) and 7 (Areas Subject to Natural Hazards) also apply to the determinations of which lands are "buildable" and which are not.

Comprehensive Plan and WDO Amendments Relied On

The findings in this report, and the Planning Commission's recommendation, rely on the adoption of documents amending the Woodburn Comprehensive Plan (including the Economic Development Strategy (EDS), Public Facilities Plan (PFP), Transportation Systems Plan (TSP) and Land Development Ordinance (WDO):

- Woodburn Comprehensive Plan amendments (City of Woodburn, 2005):
 - Woodburn Comprehensive Plan Map (City of Woodburn, 2005);
 - Woodburn Economic Development Strategy (ECONorthwest, 2002);
 - Woodburn Public Facilities Plan Project Tables and Maps (City of Woodburn, 2005); and
 - Woodburn Transportation Systems Plan Update (CH2M Hill, 2005).
- Woodburn Land Development Ordinance and Map amendments (City of Woodburn, 2005).

Intergovernmental Agreements

In 2004-05, Woodburn staff coordinated with Marion County and the Oregon Department of Transportation (ODOT) in drafting two intergovernmental agreements.

- Draft Urban Growth Boundary Coordination Agreement (UGBCA) with Marion County (May 2005)
- Draft Intergovernmental Agreement (IGA) with ODOT (September 2005)²

The first addresses the Marion County Growth Management Framework Plan (Framework Plan) policy requirement that a new intergovernmental agreement be in place before the County adopts City comprehensive plan amendments that require County approval. The

² A second draft IGA is being developed between the City and ODOT regarding funding commitments for interchange improvements.

second addresses implementation and monitoring of new development with the Interchange Management Area (IMA) Overlay District.

Principal Support Documents

The findings in this report, and the Planning Commission's recommendation, are based on the background studies and memoranda listed below. In some cases, these reports and memoranda have been modified to support recommended changes resulting from the City Council's public hearing and deliberation process. In other cases, the City found minor mistakes in background documents that have been corrected. In cases of conflict, the findings in this report shall prevail.

Woodburn Comprehensive Plan and UGB Amendment Justification Studies (Volume II)

- Technical Report 1 – Buildable Lands Inventory (Winterbrook, 2005)
- UGB Study Area Public Services Analysis (City of Woodburn, 2004)
- Site Requirements For Woodburn Target Industries (ECONorthwest, 2003)
- Technical Report 2 – Residential Land Needs Analysis (Winterbrook, May 2005)
- Technical Report 3 – Potential UGB Expansion Area Analysis and Natural Resources Inventory (Winterbrook, 2002)
- Population and Employment Projections 2000-2020 (ECONorthwest, 2002)
- Economic Opportunities Analysis (ECONorthwest, 2001)
- Economic Development Strategy (ECONorthwest, 2002)
- Explanation of Proposed Plan and Zoning Map Changes (City of Woodburn, 2004)
- Analysis of Public Facilities to Serve UGB Study Areas (PFP, Appendix C)

Background Maps

The Council relied on the following maps to support its decision to expand the UGB:

- Buildable Lands Inventory Map (Winterbrook/City of Woodburn, 2005)
- UGB Study Area Natural Resources and Soil Capability Classes Map (Winterbrook/Marion County, 2005)
- Study Areas (1-8) Soil Capability Classes Maps (City of Woodburn, 2005)
- Public Facilities Maps for UGB Expansion Areas (PFP, Appendix B)

Additional Background Studies and Plans

The Council also relied on the following secondary sources of information:

- Occupation/Wage Forecast (ECONorthwest, 2003)
- Storm Drainage Master Plan (Crane & Merseth, 2002)
- Water Master Plan (HDR, 2001)
- City of Woodburn Local Wetlands Inventory and Riparian Assessment (Shapiro, 2000)
- Woodburn Local Wetland Inventory Map (Shapiro, 2000)
- Woodburn Wastewater Facilities Plan, Volumes 1-3 (CH2MHill, 1995)

-
- City Staff Reports to the Planning Commission and City Council (2004 and 2005)
 - Winterbrook Memoranda to the Planning Commission and City Council Responding to Public and Agency Comments (2004 and 2005)
 - "Ridgefield growth continues with 330-acre mixed-use project," (The Daily Journal of Commerce, August 16, 2005).

Population Coordination Documents

The following documents support the City's coordinated 20-year population projection:

- Marion County Comprehensive Plan Amendments Memo (Winterbrook, 2004)
- Evaluation of 2004 OEA Population Forecast (ECONorthwest, 2004)
- Marion County Ordinance 1201 and Findings Approving Population Projection
- Marion County Board Minutes of November 10, 2004

Documents Not Relied Upon

The City Council deliberately did not rely on the following documents in making its decision to amend the Woodburn UGB because these documents have been updated and are superceded by the documents cited above:

- Woodburn Buildable Lands and Urbanization Project (McKeever/Morris, 1998)
- *Preliminary* Transportation Scenarios (Winterbrook, 2003)

EXECUTIVE SUMMARY

This summary explains the underlying planning and legal rationale for the proposed Woodburn Comprehensive Plan (comprehensive plan or plan) and Development Ordinance (WDO) amendment package – including the proposed UGB amendments. **These findings demonstrate consistency with Statewide Planning Goal 14 – Urbanization, as amended by the Land Conservation and Development Commission, effective June 28, 2005.**

The plan and ordinance amendment package is designed to allow the City of Woodburn to achieve local community planning and economic development objectives – in coordination with Marion County – and consistent with Oregon’s land use planning program. This has not been an easy task: Woodburn, Marion County, the Department of Land Conservation (DLCD) and the Oregon Department of Transportation (ODOT) have been working to achieve this goal since Woodburn’s Periodic Review Work Program was approved in 1999.

Community Planning Objectives

As emphasized over the last two years in technical advisory committee meetings, a joint Planning Commission / Council work session held in November of 2003, a series of public open houses, four Planning Commission work sessions, public hearings before the Marion County Board of Commissioners, and the Woodburn Planning Commission and City Council, **the 2005 amendment package is designed to achieve seven inter-related objectives:**

1. Implement the Woodburn Economic Opportunities Analysis (EOA) and Economic Development Strategy (EDS) by encouraging higher wage jobs in the community, providing choice among suitable industrial sites and requiring master planning to meet the needs of targeted industries (as required by Goal 9, Goal 14, and ORS 197.712);
2. Provide improved transportation connections and preserve the capacity of the I-5 Interchange by adopting a revised Transportation System Plan and a new I-5 Interchange Management Area Overlay District, providing for east-west transportation corridors and relieving congestion at the critical I-5 Interchange (as required by Goal 12, the Transportation Planning Rule, and Goal 14, Boundary Location Factor 2).
3. Provide buildable land for housing, parks and schools while increasing land use efficiency, connectivity and livability through good urban design (consistent with Goals 8, 10, 11, 12 and 14; the City’s housing needs, parks master plan, and school facilities analysis; ORS 197.296, and the Marion County Framework Plan);
4. Protect Woodburn’s stream corridors, floodplains and wetlands from urban encroachment (as required by Goals 5 and 7, and Goal 14 Boundary Location Factor 3).

5. Preserve farmland and minimize impacts on agricultural land (as required by ORS 197.298, the Marion County Framework Plan, and Goal 14 Boundary Location Factor 4);
6. Coordinate with Marion County by using the coordinated population projection that Marion County allocated to Woodburn, incorporating Framework Plan policies into the Woodburn Comprehensive Plan, considering recommendations where possible, and adopting a new Urban Growth Management Agreement (as required by Goal 2 and ORS Chapter 195);
7. Complete the City's Periodic Review process (as required by the City's Periodic Review Work Program and ORS 197.628 to 197.636);

The 2002-2005 Planning Process

From 2002-2003, Winterbrook staff worked closely with ODOT, DLCD, Marion County and City planning and public works staff to prepare a draft comprehensive plan and WDO amendment package. During this period, Winterbrook also conducted its preliminary housing, school and park needs analysis, and buildable lands inventories for land within the existing UGB, and for 8 study areas surrounding the UGB.³ Winterbrook and Woodburn planning staff presented this package to a joint work session of the Woodburn Planning Commission and City Council on November of 2003. The Marion County Board of Commissioners approved the City's Year 2020 population projection of 34,919 in November of 2004. During the next year, the City conducted open houses, planning commission work sessions, the Planning Commission public hearing, and City Council public hearings and deliberations that resulted in the 2005 package of recommendations.

Step 1: The Foundation – Woodburn's Economic Opportunities Analysis (EOA) and Economic Development Strategy (EDS)

Winterbrook Planning used the Council-approved Economic Opportunities Analysis (ECONorthwest, 2001) and Economic Development Strategy (ECONorthwest, 2001) as the foundation for its recommendations to the City Planning Commission and Council. Chapter 4 and Appendix B of the EOA identify "target industries" based on Woodburn's comparative economic advantages and local policy objectives, and describe the site requirements of each "targeted" employment category and for master planned employment parks. In simple terms, the EOA and EDA recommend that Woodburn capitalize on its principal comparative advantages:

- the City's Interstate 5 location between Salem and Portland;

³ Please see Technical Report 1 – Buildable Lands Inventory (Winterbrook Planning, revised in May 2005); Technical Report 2 – Residential Land Needs Analysis (Winterbrook Planning, revised in May of 2005); and Technical Report 3 – Potential UGB Expansion Area Analysis and Natural Resources Inventory (Winterbrook Planning, 2003); Buildable Lands Inventory Map (Winterbrook/City of Woodburn, 2005); UGB Study Area Natural Resources and Soil Capability Classes Map (Winterbrook Planning, Revised in May of 2005). These documents were updated for accuracy and clarity based on public and agency comments.

-
- the availability of large tracts of flat land with direct access (i.e., within two miles of) the I-5 Interchange with Highway 214; and
 - the City's commitment and ability to provide required urban services to these sites in the short-term.

The EOA also determined that Woodburn lacked an adequate supply of suitable sites within its existing UGB to attract targeted employers, and noted that the City's population was growing at a much faster rate than projected in Marion County's "coordinated" forecast. In 2002-03, ECONorthwest identified the site *size* requirements for targeted employment categories identified in the EOA.⁴

To implement the recommendations of the EOA and ECONorthwest's Target Industries Site Requirements Memorandum (2003), Winterbrook recommended inclusion of some 400 gross acres within a "Southwest Industrial Reserve" (SWIR) comprehensive plan overlay designation and zoning district. To ensure direct access from the west to I-5, while minimizing inclusion of Class I and II agricultural soils, the SWIR is located immediately west and south of developed I-5 industrial land.⁵ Part 1 of this report further describes the site suitability criteria used to identify land for inclusion within the SWIR. The SWIR district reserves land exclusively for targeted employment categories identified in the EOA, and requires master planning to ensure efficient provision of public facilities and services, and retention of sites in parcel sizes prescribed in ECONorthwest's 2003 Target Industries Site Requirements Memorandum.

As noted in the Council's Goal 14 Boundary Location findings, most of the SWIR is considered serviceable and available for development within the next five years. Land on the west side of I-5 and east of Butteville Road⁶ can be served immediately with sanitary

⁴ Please see "Site Requirements For Woodburn Target Industries" (ECONorthwest, 2003) and "Population and Employment Projections 2000-2020" (ECONorthwest, 2003). Woodburn's 2020 population projection of 34,919 was adopted in November of 2004 by the Marion County Board of Commissioners. The 2005 plan and ordinance amendment package is based on ECONorthwest's high employment projection of 8,374 new employees. These projections represent a population increase of 74% from 2000-2020, in contrast to an employment increase of 81% for the same period.

⁵ As documented in Part III of this report, the SWIR includes the largest concentration of relatively low quality Class III agricultural soils within the 8 study areas. To minimize intrusion into Class I and II agricultural soils, the City decided not to extend the SWIR west of Butteville Road. Although land to the east of Butteville Road contains primarily Class II agricultural soils, it must be developed to (a) pay for improvement of the Butteville Road arterial street to City standards, and (b) extend urban sewer, water and drainage services to other properties within the SWIR.

⁶ As explained in the Goal 14 Boundary Location findings in Part III, the City Council removed the easterly 70 acres of Tax Lot 1300 (to the west of Butteville Road) from the UGB expansion, because it is comprised primarily of Class II soils and its development is not necessary to extend services to areas with lower quality agricultural soils. Based on comments from 1000 Friends of Oregon (1000 Friends), 52W23 Tax Lot 100, located east of I-5 south of the "South Arterial" was included within the SWIR instead, because it is comprised primarily of Class III agricultural soils, and its development will help defray the costs of constructing the South Arterial.

sewer, water, drainage and transportation services. The City Council expects SWIR parcels served by Parr Road and the planned extension of Evergreen Road to be development-ready within 2-5 years. As a result of a recent subdivision approval, Evergreen Road will be extended to the southern edge of the 2004 UGB in 2006.

Over the next 5-10 years, the remainder of the SWIR will become development ready, as industrial land developers pay (through frontage improvements, local improvement districts and systems development charges) for street extensions for Evergreen Road to the "South Arterial", Butteville and Parr Roads, and for the "South Arterial" connecting Evergreen Road with Butteville Road (including the Butteville Road Overpass) and for utility extensions.

Step 2: The Transportation System Plan (TSP)

From 2002 - 2005, Winterbrook and City staff worked closely with CH2M Hill, ODOT, and Marion County on the update to the Woodburn Transportation Systems Plan. The 2001 EOA had found that the greatest impediment to Woodburn's economic success was congestion at the I-5 / Highway 214 Interchange. To address this I-5 capacity and access problem, the TSP includes three solutions:

1. **I-5 Interchange Improvements:** Construct some \$72 million in I-5 Interchange and Highway 214 improvements funded through a combination of local, state, federal and private funds. As noted in the Woodburn TSP, the Council expects that industrial and commercial developers served by the I-5 interchange will contribute to the timely construction of interchange improvements by (a) forming of a LID, and (b) paying SDC fees.
2. **Ring Road System:** Create alternative east-west and north-south arterial routes to encourage traffic to access I-5 from the west, where Interchange traffic congestion is less acute. Improvements to Butteville, Parr and Evergreen Roads, and the western leg of the "South Arterial", are necessary to the successful implementation of Woodburn's Economic Development Strategy. As a condition of annexation to the City, Woodburn will require frontage improvements and construction of over-sized utility lines consistent with an approved master plan, to ensure the sequential development of land within the SWIR overlay.
3. **Interchange Management Area (IMA) Overlay District:** To ensure that investments in the long-term capacity of the I-5 Interchange are well managed, the Council adopted few comprehensive plan policies and a new IMA Overlay District. This district will ensure the preservation of I-5 Interchange capacity by (a) prohibiting plan amendments that increase land available for commercial land uses, and (b) establishing district-wide and parcel-specific trip budgets. Monitoring cumulative traffic impacts will be ensured through an intergovernmental agreement between Woodburn and ODOT.

The success of Woodburn's economic development strategy depends on completion of the arterial street network, combined with major improvements to the I-5 / Highway 214 Interchange and measures to preserve its long-term capacity. Without these

improvements, congestion at the I-5 Interchange will continue to worsen, and Woodburn will suffer the same comparative *disadvantage* faced by I-5 communities with congested interchanges – such as Tualatin and Wilsonville to the north. Woodburn and ODOT staff have prepared a draft Intergovernmental Agreement (IGA) to ensure coordinated implementation and monitoring of Interchange Preservation Plan and IMA Overlay District.

Step 3: Providing Buildable Land for Residential Neighborhoods While Increasing Efficiency of Land Use

From 2002-03, Winterbrook conducted a preliminary housing, school and park needs analysis, and buildable lands inventories for land within the existing UGB and for eight study areas surrounding the UGB.⁷ Since park, school and institutional needs typically are met on land designated for residential use, these needs are incorporated into the residential land needs analysis. Winterbrook revised these preliminary studies in response to public and agency comments, and changes in comprehensive plan designations, in 2005.

The planning period runs from 2002 through 2020. The City's land needs analysis and buildable lands inventory are based on 2002 data. As of 2002, Woodburn had 511 net buildable acres⁸ of land designated for residential use inside the then-existing UGB.

From 1988-2002, Woodburn developed at an average density of 7.25 dwelling units per net buildable acre. There are several reasons for this relatively high density figure: (1) much of Woodburn's single-family residential housing during this period was developed through the PUD process, resulting in relatively small subdivision lots clustered around a golf course; (2) Woodburn experienced a relatively high proportion of multiple-family units (31%) built during this period; (3) most of Woodburn's residential development occurred on relatively large parcels – leaving many smaller, partially-vacant parcels that are unlikely to develop as efficiently in the future; and (4) actual density calculations did not include single-family homes constructed on infill parcels created through the less-efficient partitioning process.⁹

⁷ Please see Technical Report 1 – Buildable Lands Inventory (Winterbrook Planning, revised in May 2005); Technical Report 2 – Residential Land Needs Analysis (Winterbrook Planning, revised in May of 2005); and Technical Report 3 – Potential UGB Expansion Area Analysis and Natural Resources Inventory (Winterbrook Planning, 2003); Buildable Lands Inventory Map (Winterbrook/City of Woodburn, 2004); UGB Study Area Natural Resources and Soil Capability Classes Map (Winterbrook Planning, Revised in May of 2005). These documents were updated for accuracy and clarity based on public and agency comments and Council direction; however, the parcel data base is from 2002.

⁸ Please note that Winterbrook defined a "net buildable acre" as 43,560 square feet of land exclusive of protected constrained areas (floodplain, wetlands, riparian corridors) and needed public rights-of-way. Thus, a 10-acre residential site with 2 acres of protected riparian/floodplain area, would have six buildable acres, assuming 20% of the site (another 2 acres) is dedicated for streets.

⁹ Actual single family densities are based on the actual density in approved subdivisions and planned unit developments. Parcels approved through the less-efficient partitioning process (resulting in 3 or fewer parcels) were not included in actual density calculations. Actual densities for parcels approved through the partitioning process occurred at less than 3 units per net buildable acre. Thus, the actual densities would have been slightly lower had single-family homes approved through the portioning process been included.

As noted in the Part I of this Report (Goal 14 Residential Land Needs), if recent actual housing density trends and mix were to continue to 2020, Woodburn would need 680 net buildable residential acres (outside of exception areas) through 2020 to provide for housing. As noted in the Part I Goal 14 Public and Semi-Public Use Land Needs findings, through 2020 Woodburn would also need 210 net buildable residential acres for public/semi-public uses. Together, these needs would require an expansion of the existing UGB residential land supply by about 380 net buildable acres, to meet the housing, park, school and institutional needs of 13,722 new residents living outside of group quarters.¹⁰

Recognizing that ORS 197.298 requires local governments to look first to "exception areas," Winterbrook carefully analyzed the capacity of residential exception areas adjacent to the existing UGB to meet identified housing needs. Winterbrook determined that approximately 295 low-density residential dwelling units,¹¹ and 105 medium-density dwelling units, could be accommodated in adjacent exception areas. This reduced the number of housing units to be accommodated on other buildable lands by 400 – from 13,722 to 13,322 units.

As a result of the housing needs analysis, the Council determined that a wider range of housing types would be needed in the future, including small-lot single-family (Nodal SFR), attached single-family (row homes), and vertical mixed use housing (above retail in the downtown and nodal commercial zones). Overall, the housing needs analysis projects a 60:40 single-family to multiple-family split, with an average density of 8.9 dwellings per net buildable acre outside of built and committed exception areas. After accounting for lower single-family densities projected within highly-parcelized exception areas, planned urban residential development is projected to occur at an overall density of 7.8 dwellings per net buildable acre.

As explained in Part II, the adoption of specific land use efficiency measures reduces Year 2020 net buildable residential land needs by 130-160 acres, depending on the "base case scenario" selected.

Step 4: Protect Stream Corridors, Floodplains and Wetlands

The 2005 plan and code amendment package includes specific "safe harbor" policies and land use regulations to protect inventoried riparian corridors and locally significant wetlands. Residential, commercial and industrial construction is also prohibited within "undeveloped" floodplain areas, as mapped on the Woodburn Buildable Lands Inventory (BLI). Therefore, protected riparian corridors, wetlands and floodplains are excluded from the BLI.

¹⁰ This analysis assumed an average household size of 2.9 persons and an average vacancy rate of 5%. Group quarters are non-institutional living arrangements for persons not living in conventional housing units or groups living in housing units containing nine or more persons unrelated to the person in charge.

¹¹ Projected density in highly-parcelized exception areas is slightly higher density (3.0 units per net buildable acre) than actually occurred on infill projects approved through the partitioning process in Woodburn from 1998-2002 (2.4 units per net buildable acre).

Step 5: Preserve and Limit Impacts to Agricultural Land

ORS 197.298 sets forth rigid priorities for inclusion of land within UGBs once a need has been established. Willamette Valley communities like Woodburn must first look to exception areas, and then to agricultural land to meet these needs. Agricultural land with lower agricultural suitability soil classes has higher priority for inclusion within UGBs than higher class agricultural soils.

Woodburn is surrounded by Class II agricultural land and has relatively few adjacent exception areas. Except for the MacLaren School site, the Council included all adjacent exception areas within the UGB. The capacity of each exception area to absorb future employment and housing has been accounted for in this UGB land needs assessment. Even after increasing intensity of land use within the existing UGB and the capacity of adjacent exception areas, Woodburn still needs additional buildable land to meet planned population and employment growth. Therefore, to meet Year 2020 growth needs, the City has no choice but to expand onto Class II agricultural land.

ORS 197.298(3) sets forth reasons why a City may include lower priority land (i.e., land with higher agricultural suitability) within a UGB:

(3) Land of lower priority under subsection (1) of this section may be included in an urban growth boundary if land of higher priority is found to be inadequate to accommodate the amount of land estimated in subsection (1) of this section for one or more of the following reasons:

(a) Specific types of identified land needs cannot be reasonably accommodated on higher priority lands;

(b) Future urban services could not reasonably be provided to the higher priority lands due to topographical or other physical constraints; or

(c) Maximum efficiency of land uses within a proposed urban growth boundary requires inclusion of lower priority lands in order to include or to provide services to higher priority lands.

Under ORS 197.298, higher priority is given to land with lower agricultural productivity – provided that the land with lower agricultural productivity can meet specific identified needs. While some Class IV-VI agricultural soils exist in the 8 study areas, they are associated with unbuildable stream corridors, and therefore are unsuitable to meet residential or employment land needs. In the Woodburn area, buildable land that meets suitability criteria for residential, commercial, industrial and public land uses is found almost entirely on Class I-III agricultural soils.

As noted above, Class I soils have the lowest priority for inclusion within any UGB. As shown on attached maps, Study Areas 1 and 3-7 have little or no Class I soil. However, there are substantial inclusions of Class I soil in two study areas: SA-2 (North – 40 acres) and SA-8 (West – 29 acres).

- In compliance with ORS 197.298 priorities, the City made the difficult decision not to include any land in SA-8 to the west of Butteville Road within the SWIR. Although large, flat and serviceable parcels proximate to I-5 are located between the railroad

tracks and Butteville Road, the Council concluded that these parcels should be retained as agricultural land because they are comprised primarily of Class I and II agricultural soils, and their inclusion cannot be justified for "reasons" found in ORS 197.298(3).

- Similarly, the Council decided to exclude almost all of the Class I land within SA-2 to address statutory priorities. Although the Council agrees with Renaissance Homes that Class I soils next to the golf course (now occupied by a Filbert orchard) east of Boones Ferry Road would make excellent high-end home sites, the Council found the argument that a need for high-end housing could only be met on Class I soils associated with a golf course unpersuasive, and was unwilling to jeopardize its broader planning objectives to include this land. The adopted UGB includes *only* an acre of Class I soils, located 100 feet eastward from an emergency access road required to connect an approved residential development within the Woodburn UGB to Boones Ferry Road, a planned urban arterial street.

As explained further in Part III of this report, the Class II soils area located east of Boones Ferry Road will meet an identified need for low density residential housing. This land is needed for two additional reasons: (1) to meet specific higher-end housing needs that Woodburn can *only* meet on land next to the golf course; *and* (2) to maximize efficiency of land use by providing urban transportation access, gravity flow sanitary and storm sewers, and a looped water system necessary to serve higher priority Class III soils to the west. (See Public Facilities Plan, Appendix B.)

As noted above and shown on attached soil maps, Woodburn is surrounded predominantly by Class II agricultural soils. However, beyond the surrounding Class II soils, there are two large concentrations of Class III soils located within the eight study areas. These areas of Class III soils can only be developed by extending services and arterial streets through areas with Class II soils. ORS 197.298(3)(b) and (c) allow for the inclusion of lower priority Class II soils to achieve maximum efficiency of land use and where necessary to serve higher priority Class III soils.

- **Study Area 2** (North) has a concentration of Class III soils containing approximately 34 acres. The Class III soils are found on the Fessler property, located between Interstate 5 and Boones Ferry Road, south of Crosby Road and immediately north of the 2002 UGB. In order to develop the Class III soils on the Fessler property for needed residential and public uses, Boones Ferry and Crosby Roads must be improved to arterial and service collector street standards, and urban services (sanitary sewer, water and storm drainage) must be extended through intervening Class II soils. (See Public Facilities Plan, Appendix B.)
- **Study Area 7** (Southwest) has by far the largest Class III soil area, which includes approximately 185 acres located generally south of Parr Road and east of Interstate 5. Class II soils separate this Class III area from the existing UGB. Most of this Class II and III soils area has been designated for industrial use within the SWIR, although a portion to the east is designated for residential use. In order to develop

and provide access to I-5 for Class III soils within SA-7, Butteville Road must be improved to arterial standards to connect with the planned South Arterial. For this to happen, land in SA-8 between the UGB and Butteville Road must develop and help pay for the arterial street extension. Evergreen Drive also must be improved to arterial street standards on Class II soils to connect with Parr Road and the South Arterial. Urban sewer, water and storm drainage services must be constructed through intervening areas with Class II soils to allow development of lower priority Class III areas. (See Public Facilities Plan, Appendix B.)

As noted earlier, Woodburn has no large concentrations of Class III soils immediately adjacent to the existing (2002) UGB. In Study Areas 2, 7 and 8, maximum efficiency of land use requires that intervening Class II soils be efficiently developed, in order to allow full development of more distant areas with Class III soil concentrations.

In the other UGB Study Areas, there are no large concentrations of buildable Class III soils. Unlike the land included within the 2005 Woodburn UGB, there is no need to develop Class I or II lands in the other UGB Study Areas to achieve urban efficiency objectives or to provide services to areas with predominantly Class III agricultural soils. Moreover, in the other UGB Study Areas, no identified urban land use need would be served by extending urban services through Class I and II soils to reach relatively small, linear configurations of unbuildable Class IV-VI soils.

Step 6: Coordinate with Marion County

Woodburn and Marion County have a long and fruitful history of intergovernmental coordination. Despite disagreements regarding certain aspects of the Marion County Growth Management Framework Plan in 2002-03, City and County staff have worked together productively to:

- Incorporate applicable growth management policies into the adopted 2005 Woodburn Comprehensive Plan;
- Adopt a coordinated Year 2020 population projection of 34,919;
- Update the Woodburn Transportation Systems Plan (TSP); and
- Develop staff recommendations regarding amendments to the Growth Management Agreement between the two jurisdictions.

As stated in the Marion County's March 21, 2005 comment letter to the City, County staff supports the 2005 comprehensive plan and development code amendment package as recommended by the Planning Commission. In particular, Planner Les Sasaki stated County support for:

- Inclusion of County Framework Plan goals and policies into the Woodburn Comprehensive Plan;
- Nodal development provisions;
- The Interchange Management Overlay (IMA) overlay district;
- Riparian and wetland conservation (safe harbor) provisions;
- Measures to increase land use efficiency (smaller lot sizes and allowance of a broader range of housing types);

-
- Incorporation of the 2001 Economic Opportunities Analysis (EOA) and Economic Development Strategy (EDS) into the 2005 Woodburn Comprehensive Plan;
 - Southwest Industrial Reserve (SWIR) master planning requirements and retention of large parcels of land within the Southwest Industrial Reserve;
 - Downtown redevelopment provisions;
 - Provisions to retain agricultural land in farm use until needed for urban development;

Mr. Sasaki included a number of comments related to industrial and residential land supply, which are addressed in Part I of this report.

Step 7: Complete the Periodic Review Process

As requested by the Department of Land Conservation and Development (DLCD) in a March 16, 2005 letter from Willamette Valley Regional Representative Geoff Crook, the City made extensive updates to the Public Facilities Plan. In particular, the PFP now identifies short-term (2005-10) projects, as well as detailed tables and maps showing how sanitary sewer, water, storm drainage and transportation facilities will be provided to UGB expansion areas.

Appendix 1 to this report includes a detailed description of the Periodic Review work program and explains how the City has completed each of the required tasks – in most cases, more than once. In summary, Woodburn has completed:

- An initial and revised Buildable Lands Inventory and Land Needs Assessment (Task 1.A)
- Initial and revised growth management policies and land use regulations (Task 1.B)
- An Economic Opportunities Analysis, including commercial and industrial land inventories and site suitability analyses (Task 2)
- An update of the Public Facilities Plan (Task 3.A)
- Revisions to the Transportation Systems Plan (Task 3.B)
- An inventory and protection program for wetlands and riparian corridors (Task 7)
- An update comprehensive plan and land use regulations (Task 8)
- A successful coordination with Marion County and affected state and local governments (Task 9)
- An extensive citizen involvement program (Task 10)

PART I: LAND NEEDS ASSESSMENT (GOAL 14: LAND NEEDS)

The **Land Need** section of Goal 14 reads as follows:

"Establishment and change of urban growth boundaries shall be based on the following:

(1) Demonstrated need to accommodate long range urban population, consistent with a 20-year population forecast coordinated with affected local governments; and

(2) Demonstrated need for housing, employment opportunities, livability or uses such as public facilities, streets and roads, schools, parks or open space, or any combination of the need categories in this subsection (2).

In determining need, local government may specify characteristics, such as parcel size, topography or proximity, necessary for land to be suitable for an identified need."

The land needs assessment compares projected land needs through the year 2020 with the supply of land within the existing (2002) Woodburn UGB. Residential and public land needs are directly related to projected population growth. In contrast, employment land needs are based on the siting requirements of targeted employers.

Needs for housing, employment opportunities, livability and public/semi-public uses over the approximately 20-year planning period are summarized in this document under sections titled "Employment Land Needs," "Residential Land Needs" and "Public and Semi-Public Use Land Needs." Together with examining measures to increase the intensity of land use within the existing (2002) UGB (see Part II), these sections provide the basis for determining the amount and type of land that are needed outside the existing UGB.

Population and Employment Projections

Year 2020 Population Projection

The proposed Plan and UGB amendment package is based on a Year 2020 population projection of **34,919** with an average annual growth rate (AAGR) of 2.8%. Although opposed by 1000 Friends of Oregon (1000 Friends) and Friends and Neighbors of Woodburn (FAN), the Marion County Board of Commissioners adopted this projection as part of the Marion County Comprehensive Plan in November of 2004. This population projection represents an increase of 14,819 persons from Woodburn's 2000 U.S. Census population of 20,100 and an increase of 14,059 persons from Woodburn's 2002 PSU population estimate.¹² This coordinated and acknowledged population projection serves as the basis for projecting residential and public/semi-public land needs through the Year 2020.

¹² Portland State University Center for Population Research estimate.

ECONorthwest's April 29, 2002 memorandum entitled "Woodburn Population and Employment Projections, 2002-2020" justifies a 34,919 year 2020 population projection and explains why the previous projection of 26,290 – with an AAGR of 2.13 – was unreasonably low.¹³ In simple terms, Woodburn's population grew at an average annual rate of 3.3% from 1970-2000. Woodburn's location along Interstate 5 between Salem and Portland will contribute to sustained population growth during the planning period. See "Marion County Comprehensive Plan Amendments to Update the Coordinated 2020 Population Projections for the City of Woodburn and for Marion County." (Winterbrook Planning, November 10, 2004)

Year 2020 Employment Projection

ECONorthwest also projected employment growth during the planning period. The 2002 ECONorthwest memorandum estimated that in 2000, Woodburn had 10,388 employees (including employees that are "covered" by employment insurance laws and those who are not). This memorandum provided employment projections ranging from 16,370 to 18,762 – or annual growth rates ranging from 2.3 – 3.0%. The Council chose the higher projection for several reasons:

- First, Woodburn currently has a relatively low employment-to-population ratio, when compared with the County as a whole. Using covered employment figures, Woodburn has 5% of total county employees – but 7% of the County population. Woodburn has only 1 job for every 2.4 residents, compared with 1 job for every 1.8 residents in Marion County. Thus, there is a substantial imbalance between jobs and housing in Woodburn – a situation that the City addresses in the Woodburn Economic Development Strategy (EDS). If Woodburn's economic development strategy is successful and Woodburn is able to attract 8,762 new jobs to go along with planned population growth, then Woodburn will have a more reasonable ratio of 1 job for every 1.9 people.
- Second, Woodburn's projected annual employment growth rate is reasonable given the City's I-5 location and the availability of flat, vacant and serviceable land within the SWIR that will be master planned before annexation and urban development can occur. As noted in Winterbrook's February 16, 2005 memorandum, Woodburn's comparative advantages are similar to those of Wilsonville, which attracted substantial economic growth over the last 25 years and has more jobs than residents.¹⁴

¹³ This ECONorthwest memorandum served as the basis for agreement among Woodburn, Marion County, the Department of Land Conservation and Development (DLCD) and the Oregon Department of Transportation (ODOT) to use this projection for planning purposes in April of 2002. See April 2002 letter from Les Sasaki, Marion County Senior Planner.

¹⁴ In 1980, Wilsonville had a population of 2,920 and relatively few jobs. Wilsonville was surrounded by agricultural land and, before the construction of I-5, relied heavily on the agricultural economy. As of September 1999, Wilsonville had over 800 acres of developed industrial land and 200 acres of vacant industrial land. By 2003, according to the most recent PSU population estimate, Wilsonville had 15,880 residents – more than a five-fold increase from 1980. Moreover, according to Department of Revenue data, Wilsonville had 18,118 covered employees. Thus, Wilsonville had 1.14 employees for every City

The record also includes a *Daily Journal of Commerce* article regarding the City of Ridgefield, Washington, another I-5 community located some 20 miles north of the Portland UGB. After identifying several new industrial and commercial development projects totaling 335,000 square feet, the 2005 article notes that: "Ridgefield is well on its way to become a significant economic engine for the region. During the next 20 years, Ridgefield is set to grow from a population of 2,900 to more than 25,000, with an employment base of more than 16,000 new jobs." Thus, the Council concludes that the initial size of a community has little to do with potential employment growth, especially when the community has large tracts of suitable and serviceable industrial land, near the Portland region, with direct I-5 access.

Objectors to Woodburn's economic development strategy cite the City of Keizer's recent decision to redesignate industrial land for commercial uses. However, in the Council's view, the City of Keizer's recent decision to convert industrial land near the freeway to commercial use accentuates, rather than diminishes, Woodburn's comparative advantage.

Contrary to views expressed by 1000 Friends and FAN, Woodburn's projected annual population growth rate of 2.8% AAGR is proportionate to its projected annual employment growth rate at 3.0% AAGR.

Third, Woodburn Transportation Systems Plan (TSP) and Interchange Management Area Overlay District are based on the high employment projection of 18,762. If Woodburn were to attract fewer than the projected number of jobs, then impacts on the interchange would be reduced and interchange improvements would have a longer life. On the other hand, if Woodburn were to under-estimate job growth near the interchange, and provide for lesser interchange improvements, then Woodburn would face a potential moratorium on higher employment growth under the City's IMA (Interchange Management Area) Overlay District.

In its various objections, 1000 Friends repeatedly argues that Woodburn has more land than "needed" to accommodate the high employment projection – based on the employee-per-acre method of calculating land needs preferred by that organization. However, as noted below in the employment needs discussion, Woodburn has projected employment land needs based on the siting needs of targeted basic employers – Woodburn's projections are not based directly on employee-per-acre or floor area ratios.¹⁵ Rather, as required by ORS

resident. From the above comparison, it is clear that the size of a community has little to do with its employment or population growth potential. Woodburn's EOA instructs the City to capitalize on its I-5 location and the availability of large tracts flat, serviceable industrial land. Unlike Wilsonville in the 1980s and 90s, Woodburn has taken aggressive steps to preserve capacity at its only interchange. Woodburn also adopted strong policies to reserve its industrial land supply exclusively for basic employment uses. Thus, if ECONorthwest and Winterbrook have over-estimated potential basic employment opportunities, unused industrial land will be retained in large parcels exclusively for agricultural use.

¹⁵ In responding to objections raised by FAN and 1000 Friends, the City Council relied on the February 16, 2005 Winterbrook Planning Memorandum to Planning Director Jim Mulder.

197.712 and the Goal 9 Rule, the Council has projected land needs based on the site characteristics that are required by targeted employers. Thus, reducing the employment projection to the mid or even low end of the range would not change the characteristics of the sites that Woodburn requires to be competitive in attracting family-wage jobs.

As documented in Technical Report 1, Buildable Lands Inventory (revised July 2005), the 2002 Woodburn UGB included 126 acres of vacant, partially vacant and potentially redevelopable industrial land – distributed among 36 parcels, with an average parcel size of 3.5 acres. Although this land is a valuable component of the City's industrial land inventory, it is concentrated along Highway 99E and the Union Pacific railroad tracks west of this congested highway, and for the most part fails to meet the specific siting requirements of industries targeted in Appendix B of the Woodburn EOA.

In response to objections raised by 1000 Friends and FAN, City staff contacted owners of "partially vacant" and "redevelopable" properties identified in Winterbrook's 2003 BLI. In most cases, the owners of industrial firms stated that partially vacant land on their property was being held for future expansion, and was *not* available for purchase to meet the needs of new targeted employers. In other cases, owners stated that "redevelopable" industrial land (i.e., land with an improvement to land value ratio of less than 1) was actually being used for storage of vehicles, equipment or materials. As a result of staff's research, the Council has determined that Winterbrook's original estimate of 126 buildable industrial acres was not realistic. In actuality, as shown Technical Report 1, Buildable Lands Inventory (revised 2005), there are only 47 buildable acres on 23 separate tax lots available to site new targeted employment in Woodburn existing (2002) UGB.

Simply put, land served by Highway 99E does *not* have direct access to I-5 and lacks the range of parcel sizes and locational characteristics necessary to attract targeted industries. On the other hand, existing partially vacant and redevelopable parcels along Highway 99E and the railroad tracks provide *expansion* opportunities for existing Woodburn firms.

Employment Land Needs

Goal 14, Land Need factor (2), recognizes that changes to a UGB may be based on demonstrated need for employment opportunities.

Commercial Land Needs

A commonly-accepted method of projecting commercial land need (and one that has been acknowledged in many Oregon plans) is to determine the existing ratio of developed commercial acres to population, and multiply this ratio by projected population growth. Using this method, Woodburn would need 310 net buildable commercial acres to meet 2020 commercial land needs. Since Woodburn has 108 net buildable commercial acres within the existing UGB,¹⁶ this would result in a need for an additional 202 net buildable commercial acres.

¹⁶ The Council worked closely with City staff to identify the portions of commercial sites within the existing UGB that are not being used for buildings or parking, and accounted for these areas as vacant.

The Council did not use this method, because the Council has intentionally under-allocated commercial land to encourage redevelopment along Highway 214, Highway 99E and in Downtown Woodburn. As explained further in Part II of this Report, as a measure to increase land use efficiency, the Council assumed that most future commercial and government employment will occur on existing commercial lands through intensification and redevelopment. In addition, the need for highway commercial uses can be met to a limited extent within the Southeast Commercial Exceptions Area. That Highway 99E area has a range of low-intensity development uses. The City has assumed that strip commercial properties along Highway 99E and Highway 214 will redevelop over time, thus reducing the need to designate new commercial areas on resource land.

To meet future commercial land needs, including the need for nodal neighborhood commercial centers, the Council has added to the existing UGB only 22 net buildable acres of Commercial land (about 6% of the existing Commercial land base). These 22 net buildable acres include the following:

- 11 net buildable general commercial acres within existing commercial exception areas adjacent to the existing UGB;
- 9 net buildable neighborhood commercial acres in the Parr Road Nodal Development area; and
- 2 net buildable neighborhood commercial acres along Boones Ferry to the north of the existing UGB.

The Council notes that providing neighborhood commercial centers near higher density nodal residential development also meets a community livability need. Such centers are accessible by pedestrians and bicyclists, and are required by the WDO to have public plazas that increase opportunities for relaxation and community events. Therefore, the Council concludes that neighborhood community centers provide increased "livability" opportunities by encouraging healthful exercise and increased human interaction.

Industrial Land Needs

ECONorthwest prepared the *Woodburn Economic Opportunities Analysis* (EOA) in May 2001. The EOA considered Woodburn's comparative advantages and identified the types of employment and industries that Woodburn can reasonably attract during the planning period. To address ORS 197.712 (Economic Development) and Goal 9 (Economy of the State) requirements, ECONorthwest also determined the types of sites that will be needed to attract targeted industries in a subsequent document entitled "Site Requirements for Woodburn Target Industries" (October 2003). These documents recognize the City's locational advantages and outline a strategy for the City to target specific industries that Woodburn has a reasonable chance of bringing to the City. Both documents conclude Woodburn will need additional land with specific size and access characteristics to achieve the City's economic development goals. These two ECONorthwest documents serve as the basis for determining Woodburn's employment land needs by site size through the Year 2020.

The employment land needs analysis in ECONorthwest's "Site Requirements for Woodburn Target Industries" (October 2003) concluded that about 370 acres would need to be

developed for basic employment uses to accommodate a mid-range need of 7,140 new employees between 2000 and 2020, based on employee-per-acre ratios.¹⁷ However, to attract targeted industries Woodburn must provide choice among and an adequate inventory of suitable sites. Under the site suitability method, it is possible that some sites may not fully develop during the planning period, either because a portion of the site will be held for future development or because a reserved site will not be selected by a targeted industry. As noted below, the proposed Plan includes measures to ensure that designated industrial parcels remain in agricultural use until a targeted employer needs them.¹⁸ Plan measures also ensure that such parcels cannot be re-designated for commercial use.

Woodburn's employment land needs are designed to meet ORS 197.712 and the Goal 9 Rule (OAR Chapter 660, Division 009) requirements that cities "identify the types of sites that are likely to be needed by industrial and commercial uses which might expand or locate in the planning area." To be clear, industrial site needs are not based on floor-area ratios or employee per acre ratios. Table 1 includes a select group of sites that have a reasonable likelihood of meeting the needs of targeted employers. This group of sites totals slightly less than 500 acres.

Table 1. Summary of estimated industrial site needs by size, Woodburn 2000-2020

Site Size (acres)	Number of Sites	Average Site Size	Estimated Acres
100 or more	1	125.0	125.0
50-100	1	70.0	70.0
25-50	3	35.0	105.0
10-25	5	15.0	75.0
5-10	7	8.0	56.0
2-5	10	4.0	40.0
Less than 2	15	1.0	15.0
Total/Average	42	11.6	486.0

Source: ECONorthwest

Refined Target Industry Site Suitability Analysis

When Metro conducted its industrial siting analysis in 2004, it applied three basic criteria to identify suitable blocks of industrial land:

¹⁷ As noted above in the section titled "Year 2020 Employment Projection", Woodburn assumed ECONorthwest's high employment projection. The Council believes that the site needs indicated in Table 1 will be sufficient to accommodate the higher employment projection as well.

¹⁸ The land will remain in EFU zoning until annexed to the City. A master plan is required prior to annexation, that will ensure retention of large parcels called for in the EOA. At Marion County's request, the Council has adopted a plan policy requiring industrial users to sign a covenant agreeing not to complain about agricultural operations in the area.

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- access to transportation facilities (within two miles of a major interchange);
 - proximity to other industrial uses (within one mile); and
 - less than ten percent slope.

In 2003, Winterbrook applied similar locational need criteria to identify sites for targeted employers. Suitable industrial sites must:

- Be comprised of large blocks of land contiguous to or within the existing UGB;
- Have direct access to the I-5 / Highway 214 interchange via an existing or planned arterial street;
- Be located to avoid truck traffic through existing or planned urban residential neighborhoods;
- Minimize potential conflicts with existing or planned residential areas by minimizing common boundaries;
- Be located to take advantage of existing or proposed arterial streets that direct industrial traffic to Highway 214 west (rather than east) of the interchange to access I-5;
- Be located within a two mile radius of the I-5 interchange;
- Be adjacent to existing industrial development;
- Have five or less percent slope;
- Meet size requirements outlined by ECONorthwest (October 2003 memorandum entitled "Site Requirements of Targeted Industries" and summarized on Table 1 of this Report);
- Be serviceable within the next 0-15 years with sanitary sewer, water and storm drainage facilities; and
- Avoid Class I agricultural soils; then include first Class III soils and second Class II soils, if necessary to serve otherwise suitable sites with Class III soils.

As a result of this site suitability analysis, the City allocated land for targeted employers in Study Areas 7 and 8, within the Southwest Industrial Reserve (SWIR). The SWIR is comprised of large, flat sites that can be provided readily with urban services and which have direct access to the west side of Interstate 5 via the Evergreen Arterial Extension, the South Arterial, Butteville Road and Highway 214. Evergreen Road and the Parr Road Neighborhood Commercial area serve as buffers between the SWIR and planned residential development to the east.

Employment Land Needs Conclusions

Table 2 below shows a comparison between the supply of industrial sites within the existing UGB and the 2020 basic employment site needs determined by the EOA and ECONorthwest's Site Requirements Analysis.¹⁹ Woodburn has a shortage of sites in all

¹⁹ Buildable Lands Inventory drafts through 2004 indicated industrial sites totaling 127 net buildable acres inside Woodburn's existing UGB. These sites included all partially developed and potentially redevelopable sites identified by Winterbrook when the initial draft of the BLI was created in 2002. Staff contacted owners of identified partially vacant and potentially redevelopable sites in 2005, and determined that many were being held for expansion of existing uses, or actually being used by the existing owner for storage necessary to the existing use. These sites were determined to be unsuitable to meet the siting needs for new industrial firms. Thus, the supply of potential industrial sites within the existing UGB dropped to 23, totaling 47 acres.

categories over 2 acres in size. There is a severe shortage of medium to large industrial sites available to meet the identified site requirements. Overall, Woodburn has a deficit of 20 industrial sites over 2 acres in size, totaling about 435 acres.

Table 2: Target Industry 2020 Site Needs Compared with 2002 UGB Supply

Lot Size (Acres)	2020 Needed	2002 UGB Supply*	UGB Surplus (Deficit)
Under 2	15	16	1
Total Acres	15	8	(7)
2 to 5	10	5	(5)
Total Acres	40	18	(22)
6 to 10	7	1	(6)
Total Acres	56	8	(48)
11 to 25	5	1	(4)
Total Acres	75	11	(64)
26 to 50	3	0	(3)
Total Acres	105	0	(105)
51 to 100	1	0	(1)
Total Acres	70	0	(70)
100 +	1	0	(1)
Total Acres	125	0	(125)
Total Sites	42	23	(19)
Total Acres	486	45	(441)

Source: Winterbrook Planning

*Minor discrepancies in acreage due to rounding.

As shown in Table 3 below, the amended 2005 UGB has a deficit of 1 site in the 10-25 acre category and 1 site in the 2-5 acre category; counter-balanced by a surplus of 1 site in the 5-10 acre category²⁰, and a surplus of 1 site in the under 2 acre category. Rather than expand the UGB further to add parcels in these ranges, the Council felt it prudent to rely on three possibilities for meeting these needs:

- First, there is a partially vacant parcel of 19 acres within the 2002 UGB that is being held for future expansion. If the existing industrial owner of this site changes expansion plans, this site may become available.
- Second, if large sites develop at the lower end of their potential site ranges (e.g. 50 instead of 70 acres), additional sites in the 10-25 acre range may become available in the SWIR industrial park areas.
- Third, the City re-designated a site in the 5-10 acre category inside the existing UGB from Open Space to Industrial, which can be used to meet the need for sites of smaller sizes.

²⁰ An additional site in the 5-10 acre category was created in 2005 inside the existing UGB through re-designation of land from Open Space to Industrial.

Table 3: Target Industry 2020 Site Needs and 2005 UGB Supply

Site Size (Acres)	2020 Needed	2005 UGB Supply	UGB Surplus (Deficit)
Under 2	15	16	1
Total Acres	15	8	(7)
2 to 5	10	9	(1)
Total Acres	40	30	(10)
5 to 10	7	8	1
Total Acres	56	57	1
10 to 25	5	4	(1)
Total Acres	75	56	(19)
26 to 50	3	3	0
Total Acres	105	103	(2)
51 to 100	1	1	0
Total Acres	70	65	(5)
100 +	1	1	0
Total Acres	125	96	(29)
Total Sites	42	42	0
Total Acres	486	407	(71)

Source: Winterbrook Planning and ECONorthwest

“Base Case” Residential Land Needs

Goal 14, Land Need factor (2), provides that changes to a UGB may be based on demonstrated need for housing.

In Technical Report 2 – Residential Land Needs Analysis (RLNA), Winterbrook determined Woodburn’s residential land needs based on the requirements of ORS 197.296 and Statewide Planning Goals 10 (Housing) and 14 (Urbanization). This section considers two “base case” scenarios from which to determine the housing and buildable land area needs for residential uses for the 18-year planning period, from 2002 to 2020. Part II of this Report considers the results of the housing needs analysis and identifies land use efficiency measures that enable the City to provide affordable housing opportunities and reduce its need for buildable residential land.

Alternative 1: Residential Land Needs Based on Actual Housing Mix and Density

The first “Base Case Scenario” described below is based on “actual housing mix and densities” observed from 1988-2002 (Technical Report 2, Woodburn Residential Land Needs Analysis, Table 8), as prescribed by ORS 197.296(4)(a). Implementation of this base case scenario would not require additional plan policy or code text amendments.²¹ Implementation of this “actual development” scenario would, however, require

²¹ Currently, Woodburn has two residential plan designations: Low Density Residential and High Density Residential. Three zones implement these designations: Residential Single Family, Retirement Community Single Family Residential, and Medium Density Residential.

comprehensive plan map, urban growth boundary and (eventually) zoning map amendments.

For the base case scenario based on actual development, Winterbrook:

1. Determined the actual mix and density of dwelling unit (DU) types in new developments (from 1988 to 2002);
2. Used ECONorthwest's projected, and Marion County's (then) interim planning, population projection of 34,919;
3. Applied the 2000 US Census ratio of institutional population to projected population increase and subtracted these 337 "institutional" residents from the population growth for purposes of dwelling unit need;
4. Assumed a projected average household size figure of 2.9;²² and
5. Applied an average occupancy rate of 95% (or a vacancy rate of 5%²³) to all housing types.

Winterbrook determined the number of needed dwelling units (DU) by multiplying the actual mix by the population increase, dividing by household size, then dividing by occupancy rate. Winterbrook determined needed acres by dividing the number of dwelling units by actual density. The above factors were then applied to create Table 3A.

Table 4 shows a need for 4,968 dwelling units and about 680 net buildable residential acres, using the above methods. Table 4 shows the housing mix and density experienced in Woodburn over the last 14 years and one possible zoning allocation that can achieve 7.25 dwelling units per acre. Table 4 does not include need for Public and Semi-Public uses, which is discussed in the following Public and Semi-Public Use Land Needs section. Nor does this base case scenario consider inefficiencies that result from converting highly-parcelized land within built and committed exception areas to urban residential uses.

Finally, based on testimony received from Renaissance Homes, the Council finds that there is a "special need" for higher end housing adjacent to the OGC Golf Course. Renaissance Homes testified that they have been able to meet a specific market niche for higher end housing in Woodburn *safely* because of the golf course views and open space available in the Tukwila Planned Unit Development. The Council notes that higher paid executives in existing and future Woodburn firms also are more likely to reside in Woodburn (rather than

²² The actual household size has risen sharply in Woodburn from 2.7 in 1990 to 3.1 in 2000. This increase can be attributed largely to in-migration of families with small children. Winterbrook projected a return in household size over the next 20 years (reflecting national trends and cultural shifts) to 2.9 persons per household. There is a direct relationship between the success of Woodburn's Economic Development Strategy and household size: as household incomes and educational levels increase, household size typically decreases.

²³ The 2000 US Census shows overall vacancy rates in Woodburn of 8%. This is a substantial increase from 1990's overall vacancy rate of 2.7%. As with household size, Winterbrook projected a *midrange* vacancy rate of 5%.

in Portland, Salem or rural Marion County) if such higher-end, higher-amenity homes were available within the Woodburn UGB.

Table 4: Residential Land Need Based on Actual Development

Type	Percent	Units	Net Density	Needed Net Buildable Acres
Detached Single Family Residential	43%	2,136	6.05	353.1
Multiple Family Residential	31%	1,540	16.31	94.4
Duplex	1%	49.68	12.56	4.0
Manufactured Homes	24%	1,192	5.23	228.0
Totals	100%	4,968	7.25	679.5

Source: City of Woodburn; Residential Land Needs Analysis, Winterbrook Planning

As explained in the Residential Land Needs Assessment (RLNA), Woodburn has two major population cohorts: a rapidly growing young population that will continue to grow and mature over the next 20 years, and an elder population that should remain fairly stable. Woodburn is doing a reasonable job of providing affordable housing, but can take steps to provide a greater variety of housing types at higher densities. Part of the affordable housing "problem" is that the new, young population lacks the financial resources for home ownership. This problem is considered in the Oregon Housing and Community Services (OHCS) alternative analyses below.

Base Case 2: Application of the OHCS Residential Land Needs Model

The OHCS Housing Needs Model was applied in 2003 as a means of checking the Housing Needs Analysis prepared by Winterbrook Planning. For an alternative base case analysis, Winterbrook applied The Housing Land Needs Model developed by OHCS without considering potential impacts from higher incomes resulting from a successful economic development strategy.

Winterbrook ran the model using the coordinated population projection of 34,919, a Year 2020 planning period, an average household size of 2.9, and approximately 200 other assumptions related to housing type, rental status, and price/rent levels (see RLNA, Attachment A). Due to Woodburn demographics and Hispanic preferences for homeownership, Winterbrook assumed a high demand for affordable homeownership opportunities, which translates into a need for small-lot single-family and townhouse (single-family attached) development.

The Housing Needs Model produced the results shown on Table 4A. Approximately 385 net acres are needed for Low Density Single Family (LDSF), 116 for Medium Density Single Family (MDSF), 94 for High Density Single Family (HDSF), 15 for Manufactured Dwelling Park (MDP), 27 for Low Density Multi-Family (LDMF), 57 for Medium Density Multi-Family (MDMF), 14 for High Density Multi-Family (HDMF), and 6 for Mixed-Use (MU). The total acreage needed to serve the 2020 dwelling unit growth of approximately 5,000 units requires about 714 net acres (about 34 acres more than was projected using the "actual

housing mix and densities" method). This represents the total amount of buildable residential land needed to accommodate the projected 14,059 population increase over approximately the next 18 years.

Table 4A: 2020 Needed Net Buildable Acres for Housing Based on OHCS Model

	LDSF	MDSF	HDSF	MDP	LDMP	MDMP	HDMP	MU	Total
Acres Needed	385.1	115.8	94.0	15.4	27.4	56.7	14.0	5.5	713.7

Source: Residential Land Needs Analysis, The Housing/Land Needs Model; Winterbrook Planning

The 2005 Housing Needs Model Run

In September of 2005, Winterbrook worked with Richard Bjelland of OHCS to run The Housing Needs Model a second time. The purpose of this second run was to:

1. Incorporate data from ECONorthwest regarding projected increases in household income resulting from successful implementation of Woodburn's Economic Development Strategy;
2. Consider the effects of higher density nodal zoning districts; and
3. Test the housing needs projection developed by Winterbrook and recommended to the City Council by the Woodburn Planning Commission.

The 2005 run of The Housing Needs Model produced the results shown on Table 3C. In the 2005 Model run, approximately 330 net acres are needed for Single Family Residential (RS), 62 for Medium Density Residential (RM), 208 for Nodal Single Family (RSN), and 68 for Nodal Medium Density (RMN). Thus, Housing Needs Model projects that approximately 667 net buildable acres will be needed to serve projected dwelling unit need through the Year 2020. This represents the total buildable residential acreage needed to accommodate the projected 14,059 population increase from 2002-2020 assuming that needed housing occurs at 80% efficiency.²⁴

The 2005 model run produced a land need estimate that is approximately:

- 12 net buildable acres fewer than indicated using the "actual housing mix and densities" method that must be considered under ORS 197.296;
- 47 net buildable acres fewer than resulted from the 2003 Housing Needs Model run; and
- 33 net buildable acres more than projected in the Winterbrook Housing Needs Analysis.

²⁴ Note that none of the land need projections above consider the effect of lower densities expected to occur in highly-parcelized Exceptions Areas.

Thus, The Housing Needs Model continues to identify for slightly more land than the 2003 Winterbrook Housing Needs Analysis. As noted by Housing Needs Analyst and City Councilor Bjelland during Council deliberations, the differences between the two methods are within acceptable margins of error. Both analyses support the need more affordable multiple-family housing and single-family residential development, as provided by Woodburn's new "nodal" overlay zones. However, the Council has relied on the Winterbrook housing needs analysis because it provides a more conservative 2020 residential land needs estimate (requiring less agricultural land) and because it served as the basis for the Woodburn Planning Commission's recommendations and reviews by Marion County staff and DLCD.

Table 4B: 2020 Needed Net Buildable Acres for Housing Based on 2005 Application of OHCS Housing Needs Model

	RS	RSR	RM	RSN	RMN	Total
Acres Needed	329.6	0.0	61.6	207.8	68.2	667.3

Source: Residential Land Needs Analysis, The Housing/Land Needs Model; Winterbrook Planning

Specific Need for Higher-End Single-Family Detached Housing

The Council has also identified a need for higher-end single-family detached housing to meet future housing needs in Woodburn. Therefore, Winterbrook queried the Housing Needs Model to determine the number of higher-end, detached single-family units needed through the year 2020.

The model determined a need for 1,074 higher-end housing units to meet the specific need for higher-income families in the Housing Needs Model's highest price range (\$212,500+ in 1999 dollars). This represents approximately 19% of the total number of new housing units that are needed to meet Year 2020 housing needs in Woodburn. It is anticipated that most of this need will be met on Class II soils near the OGC Golf Course in Study Area 2 (North). (The UGB expansion area in Study Area 2 can accommodate approximately 825 new single-family residential dwellings at 5.5 units per net buildable acre.)

Base Case Housing Need Conclusions

A major part of Woodburn's Economic Development Strategy (EDS) is to take advantage of its growing workforce by creating opportunities for jobs to locate in the area. If Woodburn is successful in attracting these jobs, the buying power of residents will improve in relation to housing costs. Thus, while Woodburn can benefit from a wider range of housing types, and should allow the opportunity for multi-family and small lot single-family residences to develop, it is important to continue to supply single-family home ownership opportunities as well. The City also has a special need for higher-end homes near the OGC Golf Course to provide housing for future executives in firms that choose to locate in Woodburn.

Without the adoption of land use efficiency measures, as discussed in Part II of this Report, Woodburn would require from 667 to 714 net buildable acres of residential land to meet its housing needs through the year 2020. As noted below, with efficiency measures, the City will need approximately 117-160 fewer net buildable acres. This range assumes relatively

large buildable parcels, and does not account for inefficiencies in land development that occur when built and committed exception areas are converted to urban residential uses.

Public and Semi-Public Land Needs

Goal 14, Land Need factor (2) recognizes that changes to a UGB may be based on demonstrated need for "livability or uses such as public facilities, streets and roads, schools, parks or open space."

Public and semi-public facilities such as schools, hospitals, churches, government buildings, and parks will expand as population increases. Such uses are necessary to support planned population growth and (in the case of parks, open space and schools) increase the livability of residential neighborhoods. In Woodburn, such uses typically locate on land designated for residential use.

Public and semi-public land needs are shown in Table 5 below. Park standards described in the 1999 Woodburn Parks and Recreation Comprehensive Plan Update were used to determine the need for buildable and unbuildable (natural area parks) land to accommodate parks and schools.

To project land needs for public and semi-public lands, the City categorized land uses by type: schools, parks, institutional, religious, natural areas, and government. The City approached each type slightly differently:

- **Schools** – The City used the ratio of developed school land to population described in the 1999 *Woodburn Parks and Recreation Comprehensive Plan Update* – about 5 acres per 1,000 residents -- and extended that ratio to the projected Year 2020 Woodburn population to determine land needed for schools. In 2004, the Woodburn School District reviewed Winterbrook's projection and determined that Woodburn needed approximately 48 additional acres beyond Winterbrook's original projection to meet school needs through 2020.²⁵ Woodburn currently has about 115 developed acres of land for schools, and needs approximately 223 total acres by 2020. This means there is a need for 108 vacant buildable acres to accommodate a new high school, a new middle school and two new elementary schools.
- **Parks** – The City used the 1999 *Woodburn Parks and Recreation Comprehensive Plan Update* to project park needs through 2020. The 1999 Update recommends using a ratio of 7 acres per 1000 population to project need for neighborhood and community parks. The ratio was applied to the projected 2020 population of 34,919, and then existing parkland was subtracted to determine needed park acreage. The Parks Plan indicates that some of Woodburn's park needs will be met on school lands. Therefore,

²⁵ August 30, 2004 letter from Woodburn School District. The District has a 20-year planning horizon. In order for the second new high school to be operational by 2024, the land will need to be purchased on or before 2020. This would allow sufficient time for land to be annexed to the City, a bond measure passed, and the high school designed and constructed.

the City assumed that 50% of all needed 2020 school lands would also serve to meet park needs, and that amount was added to the parks supply. Woodburn currently has about 87 acres of parks and recreational land in use (plus about 112 acres of 2020 school lands), and needs about 262 acres total to meet the recommended ratio. This means there is a need for about 63 additional acres of parklands by the year 2020.

- **Institutional** – Woodburn currently has 500 residents who live in “institutions”, according to the 2000 US Census, and has had no additional institutional development from 2000-2002. The City applied the existing ratio to a projected 2020 population of 34,919, projecting an institutional population growth of approximately 337 through 2020. The City applied a ratio of 30 residents/units per net acre (the maximum allowed under current zoning), which translated to an 11-acre need in this category.
- **Religious** – The City applied a ratio of 2 acres per 1,000 population growth for religious uses. The 2002-2020 population growth forecast of 14,059 translated to a need for approximately 28 acres for religious use.
- **Natural Areas** - The City put protected riparian corridors, locally significant wetlands and floodplains into this category. The 1999 Woodburn Parks and Recreation Comprehensive Plan Update did not project a need or contain a standard for natural areas. However, natural areas can provide trail systems and natural pathways for Woodburn residents. According to the 1999 Update, there were 1.22 acres of greenways, open space, and trails/pathways per 1000 population in Woodburn. Extending this ratio to the projected 2020 population projection of 34,919 would require 42.6 acres for greenways, open space, and trails/pathways. There are approximately 129 constrained (unbuildable) riparian, wetland and floodplain acres in Woodburn available to meet this generalized need. Therefore, no additional buildable land is required.
- **Government** – Projected government employment growth through 2020 is 252 employees. Using an employee/acre ratio similar to that for commercial employment yields a land need of slightly less than 13 acres. There are approximately 5 vacant publicly owned acres of land to help meet this need. The City assumed that the remainder of the government employment land need will be met through redevelopment of commercial areas and intensification of use of existing government-owned property. Therefore, no additional residential land is needed to accommodate government employment growth.

The supply of public and semi-public land in Woodburn’s 2002 UGB shown in Table 5 was determined in Technical Report 1, Buildable Lands Inventory.

Table 5: Year 2020, Public and Semi-Public Land Needs

Type	Supply	Need	Difference
Schools Net Acres	115	223	-108
Parks Acres	199	262	-63
Institutional Net Acres	0	11	-11
Religious Net Acres	0	28	-28
Natural Areas Acres*	129	42.6	86
Government Net Acres*	5	13	-8
Total Net Buildable Residential Deficit			-210

Source: Woodburn Parks and Recreation Comprehensive Plan Update; 2000 US Census; Winterbrook Planning

* These acreages are not counted toward total residential deficit.

Based on Woodburn’s plans, and actual ratios of population to land occupied by public and semi-public uses, Woodburn will need about 108 net buildable acres for schools, 63 acres for parks, 11 acres for institutional uses, and 28 acres for religious uses, through 2020. The City relied on redevelopment of existing commercial and public lands to meet government employment needs. Since parks, schools, institutional uses, churches, and similar public/semi-public uses typically require a location in a residential zoning district, such public and semi-public use needs add to the demand for vacant buildable residential land. In summary, Woodburn requires approximately 210 additional net buildable acres of Residential land to meet its 2020 public and semi-public use land needs.

Recap of Base Case Residential Land Needs without Efficiency Measures

Without land use efficiency measures (i.e., relying on existing plan designations and zoning), from 2002 to 2020 Woodburn will require approximately 680-714 net buildable acres of residential land for housing, and 210 net buildable acres for public and semi-public uses. The total amount of residential land needed for Woodburn during the planning period without land use efficiency measures would be 890-934 acres. Again, this need range does not account for land use inefficiencies that result when built and committed exception areas are converted to urban residential use – as required by Goal 14 and ORS 197.298. However, these inefficiencies are accounted for in Part II of this report.

Buildable Lands Inventory

In Technical Report 1, Buildable Lands Inventory (BLI), Winterbrook determined the buildable land area, on a parcel-by-parcel basis, within the 2002 Woodburn UGB. BLI information was also used by ODOT for modeling transportation impacts from three preliminary land use scenarios.²⁶

After completing a Residential Land Needs Analysis, reviewing transportation options, and conferring with Woodburn staff, Winterbrook amended Technical Report 1 to account for changes proposed in the "2005 Plan". The "2005 Plan" is the adopted Plan and UGB amendment package, to meet identified needs for residential, public, and employment lands. As discussed below, the 2005 Plan includes (1) amendments to the Woodburn UGB to increase land supply, and (2) measures to increase land efficiency and residential densities within both the existing UGB and the proposed UGB expansion area.

The BLI consists of a Year 2002 GIS database that describes the gross area and net buildable area of each tax lot within the UGB by comprehensive plan designation and existing zoning. Net buildable area is determined by subtracting topographical constraints and infrastructure requirements from the gross area of each tax lot.

The BLI and associated Buildable Lands Map show: (a) how much vacant, infill, or potentially redevelopable land is available to meet future residential, public/semi-public, commercial, and industrial land needs; (b) where these parcels are; and (c) the size and constraints of each parcel.²⁷

Buildable Lands Inventory Overview

Table 6 (Buildable Lands Summary) provides the net buildable area, in acres, of land in each comprehensive plan designation inside Woodburn's existing UGB as of 2002. Table 7 (Lots by Size) provides the buildable area in parcels of various sizes by plan designation. Tables 5 and 6 correspond to Tables A and B in Technical Report 1 (Buildable Lands Inventory) and do not include proposed UGB expansion areas.

²⁶ To ensure that relationships between transportation and land use were considered early in the process, ODOT used data from the BLI to inform Periodic Review Task 2 (Coordination with ODOT), and by association Statewide Planning Goal 12 (Transportation), by estimating household and employment capacity within the 2002 UGB. ODOT used this information to model impacts of development alternatives on the transportation system from each Transportation Analysis Zone (TAZ).

²⁷ The capacity for residentially-designated parcels to meet residential land needs is considered on a parcel-by-parcel basis, rather than on an aggregate land area basis. For example, a two-acre parcel with an existing home zoned for 6,000 square foot lots will have some left-over land. After accounting for streets (20% of the 87,120 square-foot parcel) and the existing home (one-fifth of an acre or 8,712 square feet), 60,984 square feet remain. At 6,000 square feet per lot, the buildable area of the parcel can accommodate 10 legal lots, leaving an "extra" 984 square feet. Because land usually develops on a parcel-by-parcel basis, it would be unrealistic to assume that this left-over land will be used by another developer.

Table 6: Buildable Lands Summary within the 2002 UGB

Plan Designation	Total Acres	Net Buildable Acres	Unit Capacity (RES) or Employee Capacity (IND, COM)
Commercial	599	108	2,135
Industrial	685	47	658
Residential <12	1,478	403	2,190
Residential >12	385	108	1,256
Public (open space)	94 (583)	6	NA

Source: Winterbrook Planning

*Acreage available for new targeted industries was reduced from 126 to 47 based on property owner interviews, as described in the Employment Land Needs section. The remaining 79 acres are being held for future expansion by existing Woodburn firms, and thus will accommodate additional employees beyond the number shown in Table 6.

Table 7: Lots by Size (in Buildable Acres)

Plan Designation	Lots < 1 Acre	Lots 1-5 Acres	Lots 6-10 Acres	Lots 11-20 Acres	Lots 20-50 Acres	Lots >50 Acres
LDR	313	24	2	4	3	1
MDR	40	10	2	3	0	0
Commercial	49	13	2	1	1	0
Industrial*	11	10	1	1	0	0

Source: Winterbrook Planning

* The number of available industrial parcels also was reduced based on property owner interviews conducted in 2005, as described in the Employment Land Needs section.

The 2005 Buildable Lands Inventory (BLI) included optimistic assumptions regarding residential infill and partially developed residential, commercial and industrial lands. For example, the BLI reserved only one-fifth of an acre for existing homes on partially developed lots (compared with one-half acre assumed by Metro), and assumed that the remainder of the lot would develop at densities permitted by zoning. The BLI also looked carefully at partially developed industrial and commercial parcels, was based on interviews conducted with property owners, and assumed that unused portions of parcels that were not planned for expansion of the existing use would be available to meet new industrial and commercial siting needs.

PART II. AFFORDABLE HOUSING AND LAND EFFICIENCY MEASURES (ORS 197.296; GOAL 14: ACCOMMODATING NEEDS INSIDE UGB)

The Land Need section of Goal 14 requires a demonstration that identified land needs cannot reasonably be accommodated on land already inside the UGB by increasing land use efficiency. Goal 14, Land Need, provides that:

"Prior to expanding an urban growth boundary, local governments shall demonstrate that needs cannot reasonably be accommodated on land already inside the urban growth boundary."

As explained above, in this case, these standards require a demonstration that the projected needs for urban uses cannot be accommodated within the City's existing UGB, either by locating the needed uses on vacant buildable land within the UGB or by increasing the existing or future density and efficiency of uses within the UGB.

The City considered several alternatives and analyzed several measures to increase the intensity and efficiency of land use in Woodburn, prior to determining the need for UGB expansion. These land use intensification measures are described in Woodburn Comprehensive Plan Goal and Policy Amendments, WDO Revisions, and Technical Report 3 (Residential Land Needs Analysis). These intensification measures include provisions for infill and redevelopment, increased density, master planning and nodal development – all of which increase efficiency of land use.

The Council particularly notes the following provisions that encourage land use efficiency:

- The *Woodburn Comprehensive Plan* would provide *opportunities* for densities in excess of 10 dwelling units per net buildable acre outside of highly parcelized exception areas. By constraining the residential land supply based on optimistic density assumptions, land prices will increase, which in turn is likely to increase land use efficiency.
- Except for the developed MacLaren Youth Correctional Facility, all exception areas adjacent to the UGB are included within the expanded 2005 UGB. As noted above, the City has assumed that densities in exception areas will be greater than those actually experienced on infill parcels within the Woodburn City Limits from 1988-2002.
- Woodburn applied highly conservative assumptions for new Commercial land (only 22 additional buildable commercial acres are added to the UGB for the 18-year planning period), and prohibited Commercial plan amendments near Interstate 5 that would increase net commercial land area.
- Woodburn made liberal assumptions regarding redevelopment of commercial land, "infill" on residential land inside the existing UGB as well as in rural residential exception areas, and the availability of undeveloped portions of existing industrial land.
- The Woodburn Comprehensive Plan includes strong measures to ensure that industrially designated land within the Southwest Industrial Area (SWIR) is retained in agricultural use until targeted employer requirements are met.

-
- The Comprehensive Plan and WDO include limitations on division of parcels in the SWIR to insure that sites of sufficient size to satisfy requirements of target industries remain available.
 - The Comprehensive Plan and WDO require master planning for the SWIR and the Parr Road Nodal Development Area prior to annexation and provision of urban services.
 - Minimum density requirements for all residential land.
 - The RCWOD contains clear and objective protection measures for Woodburn's floodplains, wetlands and riparian corridors.

Built and Committed Exception Areas

Marion County EFU zoning maintains large lot sizes parcels within the unincorporated urbanizable area. EFU zoning will continue to apply to such lands until Woodburn approves a master plan showing maximum efficiency of land use , the land is annexed, and urban zoning has been applied.

Woodburn has four exception areas adjacent to the 2002 UGB²⁸:

- Butteville Road Rural Residential Exception Area (155 gross acres)
- Northeast (Hwy 99E) Rural Residential Exception Area (13 gross acres – completely developed as a manufactured dwelling park)
- MacLaren School Institutional Exception Area
- Southeast (Hwy 99E) Residential/Commercial Exception Area (35 gross acres)

Except for the MacLaren School, all exception areas adjacent to the Woodburn UGB are included within the 2005 UGB. The Butteville Road residential exception area contains 108 net buildable acres, but due to the existing parcelization and development pattern, this land cannot meet residential land needs as efficiently as would large, vacant parcels (See Attachment 1: Development Pattern of Exception Area). As shown in Table 8 below, the median parcel size in the Butteville Road Exception Area is less than two acres. Only 2 of the 61 residential exception area parcels in the Butteville Road Exceptions Area are between 6-10 acres in size.

²⁸ Information in Technical Report 3 related to exception areas has been refined through additional GIS analysis of the areas.

Table 8: Butteville Road Exception Area Parcel Characteristics

Site Description	Exception Area Parcels
Sites <2ac	43
Acres	44
Sites 2-5ac	16
Acres	47
Sites 6-10ac	2
Acres	17
Total Sites	61
Total Acres	108

Source: Winterbrook Planning

During the 5-year period from 2000 through 2004, Woodburn approved 8 land division applications for residential parcels under 5 acres with existing residences – parcels that would be defined by this study as “potential infill” or “partially developed”. These land divisions comprised a total of 9.8 acres and 24 lots, for an average total post-division density of 2.4 units per gross acre. The 2.4 unit-per-acre density includes the original house and lot. Thus, the Council assumes that exception area parcels (at 3 new units per net acre on undeveloped portions of each exception area lot²⁹) will develop at densities comparable to, but slightly higher than, those of existing lots of less than five acres in the City Limits.

This assumed infill density for exception areas is slightly higher than the actual infill density that has occurred inside the existing Woodburn city limits over the last five years. This assumption is optimistic because the infill and partially developed parcels were inside the city limits with urban services, whereas the exception areas lie at the UGB fringe, are outside the city limits, and currently do not have urban services. Moreover, public testimony at work sessions indicated strong opposition from most property owners to inclusion within the Woodburn UGB because they feared increased urban densities. Thus, it is probable that some parcels within built and committed exception areas will remain undeveloped during the planning period.

The need for low-density infill housing can be accommodated to a limited extent within the Butteville Road Exception Area. The Butteville Road Exception Area has the capacity for limited infill at an estimated density of 3 units per net buildable acre, after subtracting a fifth of an acre for each existing house. At this density, the Butteville Road area has the capacity for 295 low-density residential units.

²⁹ The parcelization pattern and small size of many of these lots limit efficient development – causing a loss of “partial units” on individual lots. For example, an exception area lot that is 0.75 acres in size is expected to accommodate 2, rather than 2.27 units. This contributes to lower anticipated densities in built and committed exception areas, and explains why the capacity of the area’s 108 net buildable acres is 295 units.

The Southeast Exception Area contains one large undeveloped parcel with approximately 7.5 net buildable acres adjacent to the south of a developed manufactured home park within the City Limits. This parcel has a Medium Density Residential Plan designation and development of this parcel is assumed to occur at the same density assumed for MDR sites within the existing UGB (14 units per net buildable acre), yielding a capacity for 105 medium density residential units. This exception area also includes approximately 11 net buildable commercial acres that were applied toward 2020 commercial needs.

The Northeast Rural Residential Exception Area is fully developed as a manufactured dwelling park and has no remaining development capacity.

The MacLaren School Exception Area is owned by the state and is meets statewide juvenile incarceration needs that generally are unrelated to Woodburn's institutional needs. This state facility already has urban services and is not available or appropriate for meeting long-term institutional needs of Woodburn.

New Residential Plan Designations and Zoning

In order to provide buildable land for needed housing types in Woodburn (as identified by the OHCS Land Needs Model and by Winterbrook's land needs analysis), the City has adopted two new "nodal development" overlay districts: Nodal Single Family Residential (RSN) and Nodal Multi-Family Residential (RMN). Vertical mixed use is allowed in the Commercial plan designation where implemented by the Downtown Development and Conservation district; and in floors above ground floor commercial in the Nodal Neighborhood Commercial District.

There are six zoning districts (two mixed use and four residential) that are available to meet housing needs in Woodburn:

- **Residential Single Family (RS):** This district allows stick-built single-family homes, manufactured dwellings (not parks), and some duplexes. Approximately 30% of new dwelling units are planned in this district.
- **Nodal Single Family Residential (RSN):** This overlay district allows smaller lot single-family homes, zero lot line single-family dwellings, and manufactured homes in Residential Single Family zoned areas. Approximately 30% of new dwelling units are planned in this district.
- **Medium Density Residential (RM):** This district allows duplexes, manufactured dwelling parks, and medium density multi-family dwellings. Approximately 20% of new dwelling units are planned in this district.
- **Nodal Multi-Family Residential (RMN):** This overlay district allows slightly higher densities, and would allow condominiums, townhouses, and row houses in Medium Density Residential zoned areas. Approximately 20% of new dwelling units are planned in this district.

- **Downtown Development (DDC) and Nodal Neighborhood Commercial (NNC):** Vertical mixed-use housing is allowed above retail and would be generally confined to the downtown area and Parr Road Nodal Commercial area. Approximately 1% of new dwelling units are planned in these districts.³⁰

This amended zoning program substantially increases land use efficiency on buildable lands within the 2005 Woodburn UGB. If Woodburn were to expand exclusively onto large tracts of agricultural land (and not include built and committed exception areas), then the City would need 573 net buildable acres to accommodate needed housing through 2020. This is from 85 to 107 fewer net buildable acres than would have been needed under the base case alternatives discussed above.

However, the advantage provided by land use efficiency measures is counter-balanced in part by inclusion of residential exception areas, which develop at less efficient overall densities. The 2005 UGB includes all residential exception areas adjacent to the existing UGB. As shown in Table 9 below, even with the less-efficient exception areas, implementation of the new Nodal districts decreases residential land need to 634 net buildable acres through 2020 – about 46 net buildable acres less than would be needed if actual development trends were extended without land use efficiency measures (as shown in Table 4), and about 33 net buildable acres less than projected in the updated OHCS Model (as shown in Table 4B).

Table 9: Projected Residential Land Needs (Net Buildable Acres)

Plan	Net Assumed Density	Percent	Dwelling Units	Net Buildable Acre Need
LDR (RS)	5.5	24%	1,195	217
LDR in Exceptions Areas (RS)	3.0	6%	295	107
Nodal LDR (RSN)	8.0	30%	1,490	186
MDR (RM)	14.0	17.5%	864	62
MDR in Exceptions Areas	14.0	2%	105	8
Nodal MDR (RMN)	18.0	19.50%	969	54
DDC and NNC	16.0	1%	50	0
Subtotal Exceptions Area	3.5	8%	400	115
Subtotal Other Buildable Lands	8.8	92%	4,568	519
Total	7.8	100%	4,968	634

Source: Winterbrook Planning

Table 10 provides more detail on the distribution of housing by type and density within each Woodburn zoning district. To achieve the densities projected for each housing type, the City amended the Woodburn Comprehensive Plan and Development Ordinance. Thus, Woodburn adopted "measures" to increase density and provide for more affordable housing,

³⁰ Over 100% due to rounding.

as proscribed by ORS 197.296. These measures are included in adopted Comprehensive Plan and Development Ordinance amendments, and are outlined as follows:

- **Plan for Higher Density** – Woodburn’s new zoning districts allow for cumulative maximum densities of about 10.3 dwelling units per net buildable acre, which compares favorably with the 8 dwelling units per gross buildable acre recommended in the *Marion County Urban Growth Management Framework Plan*. Assuming that development will occur at 80% of maximum permitted density (the minimum density permitted by the Plan and the WDO), Woodburn projects that new development through 2020 will occur at an overall density of 7.8-8.9 dwelling units per net buildable acre.³¹ This is significantly higher than the actual density of about 7.25 dwelling units per net buildable acre developed between 1988 and 2002.
- **Multi-Family Mix** – Woodburn planned for a ratio of 60% single-family (including manufactured homes, with nearly 50% of the single-family as “small lot” single-family) and 40% duplex, attached single family or multi-family for new residential development in Woodburn through 2020.
- **Modify Zoning Districts** – Woodburn adopted two new overlay districts, Nodal Single Family Residential and Nodal Multi-Family Residential, and a new Nodal Neighborhood Commercial district that allows Vertical Mixed Use, in order to better meet housing type needs and allow for higher density in mixed-use node areas.
- **Mixed-Use Node** – Woodburn designated a nodal development area in the southwest portion of Woodburn, near Parr Road. This area will have a mix of multi-family, small lot single-family, and row houses, as well as a small neighborhood commercial center and a location near new industrial jobs.
- **Minimum Density Standards** – Woodburn incorporated minimum density standards for new subdivisions and planned developments in each of its residential zones. This standard will achieve at least 80% of maximum permitted densities.

³¹ Projected densities are 80% of maximum densities, outside of exception areas planned for LDR. The 7.8 units per net buildable acre includes exception areas and other buildable lands; whereas the 8.9 figures excludes exception areas.

Table 10: Housing Need by Type, Density and Zoning District

Housing Type	Number of New Units	Percentage of New Units	Projected Net Density	Woodburn Zoning District
LDR and MH (Standard Lot)	1,145	23%	5.5	RS *
LDR and MH Exceptions Areas	295	6%	3	RS
Nodal SF (Small Lot)	1,490	30%	8	RSN *
Duplex	50	1%	8	RS
Duplex	50	1%	8	RM *
MH in MHP	199	4%	8	RM
Attached Single Family	99	2%	12	RMN *
Multi-Family	615	12%	14	RM
Multi-Family Exceptions Areas	105	2%	14	RM
Multi-Family	870	18%	18	RMN *
Multi-Family	25	1%	16	DDC *
Multi-Family	25	1%	16	NNC *
Totals / Percentages	4,968	100%	-	N/A

Source: Winterbrook Planning

* Indicates new adopted measure.

Table 11 on the following page compares buildable residential land supply in 2002 (before amendments to the comprehensive plan or UGB) and residential land needed after adoption of the measures described above. Within the 2002 UGB, there is a surplus of land designated for Low Density Residential and Medium Density Residential use, and a deficit of land designated for Nodal Low Density Residential and Nodal Medium Density Residential use. There is a need to include all available residential exception area land before any other land. This is accounted for in Table 11. There is also a deficit of residentially designated land for public and semi-public uses. Combined, this residential deficit totals 340 acres. The 2005 Buildable Lands Inventory (BLI) accounts for Comprehensive Plan changes and new planned street systems within the existing UGB that decrease residential land supply by approximately 30 acres. **This brings the net buildable residential lands deficit within the 2002 UGB to about 370 acres.**

To ensure zoning consistent with Comprehensive Plan designations, as well as provide opportunity for affordable housing, the City re-designated some lands inside the existing UGB to better provide for the City's housing needs through 2020. The unmet need for

approximately 370 acres of residential land supports the City's decision to expand the UGB by approximately 384 net buildable acres for residential and public/semi-public uses through 2020. This acreage is within 15 acres of the overall residential need, calculated on an aggregate basis. However, when the *capacity* of each parcel is considered individually (rather than in the aggregate), there is an under-supply of approximately 30 acres—slightly under the need when inefficient lot sizes are accounted for, slightly above when they are not.³²

Table 11: 2020 Residential Land Needs (Net Buildable Acres) after Adoption of Land Use Efficiency Measures

Plan Designation	Acres Available	Acres Needed	Acres Surplus (deficit)
LDR	403	217	186
LDR Exceptions	0	107	(107)
MDR Exceptions	0	8	(8)
Nodal LDR	0	186	(186)
MDR	108	69	39
Nodal MDR	0	54	(54)
VMU	0	0	0
Public / Semi-Public	-	210	(210)
Totals	511	851	(340)

Source: Winterbrook Planning and City of Woodburn

³² This figure represents total acreage, and does not indicate individual parcel capacity. Due to inefficient lot sizes within the existing UGB (e.g., a 7,000 square foot lot in a zone with a minimum lot size of 6,000 square feet), mainly within the areas planned for low density residential uses, **the actual capacity provided for residential dwelling units is approximately 30 acres lower than the total land supply would indicate.**

PART III: UGB LOCATIONAL ANALYSIS (ORS 197.298; GOALS 5, 7, 11-13; GOAL 14, BOUNDARY LOCATION FACTORS 1-4)

The Goal 14 Boundary Location section reads as follows:

The location of the urban growth boundary and changes to the boundary shall be determined by evaluating alternative boundary locations consistent with ORS 197.298 and with consideration of the following factors:

- (1) Efficient accommodation of identified land needs***
- (2) Orderly and economic provision of public facilities and services;***
- (3) Comparative environmental, energy, economic and social consequences;***
and
- (4) Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB.***

Winterbrook identified 8 Study Areas surrounding the existing Woodburn UGB for potential inclusion in the UGB, and evaluated each study area for consistency with ORS 197.298 priorities, Goal 14 (Urbanization) Boundary Location Factors 1-4, and Goals 5, 6 and 11.

To address ORS 197.298 priorities and Goal 14 Boundary Location Factor 4, Winterbrook inventoried Goal 2 exception areas (built and committed to non-resource uses) and agricultural soil classifications for each study area.

To address Goal 11 (Public Facilities and Services) and Goal 14 Boundary Location Factor 2, the Woodburn Public Works Department analyzed the feasibility and cost of providing water, sanitary sewer and storm sewer services to each study area.

To address Statewide Planning Goal 5 (Natural Resources, Scenic and Historic Resources, and Open Spaces), Goal 7 (Areas Subject to Natural Hazards) and Goal 14 Boundary Location Factor 3 (economic, social, environmental and energy consequences), Winterbrook inventoried wetlands, stream corridors, floodplains, and wildlife habitat (for special status species) within each study area.

Finally, to determine the area of buildable land for each study area, Winterbrook applied the same methods used within the existing Woodburn UGB. (See Technical Memorandum 1 - Buildable Lands Inventory (2005).) Protected Goal 5 and 7 resources were considered unbuildable. A fifth of an acre was considered non-buildable for each single-family residence in rural residential areas. For partially developed industrial and commercial land, the unbuildable acreage for each parcel was determined based on actual development area based on aerial photographs and visual surveys.

Potential UGB Expansion Study Areas

The 8 UGB Expansion Study Areas extend approximately one-half mile outside of the 2002 UGB. The 8 Study Areas were defined based on transportation considerations (Study Areas usually comprise multiple transportation analysis zones or TAZs) and drainage basins. Study Area boundaries were extended in certain locations to include topographic or artificial features (e.g., roads or streams), contiguous exception areas, and whole tax lots (where practical).

Major roads and railways form the primary divisions between the Study Areas. The Study Areas range in size from 191 to 755 acres, and have a combined size of 3,984 acres – or about six square miles. The Study Areas are ordered in a clockwise manner, beginning to northwest of the existing UGB with Study Area 1 (SA-1 - Northwest) and ending with Study Area 8 (SA-8 - West). The location and size of each Study Area is summarized in Table 12.³³

Table 12. Study Area Location and Size

Study Area	Location/boundaries	Size (acres)
SA-1. Northwest	Bounded to the east by Interstate 5 and the UGB, west by Oregon Electric Railway, south by Highway 214 (Newberg Hwy.), and north by a line approximately 1,000 feet north of and parallel to Crosby Road.	655
SA-2. North	Bounded to the west by Interstate 5, east by Union Pacific Railway and N. Front Street, south by the UGB, and north by a line approximately 1,000 feet north of and parallel to Crosby Road.	675
SA-3. Northeast	Bounded to the west by Union Pacific Railway and the UGB, east by the MacLaren School for Boys, north by Dimmick Road NE, and south by Highway 211 (Estacada Hwy).	330
SA-4. East	Bounded to the west by the UGB and Cooley Road, east by properties within ½ mile of the UGB (Pudding River plateau, reservoir), north by Highway 211 (Estacada Hwy), and south by Highway 214.	343
SA-5. Southeast	Bounded to the west by Highway 99E (Pacific Hwy) and the UGB, east by properties within ½ mile of the UGB (Pudding River plateau), north by Highway 214, and south by Geschwill Lane NE.	431
SA-6. South	Bounded to the east by Highway 99E (Pacific Hwy), west by Southern Pacific Railroad, north by the UGB, and south by Belle Passe Road.	191
SA-7. Southwest	Bounded to the east by Southern Pacific Railroad, west by Interstate 5, north by the UGB, and south by property lines.	604
SA-8. West	Bounded to the east by Interstate 5 and the UGB, west by Oregon Electric Railway, north by Highway 214 (Newberg Hwy.), and south by property south of Parr Road NE.	755
TOTAL		3984

Source: Winterbrook Planning

³³ Study Area 7 was increased in size by 3 tax lots totaling approximately 98 acres in response to comments by DLCD and 1000 Friends. These added parcels included no natural resource or natural hazard lands and contained about 36 acres of Class II soils, 61 acres of Class III soils, and an acre of Class IV soils. These changes are reflected in this report, but not in the 2002 Technical Report 3: Potential UGB Expansion Area Analysis; Natural Resources Inventory.

The 8 study areas are comprised entirely of U.S. Natural Resources Conservation Service (NRCS) Class I through Class IV agricultural soils. Approximately 97 percent of non-exception area lands are classified as high value farmland. Constrained Goal 5 and 7 resource lands total 248 acres and are located primarily along the Seneca and Mill Creek corridors in Study Areas 1 and 2. Ravines associated with significant riparian corridors generally have Class IV agricultural soils. Thus, the Study Areas with the lower quality agricultural soils tend to have the least buildable Goal 5 and 7 resource sites. Table 13 describes the soil type and natural features constraints of each study area.

Table 13. Goal 3, 5 and 7 – Constrained Land Summary

Study Area	Size (acres)	Goal 5 (Natural Resources)			Goal 7 Flood-plains	Total Constrained	Goal 3 (Agricultural Lands) ²			
		Vetlands	Streams	Species			Class I	II	III	IV
1. Northwest	655	54.37	96.24	W/in streams	16.89	107.32	4	320	73	30
2. North	675	34.44	62.47	W/in streams	40.62	68.31	29	432	83	62
3. Northeast	330	6.93	14.95	W/in streams	0	15.12		135	27	10
4. East	343	3.20	18.49	W/in streams	0	19.22		296	14	12
5. Southeast	431	0	6.15	W/in streams	0	6.15		355	46	24
6. South	191	15.30	15.34	W/in streams	11.38	16.14		147	2	12
7. Southwest	604	0.87	0	0	0	0.87		397	185	20
8. West	755	4.43	14.09	W/in streams	0.26	14.41	40	567	52	81
Total Area	3984	119.54	227.73	227.73	69.15	247.54	73	2649	482	251
% of Study Area	100 %	3.00%	5.72%	5.72%	1.74%	6.21%	1.83 %	66.49 %	12.10 %	6.30%

Source: Winterbrook Planning

1. Adjusted for overlapping resource coverage.
2. Excludes Goal 5 and 7 constrained lands and exception areas.

Table 14 indicates, by study area, the gross and net buildable acreages included in the 2005 Woodburn UGB, and the Plan Map designation for each area.

Table 14. Areas Proposed for Inclusion in 2005 UGB

Study Area	Plan Map Designation	Gross Acreage	Net Buildable Acres
1 Northwest	Low Density Residential	155	107
2 North	Low Density Residential	210	150
	Commercial	2	2
3 Northeast	Low Density Residential	13	0
6 South	Commercial	13	13
	Medium Density Residential	8	8
	Low Density Residential	15	0
7 Southwest	Low Density Residential	85	68
	Medium Density Residential	60	51
	Nodal Commercial	9	8
	SWIR	279	252
8 West	SWIR	130	111
Total	---	979	770

Source: Winterbrook Planning

ORS 197.298 – Priority Areas for UGB Expansion

ORS 197.298(1) requires that the following priorities be used in selecting land for inclusion in a UGB (in order of higher to lower priority for inclusion):

(1) Land designated as an urban reserve under ORS 197.298.

Woodburn has no lands designated “urban reserve;” therefore, this priority does not apply.

(2) Exception areas or non-resource land adjacent to the UGB.

Woodburn has five exception areas adjacent to its existing UGB – to the west (1), southeast (2), and northeast (2). To comply with this priority, the City included all of these exception areas in the 2005 UGB, with the exception of the MacLaren Youth Correctional Facility. This is a state facility that already has urban services and offers no opportunity for further urban development. Neither MacLaren nor Woodburn would benefit from inclusion of this developed facility within the UGB. There is no other non-resource land adjacent to the 2002 Woodburn UGB. All land surrounding the 2002 Woodburn UGB is Class I – IV agricultural land.

(3) Land designated as marginal land under ORS 197.247.

Marion County is not a "marginal lands" county and has no lands designated as "marginal lands;" therefore, this priority does not apply.

(4) Land designated for agriculture or forestry in an acknowledged comprehensive plan.

Because (a) there are no designated urban reserve lands or designated marginal lands surrounding Woodburn, (b) no non-resource areas adjacent to the existing UGB other than exception areas, and (c) the adjacent exception areas with buildable lands that have been included in the 2005 UGB will accommodate only an additional 400 dwelling units, agricultural land must be included in the 2005 UGB to meet demonstrated needs for industrial, residential, public and semi-public land.

ORS 197.298(2) requires that "higher priority [for inclusion in a UGB] shall be given to land of lower capability as measured by the [U.S. Natural Resources Conservation Service (NRCS) agricultural soil] capability classification * * *."

Woodburn carefully considered impacts on agricultural lands when deciding in which direction(s) to expand the UGB. Woodburn's 2002 UGB is surrounded by Class I and II soils, so it would be impossible to avoid high value farmland in any expansion scenario. However, ORS 197.298(2) requires analysis of potential expansion areas to determine which areas contain lower quality soils than others. Some Study Areas contain the highest value (Class I) soils, while others have substantial inclusions of less valuable Class III soils. As noted immediately above and in the Executive Summary, the Class IV soils are generally unbuildable and therefore cannot meet identified urban population or employment needs.

Table 15 below summarizes agricultural soil capability of buildable lands by study area, exclusive of exception areas.

Table 15. Soil Classifications by Study Area*

Study Area	Size (acres)	Class I		Class II		Class III		Class IV	
		Acres	%	Acres	%	Acres	%	Acres	%
1. Northwest	655	4	1%	320	49%	73	11%	30	5%
2. North	675	29	4%	432	64%	83	12%	62	9%
3. Northeast	330		0%	135	41%	27	8%	10	3%
4. East	343		0%	296	86%	14	4%	12	3%
5. Southeast	431		0%	355	82%	46	11%	24	6%
6. South	191		0%	147	77%	2	1%	12	6%
7. Southwest	604		0%	397	66%	185	31%	20	3%
8. West	755	40	5%	567	75%	52	7%	81	11%
Total Area	3984	73		2649		482		251	
% of Study Area	100%	1.83%		66.49%		12.10%		6.30%	

Source: Winterbrook Planning and USCS Maps.

* Excludes Goal 5 and 7 unbuildable lands and exception areas.

Areas with Class I Soils

Class I soils are located only in Study Areas 1, 2, and 8. Study Area 1 (other than the exception area adjacent to the 2002 UGB) was determined to be unsuitable for expansion. The Class I soils in Study Area 2 are within a master-planned golf course interspersed with Filbert trees, and were originally proposed to be included in the 2005 UGB. However, to comply with the statutory priorities, the City revised the proposed boundary so that only one acre of Class I soils in this Study Area is included in the adopted UGB. The portion of Study Area 8 included in the 2005 UGB contains no Class I soils.

Areas with Class IV Soils

Class IV soils are located in all Study Areas. However, these soils are associated with stream corridors that would, if included within the UGB, be protected under the City's RCWOD safe harbor zoning regulations. Therefore, Class IV soils do not meet an identified population or employment growth need. Woodburn has sufficient constrained land within its existing UGB to meet natural area needs identified in the *Woodburn Parks and Recreation Plan*. Therefore, the presence of Class IV soils was not a determining factor for the City in deciding the direction of growth.

Areas with Class III Soils

Class III soils have the lowest quality agricultural classification that are capable of accommodating planned urban development within the 8 Woodburn Study Areas. Study Area 7 has by far the largest percentage of Class III soils: 31% of the Southwest Study Area is comprised of Class III soils that do not have inventoried Goal 5 or 7 resource areas. Study Area 2 (North) has the second highest percentage of Class III soils at 12%, followed by Study Areas 1 and 5 (11%), 3 (8%) and 8 (7%). However, the Class III soils in Study Areas 1, 3, 5, and 8 are dispersed or located at the edge of an unbuildable riparian corridor, whereas the Class III soils in Study Area 2 are concentrated south of Crosby Road and East of I-5, on what is known as the "Fessler property." Therefore, Study Areas 2 and 7 have the highest percentage of Class III soils and they contain the top priority resource lands for inclusion according to ORS 197.298(2). Most (83%) of the resource land included within the 2005 UGB for industrial and residential uses is within these two Study Areas.

Areas with Class II Soils

Class II soils are the most common soil classifications immediately surrounding the 2002 Woodburn UGB. As noted in the Executive Summary, Class II soils must be traversed in three areas to reach large Class III inclusions. These three areas are found in Study Area 2 (North), Study Area 7 (Southwest) and Study Area 8 (West.)

As noted above and shown on maps in the Council's record, Woodburn is surrounded predominantly by Class II agricultural soils. However, there are two large concentrations of Class III soils located within the eight study areas, but these areas of Class III soils can only be developed by extending services and arterial streets through Class II soils. ORS 197.298(3)(c) allows for the inclusion of lower priority Class II soils to achieve maximum efficiency of land use and where necessary to serve higher priority Class III soils.

- **Study Area 2** is comprised primarily of Class II agricultural soils. However, the second largest Class III soils concentration is also found in Study Area 2 (North) and comprises approximately 34 acres. The Class III soils are found on the Fessler property, located between Interstate 5 and Boones Ferry Road, south of Crosby Road and north of the 2002 UGB. In order to develop the Class III soils on the Fessler property for needed residential and public uses, Boones Ferry and Crosby Roads must be improved to arterial and service collector street standards, and urban services must be extended through intervening Class II soils. (See Appendix B of the Woodburn Public Facility Plan, which includes maps showing how sanitary sewer, water, and storm drainage services must extend through Class II soils located on the OGA and Fessler properties to efficiently serve the Class III soil areas.)

Although the Council has rejected bringing Class I agricultural soils into the UGB to meet specific higher-end housing needs, the Council continues to support bringing in the western portion of the OGC golf course site, which has almost no Class I soils, for the following reasons.

First, the Council agrees that the golf course has provided, and continues to provide a unique opportunity to meet higher-end housing needs in Woodburn. This conclusion is

supported by testimony from Renaissance Homes, which stated that this company specializes in higher-end housing, and would not have invested in Woodburn if there had not been development area adjacent to the golf course. Higher end housing is needed to retain managers and higher paid workers who will have jobs within the SWIR, if the City's economic development strategy is successful. Thus, the Council agrees, for reasons stated in Mr. Alfred's testimony, that *some* land near the golf course outside the UGB is needed for higher-end housing. However, because there is a choice between Class I and II soils, Council cannot support bringing the lowest priority land (Class I agricultural soils) into the UGB to meet this need. Thus, the Council decided to include some predominantly Class II land (shown on the Study Area 2 Expansion Area and Soils Map) within the UGB to meet the general need for housing, and specific need for higher-end housing, as authorized under ORS 197.298(3)(a).

Second, there are urban efficiency reasons to bring the northwest portion of the OGC property into the UGB. An emergency access is required to connect an approved subdivision within the 2002 UGB to Boones Ferry Road in Study Area 2. This emergency access road will cut through a relatively narrow strip of predominantly Class II orchard land sandwiched between existing golf links. This emergency access road will have adverse impacts on agricultural operations by providing un-buffered vehicular and pedestrian access through the center of the orchard. The City would prefer to have this emergency access road constructed to urban street standards, with curbs, gutters and sidewalks, because it serves a local street function. The only reasonable way to fund these improvements is for land on either side of the street to be developed for urban residential uses. Moreover, this land must be developed to help pay for a looped water system beneath the local street, which is needed to maintain adequate water pressure for land within the UGB and for proposed expansion areas north of the UGB. Moreover, the most direct way for gravity flow sanitary and storm sewer to be extended from the Fessler property to the City Sewage Treatment Plan is through the OGC property, beneath this emergency access road. Thus, land shown on the Study Area 2 (on either side and generally west of the emergency access road) is justified for urban efficiency reasons under ORS 197.298(3)(c).

Finally, development of land between the emergency access road and Boones Ferry Road is necessary to pay for improvement of the east side of Boones Ferry Road to urban minor arterial standards. Such improvement is necessary to serve planned land uses safely and efficiently, as called for in the 2005 Woodburn Transportation Systems Plan.

- **Study Areas 7 (Southwest) and 8 (West)** also have predominantly Class II agricultural soils. However, SA 7 has by far the largest Class III soil area, which includes approximately 185 acres located generally south of Parr Road and east of Interstate 5. Class II soils in SA 7 and 8 separate this Class III area from the 2002 UGB. Most of this Class II and III soils area is designated for industrial use within the SWIR, although a portion to the east is designated for residential use. To provide access to I-5 for Class III soils within SA-7, Butteville Road must be improved to arterial standards to connect with the planned South Arterial. For this to happen, land in SA-8 between the UGB and Butteville Road must develop and help pay for needed

road and utility improvements. Evergreen Drive, which will be extended by private developers to the 2002 UGB line next year, also must be improved to arterial street standards on Class II soils to connect with Parr Road and the South Arterial. In addition, urban sewer, water and storm drainage services must be constructed through intervening areas with Class II soils to allow development of lower priority Class III areas.

The Class III soils found on the southern portion of Study Area 7 continue to the south and southwest of this study area. Although the City did include one 46-acre primarily Class III parcel located south of the original Study Area 7, it did not include additional areas of predominantly Class III soil further to the south and southwest, for two reasons.

First, the two Class III parcels located between the 2005 UGB and I-5 are not needed at this time for industrial expansion. Although these parcels meet some SWIR siting criteria, their development would not facilitate extension of the South Arterial, which is needed to provide direct access to I-5 from SWIR parcels to the north. Woodburn did not add these parcels to the UGB to meet the siting needs of target industries.

Second, the large concentration of Class III soils located further to the south extend beyond the two-mile (from the I-5 Interchange) locational need limit established by the Council for inclusion of parcels within the SWIR. This land is too far from the I-5 Interchange to be attractive to targeted industrial firms. Inclusion of this land would have meant that other more suitable land closer to the interchange and urban services could not be justified (on a strict need basis) for inclusion within the UGB. Further, inclusion of parcels with Class III soils south of the expanded SA 7 would have resulted in an inefficient urban form, would not have met the City's industrial siting need criteria, and would have increased substantially the cost of providing urban services.

The Council also considered the possibility of including land south of the SWIR to meet residential land needs. The Council rejected this option for several reasons:

- First, providing residential land directly abutting the SWIR would have created unnecessary land use conflicts, which would be inconsistent with the siting needs of target industries, ORS 197.712, and the Goal 9 administrative rule provisions requiring minimization of conflicts between industrial and residential development.
- Second, providing new residential land immediately south of the SWIR would be contrary to identified livability needs. The Council has carefully selected residential areas to encourage livable neighborhoods in nodal development centers and near the golf course. Providing residential land south of planned industrial development would be inconsistent with the City's goal of providing livable neighborhoods. Moreover, extension of urban services further to the

south would increase housing costs in a manner inconsistent with Statewide Planning Goal 10.

- **Third**, the Council recognized livability policies in the Marion County Growth Management Framework Plan that discourage cities growing together. If residential growth were encouraged south of the SWIR, the mandated buffer between the Cities of Gervais and Woodburn would be reduced. As in the North Plains situation, *if* the UGB were extended south of the SWIR to accommodate residential growth needs, then the new residential area would be separated from the neighborhood commercial areas, parks and schools by incompatible industrial development.

As noted earlier, Woodburn has no large concentrations of Class III soils adjacent to the 2002 UGB. In Study Areas 2, 7 and 8, maximum efficiency of land use requires that intervening Class II soils be efficiently developed, to allow full development of more distant areas with Class III soil concentrations.

In other UGB Study Areas, Class II soils predominate and there are no large concentrations of buildable Class III soils. Unlike the land included within the 2005 Woodburn UGB, there is no need to develop Class I and II lands in Study Areas 1, 3, 4, 5, or 6 to achieve urban efficiency objectives or provide services to areas with predominantly Class III agricultural soils. In other Study Areas, no identified urban land use need would be served by extending urban services through Class I and II soils to reach relatively small, linear configurations of unbuildable Class IV-VI soils.

In conclusion, the adopted UGB expansion avoids the highest value farm land wherever reasonably possible, while including land with the lowest agricultural soil classification that can be served in an efficient and livable UGB configuration.

Goal 14 Boundary Location Factors 1 and 2 – Efficiency and Serviceability

- (1) Efficient accommodation of identified land needs***
- (2) Orderly and economic provision of public facilities and services;***

In evaluating alternative areas for possible inclusion in the UGB, these factors require consideration of each study area's relative serviceability and efficiency in accommodating identified land needs. Winterbrook met with the City of Woodburn and ODOT to determine which study areas could be most efficiently developed for identified land needs and economically provided with public facilities and services. As described in Technical Report 3 (Potential UGB Expansion Area Analysis; Natural Resources Inventory), the buildable portions of all of the study areas contain relatively flat and reasonably well-drained soils that can accommodate the identified land needs.

Serviceability of Study Areas

Woodburn Public Works evaluated the cost of extending sewer, water, and storm drainage services to each of the study areas in a document titled "UGB Study Area Public Services Analysis" with a latest revision in August 2004. (See Appendix C to the PFP.) The results are summarized in Table 16.

Table 16, on the following page, assigns an initial ranking (A, B, or C) to the Study Areas based on service costs per acre.

- Top (lowest cost) ranking ("A") went to **Study Areas 3 (Northeast), 5 (Southeast), and 8 (West)** with per acre costs of around \$20-22,000.
- **Study Areas 1 (Northwest) and 2 (North)** received "B" rankings with per acre costs of about \$24,000.
- **Study Area 7 (Southwest)** with a per-acre cost of about \$29,000 received a "B-" ranking as it was higher than Study Areas 1 and 2, but lower than Study Areas 4 and 6.
- **Study Areas 4 (East) and 6 (South)** were significantly more expensive to serve on a per acre basis, with costs of \$34-35,000, which led to a "C" ranking..

Table 16: Ranked Public Utilities Costs by Study Area

Study Area	Land Use Distribution in Acres			Estimated Costs in \$Million				Est. Costs per Acre	Initial Ranking A, B, C
	Study Area	Residential	Commercial / Industrial	Sewer Costs	Water Costs	Storm Drainage Costs	Total Costs		
1. Northwest	600	360	240	4.48	6.10	4.17	14.75	\$24,583	B
2. North	650	440	210	5.20	6.28	4.17	15.65	\$24,077	B
3. Northeast	330	100	230	2.15	2.52	2.14	6.81	\$20,624	A
4. East	343	343	0	3.25	5.20	3.43	11.88	\$34,633	C
5. Southeast	431	0	431	2.70	3.26	3.15	9.11	\$21,137	A
6. South	189	189	0	2.30	2.64	1.47	6.41	\$33,915	C
7. Southwest	510	380	130	4.79	5.10	5.14	15.03	\$29,471	B-
8. West	755	457	298	5.62	6.67	4.63	16.92	\$22,411	A

Source: Woodburn Public Works Department (PPF, Appendix C) and Winterbrook Planning

There is a substantial difference among the study areas in public facilities costs for transportation improvements. As noted in the Executive Summary, the UGB is designed to facilitate construction of east-west alternatives to Highway 214. Development of study areas on the east side of Woodburn would not reduce congestion on City streets and County roads as much as development in study areas near I-5 (with access to I-5 from the southwest via Parr and Butteville Roads, the west via Butteville Road, and the north via Crosby and Butteville Roads). The limiting factor is the eastern access to the I-5 / Highway 214 Interchange, which can be avoided by directing traffic around rather than through the center of the City. This goal is furthered by including portions of Study Areas 1, 2, 7 and 8.

Although Study Areas 3 and 5 rank "A" for low costs of providing sanitary sewer, water and storm drainage, development of these areas would not help reduce transportation congestion at the I-5 / Highway 214 Interchange. Thus, the need to maintain interchange capacity was an important consideration in the decision to limit expansion into Study Areas 3 and 5. Moreover, including Study Areas 3 and 5 would not meet industrial siting requirements.

Study Areas 1, 2, and 8 are considered optimal for UGB expansion based on service efficiency, because these areas allow for the proposed "ring road" street configuration utilizing existing County roads (Crosby, Butteville and Parr) and also rank "B" or higher for sanitary sewer, storm drainage and water service efficiency. Although Study Area 7 has a "B-" ranking, southern portions of this area were included in large part because they include Class III agricultural soils, and therefore have a higher priority for inclusion under ORS 197.298.

To address ORS 197.298 priorities, the 2005 Plan includes several "exception areas" within Study Areas 1, 3, and 6, although Study Area 6 is relatively expensive to serve.

Ring Road System

Traffic congestion is most acute at the east access to the I-5 / Highway 214 interchange – because traffic from Woodburn and outlying areas to the east is funneled to I-5 almost exclusively from Highway 214 – and there are no other east-west urban arterial roadways available to facilitate access to I-5 from the west. To address this problem and alleviate cross-town traffic congestion, the 2005 Woodburn TSP (Figure 7-1) proposes two new north-south arterials and two new east-west arterials:

- **Evergreen Road** – connecting Highway 214 to Parr Road and the "South Arterial" parallel to and immediately east of I-5;
- **The "South Arterial"** – connecting Highway 99E to Butteville Road near the southern edge of the UGB;

- **Butteville Road** – connecting the "South Arterial" west of I-5 to Highway 214 and (eventually³⁴) Crosby Road; and
- **Crosby Road Segment** – connecting Settlemier – Boones Ferry Road to the I-5 overpass and (eventually) to Butteville Road and Highway 99E at the north UGB.

The Council anticipates that the Butteville Road, Evergreen Road, Parr Road and (the western portion of) the "South Arterial" improvements will be paid for by developers of industrial and commercial land – through SDC contributions, fees and frontage improvement requirements.

Serviceability of 2005 UGB Expansion Areas

The 2005 Woodburn UGB expansion includes land in Study Areas 1 (the Butteville Road rural residential exception area), 2 (Northwest residential area), 3 (Highway 99E developed manufactured dwelling park), 6 (Highway 99E rural residential and commercial exception areas), 7 (Southwest Industrial Reserve, nodal development and residential area), and 8 (western portion of the SWIR).

As described in Table 17 below, all 2005 UGB expansion areas can be served within the planning period. Smaller exception areas along Highway 99E in Study Areas 3 (Northeast) and 6 (South) are more costly to service, as shown by higher per-acre costs. The higher cost of including the exception areas in Study Areas 3 and 6 is due to the need for a new pump station to serve that area. The PFP includes additional information regarding how each UGB expansion area will be provided with sanitary sewer, water, storm drainage and transportation facilities, both in the short- (2005-2010) and long- (2010-2020) term.

The Public Works UGB Study Area Public Services Analysis (PFP, Appendix C) shows that providing sewer, water, and drainage service to the selected UGB expansion areas is feasible during the planning period, and reasonably economical. Consequently, the 2005 UGB expansion complies with Boundary Location Factor 2.

Table 17: Serviceability of 2005 UGB Expansion Areas by Study Area

Study Area	Exception Acres	Resource Acres	Estimated Service Cost	Estimated Cost per Acre
1. Northwest	155	0	\$4,280,000	\$27,613
2. North	0	212	\$4,210,000	\$16,381
3. Northeast	13	0	\$413,000	\$31,769
6. South	36	0	\$1,960,000	\$57,647
7. Southwest	0	433	\$10,230,000	\$26,992
8. West	0	130	\$3,238,000	\$15,202
Totals	204	775	\$24,331,000	\$23,150

Source: Woodburn Public Works Department (PFP, Appendix B)

³⁴ Because Crosby Road is located outside the 2020 UGB, it will serve a rural function during the 20-year planning period, *except* for the segment between Boone's Ferry Road and the I-5 overpass.

Transportation Scenarios

ODOT analyzed the three scenarios in the 2003 Draft Woodburn TSP for potential traffic impacts – especially to the I-5 Interchange. ODOT's modeling determined that there were no substantial differences among the scenarios with respect to the safety and efficiency of the transportation system. However, Scenario 1 was rejected because it limited expansion to the south, which would have made the Southern Arterial less practical. As noted in the 2005 Woodburn TSP, expansion to the south was viewed as essential to allow for efficient nodal development and to connect Butteville Road to Highway 99E via a new southern arterial street. The adopted 2005 Woodburn TSP found that (following Table 5-2):

"...more than 90 percent of the lane miles on the system are projected to operate under or near capacity in the year 2020 in all scenarios. However, the proposed Southern Arterial and the widening of Oregon 214 between Butteville and Oregon 99E (as included in Alternatives 2 and 3) would significantly reduce the number of lane miles forecast to operate over capacity."

The 2005 Woodburn TSP also analyzes intersection operations under the three scenarios and concluded that *"Based on the operational analysis, * * * Alternative 2 is the preferred alternative to meet the City's long-term transportation goals. * * * Alternative 2 balances the need for operational and mobility improvements with the constraints of funding and coordination with other jurisdictions."*

Thus, the adopted 2005 Woodburn TSP concluded that Alternative 2, which relies on the high employment projection and includes expansion to the west and southwest to accommodate industrial uses, and to the north to meet residential needs, is the most efficient from a transportation perspective.

Goal 14 Boundary Location Factor 3 – Comparative ESEE Consequences

(3) Comparative environmental, energy, economic and social consequences

Goal 14 Boundary Location Factor 3 requires a description of the characteristics of the alternative areas considered and the advantages and disadvantages of including each Study Area, or a portion of a Study Area, within the 2005 UGB.

From a social and economic perspective, avoidance of high value farmland generally should be encouraged, because such lands support Marion County's resource-based economy. From an environmental perspective, development of steeply-sloped areas, floodplains and riparian corridors should be discouraged, to minimize adverse impacts on these sensitive lands. From an energy conservation standpoint, commercial development should be encouraged through redevelopment of existing commercial areas near the I-5 / Highway 214 Interchange, to minimize vehicle miles traveled. Residential development should be encouraged in areas that abut the existing UGB and which can rely on gravity-flow sewer collection rather than energy-consuming sanitary sewer pump stations.

To address Boundary Location Provision 3, the Council described the ESEE consequences of expansion of industrial or residential uses in each Study Area, described why each Study Area would be suitable or unsuitable for the proposed UGB expansion, then summarized the findings for each ESEE category.

Study Area 1 (Northwest)

Study Area 1 is located northwest of the current UGB. This site is bounded to the east by Interstate 5 and the UGB, to the west by Oregon Electric Railway, to the south by Highway 214 (Newberg Hwy.), and to the north by a section line approximately 1,000 feet north of and parallel to Crosby Road.

A 155-acre residential exception area (Butteville Road Exception Area) comprising the southwestern portion of Study Area 1 is included in the 2005 UGB for residential use. The Council included this area primarily to ensure compliance with ORS 197.298(1), which requires that exception areas be included before agricultural lands. The Council did not include the remainder (agricultural land portion) of this Study Area within the 2005 UGB.

The Butteville Road Exception Area is bounded on the west by Oregon Electric Railway and on the south by Highway 214. These public rights-of-way effectively separate and buffer existing rural residential development in the Butteville Road Exception Area from nearby agricultural land. Although there is no natural buffer at the northeast corner of the Butteville Road Exception Area, rural residential land uses have co-existed with farming activities in this area for many years. In any case, ORS 197.298(1) requires inclusion of this land in the UGB because it has higher priority than agricultural land.

For reasons stated below, the Council did not include the agricultural land portion of Study Area 1 within the 2005 Woodburn UGB.

Economic Consequences

Inclusion of land within Study Area 1 for employment uses was not desirable (negative economic consequence) for two reasons. First, lot sizes generally are not large enough to meet industrial siting needs. Study Area 1 is cut up into relatively small parcels – an average parcel size of under 9 acres in agricultural lands and under 2 acres in the exception area. Industrial areas require large sites that do not border residential areas and can be clustered together to create an industrial sanctuary. There are a few parcels over 20 acres in size, but these are interspersed with the smaller parcels, and divided from each other by riparian corridors. Woodburn's greatest industrial land need is for large parcels, preferably close to each other so the area can be effectively master-planned and so that residential conflicts can be minimized. Study Area 1 is not optimal for this.

Second, as stated earlier in this Report, Woodburn intends to meet its commercial land needs within existing commercial areas – through intensification and redevelopment, or in small, neighborhood-oriented commercial areas. Study Area 1 is adjacent to the outlet mall, a regional commercial center and Interstate 5, which makes it less desirable for residential uses and associated neighborhood commercial.

Study Area 1 also includes some Class I agricultural soils in the northern portion of the Study Area. Several parcels are intensively for hop and berry farming. Development of this best quality farmland for urban uses would have an adverse economic consequence on the agricultural industry. However, bringing the Butteville Road Exception Area into the UGB would minimize the use of high value farmland to serve residential needs, providing a positive economic benefit to agriculture.

Social Consequences

The proximity of Study Area 1 to the outlet mall and Interstate 5 give it negative social consequences as a residential area due to noise and exhaust pollution from traffic. Study Area 1 is also undesirable for residential uses because it is separated by I-5 from other neighborhoods in the Woodburn community. As with the City of North Plains, Woodburn does not want to have I-5, which is a formidable barrier, splitting its residential community. However, infill development of the Butteville Road Exception Area is likely to provide more affordable housing opportunities, which has a positive social consequence.

Environmental Consequences

Study Area 1 is divided north to south by a riparian corridor. Development of land near this area for residential or employment uses would have negative environmental consequences on the riparian area, due to increased disturbance and urban run-off.

Energy Consequences

Study Area 1 is fairly efficient to serve with sewer, water, and storm drainage facilities, as described under Boundary Location Factor 2 above. However, increased development in the agricultural land portion of this Study Area would likely increase traffic through the busy outlet mall area to reach the Interstate 5 interchange. This likely increase in traffic congestion has negative energy consequences.³⁵

Due to environmental constraints, efficiency of urban land use in Study Area 1 would be decreased. Moreover, since Study Area 1 contains a relatively lower proportion of buildable land, per unit service costs would be greater.

Study Area 2 (North)

Study Area 2 is located to the north of the existing UGB. This area is bounded to the west by Interstate 5, to the east by Union Pacific Railway and N. Front Street, to the south by the 2002 UGB, and to the north by a line approximately 1,000 feet north of and parallel to Crosby Road.

The expanded 2005 UGB includes the portion of Study Area 2 bounded by Interstate 5 to the west, Crosby Road to the north, Boones Ferry Road to the northeast, and developed golf course links and orchard land (extending approximately 100 feet east of a required emergency access road) to the southeast. The original proposal was to include the entire

³⁵ The residential exception area included in the 2005 UGB is located to the west of the outlet mall, so traffic will flow around the outlet mall area and avoid the negative energy consequence.

golf course in the UGB. However, based on testimony received during the Council's review of the UGB amendment, the Council determined that the eastern portion of the golf course / Filbert orchard is comprised primarily of Class I agricultural soils. Therefore, the Council decided to exclude the Class I and II agricultural soils more than 100 feet east of the emergency access road.

There are two major land uses in this Study Area. The western portion, west of Boones Ferry Road, is used for grass seed and grain farming, while the eastern portion, east of Boones Ferry Road, is primarily a developed golf course that straddles the northern boundary of the Woodburn UGB. The Class I soils in this Study Area are all within the golf course / Filbert orchard area. The area included with the 2005 UGB is south of Crosby Road, including the western portion of the golf course / Filbert orchard area (about 15 net buildable acres), and about 160 gross acres of large parcels, currently used for grass seed and grain farming, west of Boones Ferry Road.

Approximately 150 net buildable acres of Study Area 2 are included into the 2005 UGB for residential use, and 2 acres are included as neighborhood commercial. This portion of Study Area 2 was chosen for residential expansion because it is relatively efficient to serve with gravity sanitary and storm sewer, has relatively few environmental constraints, and is adjacent to existing residential development. Crosby Road, Boones Ferry Road and I-5 provide good buffers to adjacent agricultural lands.

Economic Consequences

Study Area 2 is less suitable to meet identified industrial needs due to its distance from the Interstate 5 Interchange, the need to route traffic through the Butteville Road Rural Residential Area, and the proximity of this area to developed residential areas. This area is well-suited for moderate cost housing west of Boones Ferry Road. Land to the east of Boones Ferry Road adjacent to the golf course is especially well-suited for higher-end residential development, which will meet a specific housing need that cannot be met elsewhere within the UGB.

The small neighborhood commercial node (two acres) located along Boones Ferry Road will provide commercial opportunities for future residents in this area, thus reducing transportation costs.

Study Area 2 contains a significant amount of high value farmland, so there would be negative consequences to the farming economy if the entire Study Area were developed. However, the adopted UGB expansion area limits conflicts with remaining productive farmland to the north, because urban land is now bordered by Interstate 5 to the west, Crosby Road to the north, the golf course to the east, and Woodburn's 2002 UGB to the south.

Social Consequences

As noted in public testimony from the Serres family, the proximity of the western portion of Study Area 2 to Interstate 5 gives it negative social consequences as a residential area, due to noise and exhaust pollution from traffic. However, these impacts can be buffered with walls and landscaping. The proposed residential expansion into Study

Area 2 provides positive social consequences in two ways. First, it is near an existing residential area and golf course, providing positive social amenities and avoiding negative consequences associated with location adjacent to industrial or active farmland. Second, as noted under economic consequences, expansion into this Study Area east of Boones Ferry Road provides Woodburn a location to site upscale homes and meet housing needs for higher income families.

Environmental Consequences

The western part of Study Area 2 contains some small wetland areas that will be protected by the RCWOD. Residential development around these areas constitutes a serious negative environmental consequence; however, most of the natural areas in Study Area 2 are within or associated with the developed golf course, so there is unlikely to be further negative environmental consequences. A natural drainageway is located along the northern boundary of the golf course and will not be impacted by the proposed UGB expansion.

Energy Consequences

Study Area 2 feeds into Boones Ferry Road, which leads directly to Woodburn's downtown core shopping and dining opportunities – a positive energy consequence for residential development. Study Area 2 can be efficiently served by gravity flow sanitary and storm sewer, and would continue a relatively compact urban form, which are also positive energy consequences of the proposed expansion in this area. Energy consumption will be reduced by the proposed neighborhood commercial nodal development. By placing the neighborhood commercial node next to higher density residential, reliance on automobiles for shopping and services will be reduced in favor of bicycle and foot travel. This will have positive energy consequences.

Study Area 3 (Northeast)

Study Area 3 is located on the northeast border of the 2002 UGB. This area is bounded to the west by Union Pacific Railway and the UGB, to the east by the eastern edge of the MacLaren School for Boys, to the north by Dimmick Road NE, and to the south by Highway 211 (Estacada Highway).

The adopted 2005 UGB in SA-3 is the boundary of an existing manufactured dwelling park – in a small rural residential exception area.

Land uses in Study Area 3 are mixed – some farming on EFU land, two developed residential areas with rural residential exceptions, and the MacLaren Youth Correctional Facility. The only land in Study Area included in the 2005 UGB is a rural residential exception area adjacent to the existing UGB, that is developed as a manufactured dwelling park and is owned by a member of FAN. This land was included to ensure compliance with ORS 197.298(1) priority requirements that exception lands be included before farmland.

1000 Friends and FAN members objected to including the Northeast Rural Residential exception area served by Carl Road within the UGB because it has no remaining development capacity. They also argue that inclusion of the existing, developed

manufactured dwelling park within the UGB "would be a significant unbuffered intrusion into surrounding agricultural land."

The reason the Council included the manufactured dwelling park within the UGB is to allow for the possibility that urban services may eventually be required to serve the park for public health reasons, or to facilitate redevelopment of the site for another urban residential use. The park residents benefit from proximity to the City and do not pay for urban services. Should the park's sewer or water systems fail in the future, it is likely that the owner would come to the City and request urban services. Under Goal 11, this can only happen as a result of a health hazard annexation or a UGB amendment. Thus, the Council finds that inclusion of the Northeast Rural Residential exception areas meets both (a) a livability need for existing and future residents of the park, and (b) an urban efficiency need, to ensure efficient provision of urban services should such be required in the future.

The notion that inclusion of a developed manufactured dwelling park into the UGB would be a "significant unbuffered intrusion into surrounding agricultural land" is unfounded. The park and its "unbuffered impacts" already exist and would not be exacerbated by having access to urban services.

Economic Consequences

Study Area 3 does not meet the industrial siting needs, as it has fairly small parcel sizes and does not have good access to I-5. The economic value of industrial expansion in this Study Area would be minimal, since the City would be obligated to provide services to an area that is unlikely to meet the siting needs of targeted employers.

Study Area 3 is removed from residential neighborhoods within Woodburn, and is located near industrial and commercial areas, and a correctional facility. Though Study Area 3 can be provided efficiently with public services, its location makes it relatively less desirable for residential expansion. However, the Council included developed rural residential exception area in Study Area 3 within the 2005 UGB to ensure ORS 197.298(1) priorities are met.

Social Consequences

Study Area 3 is adjacent to commercial and industrial lands within the 2002 UGB, and includes a correctional facility, as described under Economic Consequences, which would make it less desirable for residential expansion from a social perspective. Study Area 3 is adjacent to Highway 99E. Noise and traffic impacts from Highway 99E could pose negative social consequences for residential development of this area. This could be balanced by the proximity of services provided by Highway 99E businesses. Development of the area for industrial or commercial uses would not cause adverse social consequences due to land use incompatibility; however, the land in this area does not meet identified siting requirements for targeted employers.

As noted above, inclusion of the existing manufactured dwelling park could have positive social consequences, should the park require urban services in the future.

Environmental Consequences

Study Area 3 contains substantial riparian areas near the 2002 UGB, so there would be negative environmental consequences from developing the area for employment or residential uses. The exception area included within the 2005 UGB is fully developed, so no additional negative environmental consequences are likely from the expansion.

As noted above, inclusion of the existing manufactured dwelling park could have positive environmental consequences, should the park's existing on-site systems fail, thus requiring sanitary sewer service in the future.

Energy Consequences

The energy consequences of development of Study Area 3 are relatively inconsequential. Traffic from Study Area 3 might access I-5 by traveling north along Highway 99E, and then west to I-5. Traffic might also travel through Woodburn, which already suffers from severe traffic congestion from traffic moving east to west. Further development of eastern Woodburn, including Study Area 3, therefore would have somewhat negative energy consequences resulting from potential increased traffic congestion at the I-5 Interchange.

Study Area 4 (East)

Study Area 4 is located east of the 2002 UGB. This site is bounded to the west by the 2002 UGB and Cooley Road, to the east by properties within 1/2 mile of the 2002 UGB (Pudding River plateau, reservoir), to the north by Highway 211 (Estacada Highway), and to the south by Highway 214.

Land Uses in Study Area 4 include farming on EFU land. The area is comprised almost entirely of Class II agricultural soils, except for unbuildable areas associated with riparian corridors. The Serres property is located in this Study Area. No land in Study Area 4 is included within the 2005 Woodburn UGB.

Economic Consequences

Study Area 4 has some sizable parcels, but its location and poor access to I-5 does not fit with industrial siting criteria. Development of this area for industrial use would have negative economic consequences for Woodburn, as this would not comply with Woodburn's EOA or Economic Development Strategy.

Woodburn's eastern 2002 UGB boundary adjacent to Study Area 4 contains a mix of larger-lot residential and commercial uses. As discussed under Boundary Location Factors 1 and 2 above, the east and southeast Study Areas are substantially more expensive to serve with public sewer and water facilities, which would create a negative economic consequence for Woodburn. In addition, expansion into Study Area 4 for residential uses would allow urban residential uses directly bordering high value farmland, which would have negative economic consequences for the farming economy.

However, as noted in the Serres testimony, inclusion of a portion of Study Area 4 would provide attractive land for residential development, although residential values might be tempered by the presence of strip commercial development along Highway 99E.

Social Consequences

Study Area 4 is adjacent to some residential areas, so expansion of residential uses in this area would not have adverse social consequences on existing residential uses inside the UGB. Study Area 4 is close to Highway 99E. Noise and traffic impacts from Highway 99E could pose negative social consequences for residential development of this area. This could be balanced by the proximity of services provided by Highway 99E businesses and by the presence of stream corridors that could be integrated into an attractive planned residential community.

However, the area is adjacent to farmland to the east and south. UGB expansion in this area would cause more adverse social consequences to both the new residential uses and farmers than proposed residential expansions in Study Areas 2 and 7. Despite the fact that Study Area 4 is accessed from Highway 99E, it appears that this area could be developed for higher end housing, based on testimony from the Serres family. According to testimony from the Serres family, an existing stream corridor in the eastern portion of Study Area 4 could provide an amenity for residential development, which would provide positive social consequences.

Environmental Consequences

Expansion of the UGB into Study Area 4 would have relatively minor adverse environmental consequences. There are a few water feature natural areas on the eastern edge of this Study Area that could be adversely affected by urban development, although these impacts could be mitigated by requiring effective stream buffers.

Energy Consequences

As with other Study Areas on the eastern side of Woodburn, expansion of the UGB in this area for employment or residential use would have negative energy consequences due to increased traffic congestion and overloading the Interchange from the east. The Council recognizes that potential residents may choose to access I-5 by heading north or south along Highway 99E, and then heading west to the Freeway. However, many residents will also use Highway 214 to access I-5, which would increase congestion at this interchange. Moreover, residential development east of Highway 99E is unlikely to help fund needed construction of the South Arterial.

Study Area 5 (Southeast)

Study Area 5 is located to the southeast of the 2002 UGB. This site is bounded to the west by Highway 99E (Pacific Hwy) and the UGB, to the east by properties within 1/2 mile of the UGB (Pudding River plateau), to the north by Highway 214, and to the south by Geschwill Lane NE.

Land uses in Study Area 5 are overwhelmingly farming. There is a 1-acre exception area at the southwestern edge of the Study Area, not adjacent to the existing UGB that is developed for residential uses. The area is comprised almost entirely of Class II agricultural soils, except for unbuildable areas associated with riparian corridors. None of Study Area 5 is included within the 2005 Woodburn UGB.

Economic Consequences

Study Area 5 contains some large parcels, but these parcels do not fulfill locational requirements for industrial siting needs. The economic consequences of providing industrial land that does not meet siting needs are negative, as Woodburn would have a lower supply of desirable industrial land.

Study Area 5 is separated from Woodburn's residential neighborhoods by an industrial area. Though it is efficient to serve with public facilities, it still would have relatively negative economic consequences if included within the UGB for residential use.

Social Consequences

Study Area 5 is adjacent to existing commercial and industrial areas, so it would not have negative social consequences if Woodburn were to designate additional industrial land here.

Since this area is not adjacent to an existing residential neighborhood, but is adjacent to Highway 99E, as well as industrial and farm uses that typically conflict with residential uses, social consequences of a residential expansion in this Study Area would be highly negative.

Environmental Consequences

Study Area 5 contains some natural areas that would be negatively impacted by development. However, these natural areas are relatively small and near the outer edges of the Study Area. Environmental consequences of expansion into this area would be relatively small.

Energy Consequences

Expansion into Study Area 5 for residential or employment uses would add to the amount of traffic from eastern Woodburn to the I-5 Interchange, without providing any remedy. This would increase congestion and decrease transportation efficiency, which would be a negative energy consequence.

Study Area 6 (South)

Study Area 6 is located to the south of the southeastern portion of the current UGB. This area is bounded to the east by Highway 99E (Pacific Hwy), to the west by Southern Pacific Railroad, to the north by the UGB, and to the south by Belle Passe Road.

Land uses in Study Area 6 are primarily farming, with some commercial and residential exception land along the western side of Highway 99E, extending south from the existing Woodburn UGB. To satisfy the priorities of ORS 197.298(1), these residential and commercial exception areas, totaling 36 acres, are included within the 2005 UGB. No other land in Study Area 6 is included.

Economic Consequences

As discussed under Boundary Location Factor 2 above, Study Area 6 is the second most expensive study area to provide with sewer, water, and drainage services. Expansion

into this Study Area has negative economic consequences for Woodburn and its taxpayers, as this would be an inefficient use of public funds.

Study Area 6 does not fulfill siting requirements as well as property closer to the I-5 Interchange, so is less suitable for industrial expansion. Expanding the UGB in this area for industrial uses would have negative economic consequences, as Woodburn's industrial land supply would be locked into a less-than-optimal location.

Including Study Area 6 in the 1005 Woodburn UGB would have negative economic consequences on local farming interests as residential expansion would push residential uses past the existing natural buffer (stream and wetland areas) along the southern UGB and place them adjacent to active farms.

Social Consequences

Development of Study Area 6 for industrial uses would also have negative social consequences, as this would place new industrial lands next to an existing residential area.

Since this area is adjacent to existing residential lands, potential conflicts due to including this area in the UGB for residential use would be reduced, which would have positive social consequences for existing and future neighborhoods. However, natural (streams) and artificial (roads) buffers from agricultural land are less available to this area than Study Area 2. The eastern portion of Study Area 6 is adjacent to Highway 99E. Noise and traffic impacts from Highway 99E could pose negative social consequences for residential development of this area. This could be balanced by the proximity of services provided by Highway 99E businesses.

Environmental Consequences

This Study Area contains a few streams and wetland areas adjacent to the 2002 UGB, as shown on the Natural Features Inventory Map. Expansion of the UGB and associated development of this area would likely have negative environmental impacts on these areas.

Energy Consequences

Study Area 6 adjoins the southernmost point of the 2002 UGB. Expansion further south into this Study Area would likely have a negative energy consequence as it would not provide a compact urban form.

Study Area 7 (Southwest)

Study Area 7 is located to the south and southwest of the southwestern edge of the 2002 UGB. This area is bounded to the east by Southern Pacific Railroad, to the west by Interstate 5, to the north by the 2002 UGB, and to the south by property lines.

Existing land uses in Study Area 7 are grass seed and grain farming. Major portions of Study Area 7 are included as part of a neighborhood commercial nodal development area (8 net buildable acres), a residential area (119 net buildable acres), and an industrial reserve area (252 net buildable acres).

A new southern arterial is proposed close to the southern border of the proposed expansion area that will link Butteville Road to Highway 99E. This arterial would provide an alternative route to the I-5 Interchange for the proposed industrial uses and would reduce congestion along Highway 214.

Economic Consequences

Study Area 7 has the requisite parcel sizes, access, and location to meet industrial siting needs. Providing industrial lands consistent with Woodburn's Economic Opportunities Analysis (EOA), and Economic Development Strategy would provide a positive economic consequence.

Study Area 7 can be efficiently provided with public facilities and is adjacent to the largest area of undeveloped residential land in Woodburn. This makes it a prime location for master-planned nodal development. Economic consequences of expansion into Study Area 7 for residential uses and special mixed-use needs are also positive.

In addition, Study Area 7 has a large area of buildable Class III soils near the 2002 UGB, as shown on the Natural Features Map. Expansion into this area would use lower quality soils and save higher quality farmlands. This is a positive economic consequence.

Social Consequences

Designated industrial reserve areas in Study Area 7 are buffered from low density residential uses by medium density residential zoning. In addition, the industrial land serves as a buffer between farmland and residential uses. Industrial expansion in this location is preferable to most other Study Areas from a social perspective, so has a positive social consequence.

The vast majority of Woodburn's vacant residential land inside the 2002 UGB is to the southwest of Woodburn's city limits, adjacent to Study Areas 7. Creation of a master-planned neighborhood in this location would have positive social consequences, as it would be near park and school lands on what is the southern boundary of the 2002 UGB and provide an urban neighborhood.

Marion County Growth Management Framework policies encourage buffers between communities because the County views separation between UGBs as having a positive social consequence. The city of Gervais is located to the south. For this reason, and to maintain a buffer between agricultural and urban uses, the Council has not proposed placement of housing adjacent to additional industrial land on the south side of the South Arterial.

Environmental Consequences

Unlike many other Study Areas, Study Area 7 has no significant environmental constraints to development, which means that expansion into this area will have minimal negative environmental consequences.

Energy Consequences

Development of the expanded 2005 UGB for residential, neighborhood commercial, and industrial uses will finance a new arterial road near the southern edge of the UGB expansion area. This arterial will improve traffic circulation for the City, remove some traffic congestion from the I-5 / Highway 214 Interchange, and provide a faster route to and from Interstate 5 for existing industrial and commercial uses in southeast Woodburn. This would be a very positive energy consequence.

Locating affordable housing opportunities near the nodal neighborhood commercial shopping and service center, and near planned job opportunities, energy consumption will be reduced, resulting in positive energy consequences.

Study Area 8 (West)

Study Area 8 is located to the west of the 2002 UGB. This site is bounded to the east by Interstate 5 and the UGB, to the west by Oregon Electric Railway, to the north by Highway 214 (Newberg Highway (Hwy. 211-214)), and to the south by property south of Parr Road NE.

Approximately 130 acres of Study Area 8, located between the existing UGB, I-5, Butteville Road and Highway 214, are included in the 2005 Woodburn UGB to meet industrial siting needs. Expansion within this Study Area provides land for a large industrial park site as part of the SWIR

Economic Consequences

The expansion within Study Area 8 best meets the industrial siting criteria. Providing industrial sites that are consistent with Woodburn's EOA and EDS will have highly positive economic consequences.

Study Area 8 is on the west side of I-5, adjacent to industrial development within the 2002 UGB, and in a prime location for industrial use. If it were developed for residential use, Woodburn would exchange great industrial land for an isolated residential area. This would have negative economic consequences.

In addition, industrial uses are more compatible with the farmlands on the other side of Butteville Road than residential uses would be. Expansion of the UGB for industrial use has much more positive economic consequences in this respect than expansion for residential uses.

Social Consequences

Study Area 8 is adjacent to an existing industrial area and meets industrial siting criteria. The industrial expansion has no negative social consequences. Study Area 8 is not adjacent to existing residential uses and is inappropriate for residential uses. If this area were developed for residential use, the resulting residential area would be isolated and adjacent to both farmland and an industrial area. This would have highly negative social consequences.

Environmental Consequences

Study Area 8 includes some riparian and wetland areas at the north end of the expansion area. However, potential adverse impacts from development will be mitigated by (a) RCWOD water and riparian corridor protection measures, and (b) master planning requirements.

Energy Consequences

Development of Study Area 8 will help provide transportation facilities by funding planned TSP improvements along Butteville Road. The improvements to Butteville Road will relieve congestion at the I-5 / Highway 214 Interchange and connect with the planned Southern Arterial, to provide a faster and more efficient transportation route for residents and businesses in southern Woodburn. Expansion in this Study Area would have positive energy consequences.

Economic Conclusions

The Industrial siting needs described under Employment Land Needs in Part I of this Report specify location near and with ready access to I-5. They also specify large parcel sizes. Only study areas 7 and 8 (Southwest and West) contain appropriately sized parcels with good access to I-5. Inclusion of the southern portion of Study Area 7, which is comprised largely of Class III agricultural soils and is farmed for grains and grass seed (rather than more intensive farming uses, such as berries and hops), will have relatively less impact on Marion County's agricultural economy than inclusion of more intensively farmed areas with Class I and II soils in Study Areas 1 and 4.

As noted in the Residential Land Needs section in Part I of this Report, Woodburn needs additional residential land to meet Year 2020 housing needs. The critical economic factors in determining in which direction(s) to expand for residential use were (a) agricultural soil capability, (b) the private cost of development, (c) the public cost of providing public facilities and services, and (d) suitable locations for both affordable and higher-end housing.

Woodburn rejection inclusion of large concentrations of Class I soils, primarily because of the economic value associated with such "high value farmland" in Marion County. Since Woodburn desires to provide affordable housing opportunities, it was essential, from an economic perspective, to provide land upon which affordable housing can be constructed: i.e., relatively flat land with direct access to public facilities and services. Another economic concern for residential lands is location near other residential lands – a residential area adjacent only to industrial is not as desirable due to noise/smell impacts as well as lack of a community, for example. Study Areas 2, 4, 6, and 7 contained land that satisfied these residential criteria. Study Area 2 provides a unique opportunity for higher-end housing near an established golf course and will provide housing for higher income families with executive positions in future Woodburn firms.

Social Conclusions

In providing needed Industrial, Commercial, and Residential land, it is important to designate land use types in a compatible fashion, as well as to create a compact urban form, and to provide employment / shopping opportunities close to residences. The EOA, and the 2002 Marion County growth management study all recommended that needed

Industrial sites be located near existing industrial land along Butteville Road (at the western edge of town), to lessen the impacts on residential neighborhoods and to provide industrial sites with I-5 access.³⁶ The City concurs with these recommendations.

In addition, social consequences will be most positive if Woodburn locates Low Density Residential land next to existing single-family neighborhoods, and designates higher density residential land to serve as a transition area between Industrial / Commercial lands and Low Density Residential land. A small amount of neighborhood commercial land is located near residential expansion areas to serve local shopping needs.

There are three substantial industrial areas in Woodburn – in the northeast, southeast, and west – near study areas 3, 4, 5, 6, 7, and 8. From a Social perspective, any of these study areas would have been appropriate for Industrial. However, as described in Economic Consequences, only Study Areas 7 and 8, with direct access to I-5, meet Woodburn's Industrial site suitability needs.

For Residential lands, Study Areas 2, 4, 6, and 7 are adjacent to existing residential areas. The majority of Woodburn's vacant residential land inside the 2002 UGB is to the southwest of Woodburn's city limits, adjacent to study areas 6 and 7. Study area 2 is next to a developed residential neighborhood and golf course. Study area 4 is adjacent to larger-parcel residential areas. All of these areas would be reasonable for residential expansion from a Social perspective, although service costs are relatively high for Study Areas 4 and 6. However, Study Area 7 best provides for affordable housing opportunities near new employment areas, and Study Areas 2 and 4 best provide for higher-end housing opportunities.

Environmental Conclusions

All of the study areas contain some wetland or riparian areas. Woodburn limits development in identified natural resource areas by the RCWOD. Study Areas 1, 2, and 3 contain substantial floodplain, wetland, or riparian areas near the 2002 UGB, which might make them more difficult to develop from an Environmental perspective. However, most of the identified natural resources in Study Area 2 are within an existing golf course, and thus are less likely to be further adversely affected by new development.

Energy Conclusions

Woodburn considered energy consequences, as measured by (a) compact urban growth form and access to/distance from the City center, (b) minimization of vehicle trips, (c) impacts on congestion at the I-5 / Highway214 interchange, and (d) the need for sanitary sewer pump stations.

Study Area 8 is most favorable from an energy consequence standpoint as it provides the best access to I-5 for industrial uses. Study Areas 3, 4 and 5 are less favorable from an

³⁶ Even the 2000 McKeever-Morris study recommended inclusion of industrial land between I-5 and Butteville Road. Although the Council agrees with this particular conclusion, the McKeever-Morris study has been superceded by the Winterbrook land needs analysis and buildable lands inventory.

energy consequence standpoint because they are located on the east side of the City, and development of these areas would not facilitate east-west transit construction to ease traffic congestion. Inclusion of Study Area 1 (other than the Butteville Road Exception Area) would increase traffic congestion in the vicinity of the outlet mall. Inclusion of Study Area 6 would not promote a compact urban growth form.

Study Area 7 is unique because it provides buildable land immediately adjacent to the largest undeveloped area within the 2002 UGB. This is why this UGB expansion area was selected for master-planned nodal development. Substantial energy savings result from when higher density development is immediately accessible to neighborhood shopping facilities and jobs, as provided in the 2005 Woodburn Comprehensive Plan.

Summary

The 2005 UGB expansion locations in Study Areas 2, 7 and 8 provide generally positive ESEE consequences and are better suited to meet identified land needs than Study Areas to the east and southeast. New residential areas are adjacent to older residential areas and have the least impact on farmland, while industrial expansion areas best meet industrial siting criteria. The only expansion areas that are not optimal from an ESEE standpoint are the exception areas in Study Areas 1, 3 and 6. The 2005 UGB expansion includes these exception areas to comply with ORS 197.298(1) priorities, as described above.

Goal 14 Boundary Location Factor 4

(4) Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB.

The term "compatible" does not require that there be no interference with, or adverse impact of any kind on, adjacent uses, but rather that the uses be reasonably able to coexist.

Woodburn is surrounded on all sides by farmland, with relatively few exception areas. Except for the MacLaren Youth Correctional Facility, all exception areas adjacent to Woodburn's UGB are included in the 2005 UGB.

Soil Type and Agricultural Productivity by Study Area

This analysis of agricultural suitability identifies the types of soil present in each Study Area and describes crops typically grown on these soil types as shown in the Soil Survey of Marion County Area (US Department of Agriculture, 1972). As explained in text following Table 18, all of the study areas contain some soil types suitable for grass, pasture, and cereal grains. Some Class I-III soils are additionally suitable for vegetables, hops and berries; the Class III soils must be irrigated.

Table 18. Soil Types and Study Areas

Map Unit Name	Map Symbol	Capability unit	High value farmland	Study Areas
AMITY SILT LOAM	Am	IIw-2	Yes	1-8
BASHAW CLAY	Ba	IVw-2	Yes	2, 6
CONCORD SILT LOAM	Co	IIIw-2	Yes	1-5, 7-8
DAYTON SILT LOAM	Da	IVw-1	Yes	1-3, 5-8
LABISH SILTY CLAY LOAM	La	IIIw-2	No	2, 3
TERRACE ESCARPMENTS	Te	IVe-2	No	2, 4, 5
WILLAMETTE SILT LOAM, 0 TO 3 PERCENT SLOPES	W1A	I-1	Yes	2, 3, 8
WOODBURN SILT LOAM	WuA, WuC, WuD	IIw-1, IIe-1, IIIe-1	Yes	1-6, 8

Source: Marion County GIS and USGS

Amity Series. The Amity series consists of somewhat poorly drained soils that have formed in mixed alluvial silts. These soils have slopes of 0 to 2 percent. They occur on broad valley terraces at elevations of 150 to 350 feet. The average annual precipitation is between 40 and 45 inches. The average annual air temperature is 52° to 54° F., and the length of the frost-free season is 190 to 210 days. In areas that are not cultivated, the vegetation is mainly grasses, shrubs, hardwoods, and scattered Douglas firs. Amity soils are associated with Dayton and Concord soils. In a typical profile, the surface layer is very dark grayish-brown silt loam that is mottled in the lower part and is about 17 inches thick. The subsurface layer is mottled dark-gray silt loam about 7 inches thick. The subsoil is a substratum of mottled olive-brown silt loam underlies the subsoil. **The Amity soils are used mainly for cereal grains, grass grown for seed, and pasture. When irrigated, areas that are drained can be used for all the crops commonly grown in the survey area. Amity soils are found in all Study Areas.**

Bashaw Series. The Bashaw series consists of poorly drained and very poorly drained soils that have formed in alluvium. These soils are in backwater areas of the flood plains and in drainage channels of silty alluvial terraces. They have slopes of 0 to 1 percent. Elevations range from 100 to 400 feet. The average annual precipitation is between 40 and 45 inches, the average annual air temperature is 52° to 54° F., and the length of the frost-free season is 200 to 210 days. In areas that are not cultivated, the vegetation is mainly annual and perennial grasses, wild blackberries, sedges, rushes, willows, and a few ash and oak trees. Bashaw soils are associated with Wapato soils. In a typical profile, the surface layer is about 31 inches thick and consists of mottled very dark gray clay in the uppermost 3 inches and of mottled black clay below. The upper part of the substratum, just beneath the surface layer, is very dark gray clay that extends to a depth of 48 inches. The lower part of the substratum is dark grayish-brown clay or sandy clay that extends to a depth of 60 inches or more. The substratum is mottled throughout. **The Bashaw soils are used mainly for pasture. Bashaw soils are found in Study Areas 2 and 6, underlying riparian portions of each Study Area.**

Concord Series. The Concord series consists of poorly drained soils that have formed in alluvium of mixed mineralogy. These soils are on broad valley terraces, in slightly concave depressions and in drainageways. They have slopes of 0 to 2 percent. Elevations range from 125 to 350 feet. The average annual precipitation is 40 to 45 inches, the average annual air temperature is 52° to 54° F., and the length of the frost-free season is 200 to 210 days. In areas that are not cultivated, the vegetation is mainly rushes, sedges, wild blackberry, hazel, annual grasses, and ash trees. Concord soils are associated with Amity and Dayton soils. In a typical profile, the surface layer is very dark grayish-brown silt loam about 6 inches thick. The subsurface layer is mottled dark-gray silt loam about 9 inches thick. Just below the subsurface layer is a layer of mottled gray and dark-gray silty clay about 4 inches thick. The subsoil is about 10 inches thick. It consists of mottled grayish-brown silty clay in the upper part and of mottled dark grayish-brown silty clay in the lower part. The substratum of mottled dark grayish-brown silt loam extends to a depth of 60 inches or more. **Concord soils that are neither drained nor irrigated are used mainly for cereal grains, pasture, hay, and grass grown for seed. When irrigated, the drained areas are used mainly for berries and vegetables. Concord soils are found in Study Areas 1, 2, 3, 4, 5, 7, and 8.**

Dayton Series. The Dayton series consists of soils that are poorly drained. These soils have formed mainly in old mixed alluvium, but their upper layers may have been influenced, to some extent, by loess. The soils are on broad valley terraces, and they occur in drainageways and in shallow depressions. Slopes range from 0 to 2 percent, and elevations range from 125 to 350 feet. The average annual precipitation is 40 to 45 inches, the average annual air temperature is 52° to 54° F., and the length of the frost-free season is 190 to 210 days. In areas that are not cultivated, the vegetation is mainly annual and perennial grasses, wild rose, and scattered ash trees. Dayton soils are associated with Amity and Concord soils. In a typical profile, the surface layer is very dark grayish-brown silt loam about 7 inches thick. The subsurface layer is mottled dark-gray silt loam about 6 inches thick. The subsoil is mottled and consists of a layer of clay about 33 inches thick. It is dark gray in the upper part and is grayish brown in the lower part. The substratum is mottled grayish-brown silty clay loam that extends to a depth of 60 inches or more. **The Dayton soils are used mainly for small grains, pasture, hay, and grass grown for seed. Dayton Soils are found in Study Areas 1, 2, 3, 5, 6, 7, and 8.**

Labish Series. The Labish series consists of poorly drained soils that have formed in mixed mineral and organic material. These soils have slopes of 0 to 1 percent. They occur on the bottoms of former shallow lakes at elevations of 150 to 175 feet. The average annual precipitation is between 40 and 45 inches, the average annual air temperature is 53° F., and the length of the frost-free season is 200 to 210 days. In areas that are not cultivated, the vegetation is mainly sedges, tussocks, and willows. Labish soils are associated with Semiahmoo soils. In a typical profile the surface layer is black and is about 7 inches thick. It consists of silty clay loam in the upper part and of silty clay in the lower part. The next layer is very dark brown silty clay about 9 inches thick. Below this is very dark gray clay that extends to a depth of 60 inches or more. **The Labish soils are used mainly for onions, small grains, pasture, and hay.**

Labish soils are found primarily in Study Area 2, with a small inclusion in Study Area 3.

Terrace Escarpments. Terrace escarpments (Te) consists of gravelly and silty alluvium that is too variable in characteristics to be classified as soil. It is moderately steep or steep and occurs along the sidewalls of the major streams, on terrace scarps, and on the side slopes bordering channels of intermittent streams. The vegetation is mainly Douglas fir, maple, hazel, swordfern, brackenfern, poison-oak, tussock, sedges, and grasses. This land type is suitable for pasture and for use as woodland. **The short, steep slopes make tillage impracticable. Unbuildable terrace escarpments are found in Study Areas 2, 4, and 5.**

Willamette Series. The Willamette series consists of deep, well-drained soils that have formed in silty alluvium. These soils are on low, broad valley terraces. They have slopes of 0 to 12 percent. Elevations range from 150 to 350 feet. The average annual precipitation is 40 to 45 inches, the average annual air temperature is 50° to 54° F., and the length of the frost-free season is 200 to 210 days. In areas that are not cultivated, the vegetation is mainly oatgrass and other native grasses, hazel, blackberry, Oregon white oak, and Douglas fir. Willamette soils are associated with Woodburn soils. In a typical profile, the surface layer is very dark grayish-brown silt loam about 12 inches thick. A subsurface layer that also consists of very dark grayish-brown silt loam and that is about 5 inches thick is just beneath the surface layer. The upper part of the subsoil is dark-brown silt loam about 7 inches thick; the middle part of the subsoil is dark-brown silty clay loam about 14 inches thick; and the lower part is dark-brown silt loam about 16 inches thick. A substratum of dark yellowish-brown silt loam underlies the subsoil, and it extends to a depth of 65 inches or more. **The Willamette soils are used mainly for small grains, pasture, hay, orchards, berries, and vegetables. Willamette soils are Class I soils around Woodburn and are found in Study Areas 2, 3, and 8.**

Woodburn Series. The Woodburn series consists of moderately well drained soils that have formed in silty alluvium and loess of mixed mineralogy. These soils are on broad valley terraces. They have slopes of 0 to 20 percent. Elevations range from 150 to 350 feet. The average annual precipitation is 40 to 45 inches, the average annual air temperature is 52° to 54° F., and the length of the frost-free season is 200 to 210 days. In areas that are not cultivated, the vegetation is mainly grass and Douglas fir. Woodburn soils are associated with Willamette soils. In a typical profile, the surface layer is about 17 inches thick and is very dark brown silt loam in the upper part and dark-brown silt loam in the lower part. The subsoil is about 37 inches thick. It is dark yellowish-brown silty clay loam in the upper part; mottled dark-brown silty clay loam in the middle part; and mottled, dark-brown silt loam in the lower part. The substratum is dark-brown silt loam that extends to a depth of 68 inches or more. **The Woodburn soils are used mainly for small grains, pasture, hay, orchards, berries, and vegetables. Woodburn soils range from Class II to IV and are the predominant soil type in all Study Areas except Study Area 7, which includes substantial portions of Amity and Concord soils.**

Farm Land Compatibility

The greatest concern for compatibility with agricultural uses is residential expansion – because residential uses have the greatest potential for conflicts with agricultural practices due to vandalism, roaming pets, and residents' sensitivity to dust, odors and chemicals commonly used in agriculture. Every Study Area contains high value Class I-III agricultural soils. The Council's goal has been to minimize points of conflict between new residential designations and high value farmland.

Marion County, Department of Land Conservation and Development (DLCD) and Department of Agriculture (DOA) staff have suggested using road rights-of-way as buffers where feasible, to minimize conflicts with agricultural operations. The Council took this advice seriously and has used public rights-of-way, existing exception areas and stream corridors as buffers wherever feasible. Thus, the 2005 Woodburn UGB includes natural (stream corridors) or artificial (road rights-of-way) buffers between residential and agricultural land in most circumstances.

The 2005 Woodburn UGB further minimizes conflicts between residential land uses and agricultural lands by (a) expanding the UGB to include existing exception areas, where conflicts already exist, and (b) placing industrial (rather than residential) land uses next to agricultural lands, because industrial uses are more compatible with agricultural practices than residential uses.

Most of Woodburn's residential development is expected to occur in the southwest portion of the expanded 2005 UGB. To minimize impacts from residential development near agricultural lands, the 2005 UGB incorporates large public rights-of-way as boundaries: lands included within Study Area 7 for residential use are buffered from agricultural lands by the South Arterial as well as the Southwest Industrial Reserve (SWIR).

To meet additional residential land needs, Woodburn expanded the UGB north from a generally unbuffered, developed residential neighborhood and golf course into Study Area 2. This expansion includes a portion of the golf course located outside the 2002 UGB, west of a proposed emergency access road, and undeveloped agricultural land. The 2005 UGB is bordered by I-5 to the west, a developed golf course and Boones Ferry Road to the east, and Crosby Road (a planned service collector street) to the north. Only two segments of the expanded 2005 UGB on the east side of Boones Ferry Road directly abut farmland, comprised of an existing, poorly maintained orchard interspersed among existing golf course links. This is similar in effect to the housing development adjacent to farmland that exists now on the border of the 2002 UGB, but is confined to smaller areas.

As noted above, industrial land uses have operational characteristics that are more compatible with farmland than residential uses. Industrial uses typically create noise, dust and odors, as do agricultural uses. Industrial uses are less sensitive to nearby agricultural uses than residential uses, because families with children and pets typically are not present in the workplace. Moreover, most industrial uses planned for the Southwest Industrial Reserve (SWIR) will occur mostly indoors, and thus will not be as susceptible to dust, pesticides, fungicides, and noise from nearby grass seed and wheat operations. Prior to amendment of the UGB in 2005, existing industrial lands on the western border of the 2002

UGB were not buffered from agricultural land at all. The 2005 UGB expansion reduces conflicts between farmland and industrial uses by increasing road right-of-way buffers, as recommended by Marion County, DLCD and DOA staff.

Industrial uses in Study Area 8 are separated from farmland by Butteville Road to the west. A proposed new southern arterial provides a buffer for most of the industrial land in Study Area 7. The only industrial expansion area that will be adjacent to farmland without a road right-of-way buffer is one parcel in Study Area 7, south of the proposed southern arterial. This parcel was included in the 2005 UGB for two reasons: first, because it has predominantly higher-priority Class III agricultural soils, and second, to meet industrial siting needs. This parcel cannot be further divided without a master plan, and will only develop if Woodburn attracts large industrial firms to the area. The impact of this southwestern parcel on farmland will be similar to the existing industrial-farmland interface in the area.

Adopted 2005 expansion areas include buffering between residential and industrial uses and farmland that does not exist within the 2002 UGB. The pre-2005 UGB contains residential land adjacent to farmland with no buffering along much of its northern and eastern borders. With the 2005 expansions, there is no more impact on agricultural lands than now exists under the acknowledged UGB. This point is documented by Table 19 below.

The 2005 UGB maintains about 35,300 linear feet (6.7 miles) of the "old" 2002 UGB. Conflicts with agricultural land will not increase along this common boundary. Although much of the 2002 UGB has natural buffers, such as protected stream corridors, many segments have unbuffered residential, commercial or industrial land uses directly abutting agricultural land.

However, unlike the 2002 UGB, adopted expansion areas have almost no areas with an unbuffered boundary between new residential and agricultural land. Approximately 41,400 linear feet (7.8 miles) of the expanded 2005 UGB is buffered by existing residential exception areas, arterial street rights-of-way, the existing golf course or planned industrial areas.

There are only 300 linear feet along the borders of 2005 expansion areas (less than 1% of the linear distance of the expanded boundary) where new residential plan designations directly abut unbuffered farmland. Over 99% of the expanded 2005 UGB has public road rights-of-way, existing exception areas, industrial plan designations or the existing golf course *between* the planned residential land use and productive agricultural land. As noted above, the only place where new residential plan designations have an unbuffered border with agricultural land is in the North expansion area east of Boones Ferry Road.

Table 19: 2005 Urban Growth Boundary Agricultural Impacts Summary

Study Area	UGB Description	Distance (ft)
1 Northwest	Existing UGB	4900
	Butteville Road Exception Area	2000
	Butteville Road Exception Area and Railroad Track	4200
	Highway 214	2300
	I-5	4300
2 North	Crosby Road (Service Collector)	3400
	Existing UGB	5500
	Boones Ferry Road (Arterial)	900
	Golf Course	1300
	<i>Property Line (Unbuffered)</i>	<i>300</i>
3 Northeast	Developed Exception Area	2200
	Existing UGB	7400
4 East	Existing UGB	8000
5 Southeast	Existing UGB	6700
6 South	Exception Area	3700
	Exception Area and Hwy 99E	2500
	Existing UGB	2800
7 Southwest	Southern Arterial	3000
	SWIR (one 50-acre parcel)	4000
	SWIR and Butteville Road (Arterial)	2100
8 West	SWIR and Butteville Road (Arterial)	5500
2002 UGB	6.7 Miles	35,300 (46%)
Buffered Expansion Areas Total	7.8 Miles with Exceptions Areas, Golf Course, SWIR, or Arterial Street Right-of-Way	41,400 (54%)
Unbuffered Total	0.06 Miles where New Residential Plan Designation Abuts Agricultural Land	300 (0%)

Source: Winterbrook Planning

SUMMARY OF COMPREHENSIVE PLAN AND DEVELOPMENT CODE AMENDMENTS

The 2005 Plan and Code amendments include:

- Inclusion in the UGB of all commercial and residential "Exception" areas adjacent to the existing UGB, except the MacLaren Youth Correctional Facility area;
- Residential UGB expansion into the North and Southwest study areas;
- Industrial expansion into the West and Southwest study areas;
- Creation of the Parr Road Nodal Overlay area;
- Extension of the transportation system to support expansion areas; and
- Inclusion of land for new parks, schools, and an urban plaza to support residential growth.

Inclusion of Exception Areas

The 2005 Plan includes three exception areas – a developed residential exception area to the northeast along Highway 99E, a residential and commercial exception area to the southeast along Highway 99E, and a residential exception area to the northwest along Butteville Road. These exception areas are planned for approximately 13 net buildable acres of commercial land, 105 dwelling units on 7.5 net buildable acres of medium density residential land, and 295 dwelling units on 107 net buildable acres of low density residential land.

Residential Expansion

The 2005 Plan includes land to the north and southwest of the 2002 UGB to meet 2020 residential needs. Approximately 150 net buildable acres of residential land is included in the expansion to the north, between I-5 and Mill Creek. This expansion area includes some of the developed golf course, is designated as Single Family Residential (SFR), and is expected to meet both SFR needs as well as some park and school needs (see discussion under Public Uses below).

Residential expansion to the southwest includes approximately 68 net buildable acres of Nodal SFR land (RSN) and about 51 net buildable acres of Nodal Medium Density Residential (RMN) land. Much of the residential expansion in the southwest is within the Parr Road Nodal Overlay area (described under Parr Road Nodal Overlay Area below). Land further to the southwest was not included because it would not efficiently meet identified needs for employment or livable residential neighborhoods.

Commercial Expansion

The 2005 UGB adds 24 net buildable acres of Commercial land, either in Neighborhood Commercial nodes (11 acres) or within an existing commercial exception area along Highway 99E (13 acres).

Commercial expansion under the 2005 Plan will occur within the residential expansion areas to the north and southwest of the 2002 UGB and is expected to take the form of neighborhood-serving commercial development. In the north expansion area, the

commercial area is 2 acres adjacent to the golf course, on the east side of Boones Ferry Road.

In the southwestern expansion area, 9 acres of commercial land are located in the Parr Road Nodal Area, to the east of industrial lands and adjacent to the north, south, and west to MDR lands. The 2005 Plan Map shows this commercial area with the Nodal Development Overlay (described under Mixed Use Areas below), and adjacent to an urban plaza (described under Public Uses below).

Industrial Expansion

The 2005 Plan includes lands to the west and southwest of the 2002 UGB to meet 2020 industrial site needs (per discussion of Employment Land Needs in Part I of this Report). These lands are designated Southwest Industrial Reserve (SWIR), which reserve large parcels exclusively for targeted industrial needs, and require master planning prior to annexation and development. As described in Table 20, the SWIR area contains 6 major sites (including 17 defined sub-sites to meet targeted industrial needs) with a total buildable area of about 362 acres.

Table 20: SWIR Sites and Characteristics

Tax Lot Number(s)	Buildable Site Acres	Reserved Site Size Ranges	Estimated Site Sizes	Land Division Permitted?
52W11 TL 300 (Darma / OPUS)	88	25-50 10-25 10-25 5-10 5-10 2-5 2-5	35 15 15 8 8 4 3	Yes, with Master Plan approval
Subtotals:		59-130	88	
52W14 TL 200 52W14 TL 600 (Weisz)	22	10-25 5-10	15 7	No
Subtotals:		15-35	22	
West of I-5 Sites	110	74-165	110	See above
52W13 TL 1100 52W14 TL 1500 52W14 TL 1600 (Seibel, Gottsacker, Weisz)	96	96	96	No, ROW dedication for Southern Arterial and Evergreen Reserved for Firm ≥ 300 employees
52W14 TL 800 52W14 TL 900 52W14 TL 1000 52W14 TL 1100 (Weisz)	106	50-100 25-50 2-5 2-5	65 33 4 4	Yes, with Master Plan approval; ROW dedication required 50-100 Acre site reserved for Firm ≥ 200 employees.
Subtotals:		79-160	106	
52W14 TL 1200	4	2-5	4	See above
52W23 TL 100 (Weisz)	46	25-50 5-10 2-5	35 8 3	Yes, with Master Plan approval
Subtotals:		32-65	46	
East of I-5 Sites	252	209-326	252	No
Total SWIR	362	283-491	362	

Source: Winterbrook Planning and City of Woodburn

Parr Road Nodal Overlay Area

The bulk of Woodburn’s vacant residential land supply is in the southwest portion of the 2002 UGB. As this land is not yet developed, it provides an opportunity to combine large tracts of vacant land within the 2002 UGB with land to the north of the planned Southern Arterial, to create a mixed-use nodal area. The intent of the Nodal Overlay is to allow for pedestrian-friendly, higher density single- and multi-family residential development with pedestrian and bicycle access to a neighborhood commercial center. This will have several long-term advantages for Woodburn, including efficient urban development, reduced public

facilities costs, compact urban form, and reduced transportation costs for residents. It is also close to future industrial employment opportunities, additional shopping, and present and future parks and schools.

The Parr Road Nodal Overlay area includes approximately 196 net buildable acres of land planned for Nodal Low Density Residential, 64 net buildable acres of Nodal Medium Density Residential, and 10 net buildable acres of Neighborhood Commercial.

Mixed-Use Areas

One of the adopted measures to achieve higher densities within the 2002 UGB is vertical mixed use housing above commercial. This is allowed within the existing Woodburn Downtown and the proposed Parr Road Nodal Overlay area. Expected development within the NDO designation includes housing above commercial in the form of apartments or condominiums. The NDO provides opportunities for intensification of commercial land use and increased residential densities close to urban commercial amenities.

Transportation System Extension

Figure 5-2 of the 2005 Woodburn TSP describes improvements to existing transportation facilities, as well as planned new facilities that will support the 2005 Plan. To the north, Crosby Road is shown as improved to service collector standards. This will provide a buffer between residential expansion south of Crosby Road and agricultural land north of Crosby Road, as well as support residential development in the northern expansion area.

In the southwest, the 2005 Woodburn TSP shows extensions of Evergreen Road and Stacy Allison Drive, which will support and serve the Southwest Industrial Reserve (SWIR) (SWIR). There is also a new "South Arterial" that is shown as running from Parr Road, across the southern edge of the 2002 UGB, to Highway 99E on the east side. This South Arterial will support southwest industrial uses as well as new residential development in the Parr Road Nodal Overlay Area.

Public Uses

The 2005 Plan includes the opportunity for development of needed parks and schools in the residential expansion areas. In the northern expansion area, the Council expects at least one community park and an elementary school to serve residential expansion and population growth. In the southwest, an existing community park can expand into new residential lands. Near the commercial section of the Parr Road Nodal Overlay area, there is a requirement to create an urban plaza to serve both surrounding residents when they shop at nearby retail and service establishments.

Staff Initiated Comprehensive Plan Amendments

The 2005 Plan includes several plan map designation and zoning map amendments for individual parcels inside the 2002 UGB, to make these parcels consistent with existing or surrounding land uses. These amendments were initiated by City Staff on a separate but concurrent track. There were approximately 500 changes to plan designations on tax lots through this process. Some of the plan changes affected properties identified as containing

buildable land on the Buildable Lands Inventory. The changes that affect buildable lands are summarized in Table 21.

There were a total of 55 tax lots identified as "Vacant" or "Infill" on the Buildable Lands Inventory that were affected by these changes. In some cases the changes did not affect buildable land areas, for example when private land within riparian or flood plain areas was changed from "Open Space" to "Low Density Residential". In other cases, the changes reduced buildable lands by recognizing public ownership and existing use of lots for right-of-way or parks – identifying properties that had slipped through the original screening process in the Buildable Lands Inventory and were mistakenly identified as buildable. In many cases the changes moved buildable area from one plan designation to another. For example, Low Density Residential to Medium Density Residential.

The end result is a slightly lower supply of Low Density Residential (-6 acres) and Commercial (-1.1 acres) lands within the 2002 UGB, and slight increases in Medium Density Residential (0.5 acres) and Open Space (2.7 acres) lands. One additional small (5-10 acre) industrial site was identified during these changes, which is reflected in the industrial land acreage difference in Table 21.³⁷

Table 21: Staff-Initiated Comprehensive Plan Amendments

Plan Designation Affected	Number of Tax Lots Affected	Buildable Land Acreage Difference
Low Density Residential	20	(6)
Medium Density Residential	9	0.5
Industrial	8	6.1
Commercial	4	(1.1)
Open Space	8	2.7

Amendment Summary

The residential, industrial, and commercial expansions adopted by the City Council meet Year 2020 residential, industrial, and commercial needs as shown in Table 22 below. **Note that the adopted plan and code amendment package includes (a) redesignation of land inside the existing UGB to intensify land use in certain areas, and (b) expansion of the UGB to meet Year 2020 identified needs.**

³⁷ This site has been accounted for in the Industrial Land Needs section earlier in this document.

Table 22: Council Approved Plan – Overall UGB Demand / Supply Comparison

Plan Designation	Net Buildable Acre Supply	Net Buildable Acre Need	2005 Plan Acres Surplus (Deficit)
LDR (Low Density Residential)	371	217	154
Exception Area LDR	107	107	0
Nodal LDR	220	186	34
Internal Changes to LDR	(6)	0	(6)
MDR (Medium Density Residential)	80	62	18
Exception Area MDR	8	8	0
Nodal MDR	73	54	19
Internal Changes to MDR	1	0	1
VMU (Vertical Mixed Use)*	NA	NA	NA
Public and Semi-Public (Including Schools, Parks and Religious Institutions)	0	210	-210
All Residential	854	844	10
Commercial (Retail, Office)	127	NA	0
Internal Changes to COM	(1)	0	(1)
Industrial / Basic Employment	407	486	(79)
Internal Changes to IND	6	0	6
All Employment	534	627	(74)
Totals Surplus			(64)

Source: Winterbrook Planning

* Note: The "need" for vertical mixed use housing is met above retail or office development in Downtown Woodburn or in the proposed Neighborhood Commercial Node.

Table 22 assumes that public park and school land needs, as well as religious institutional needs, will be met on land designated for residential use. This table shows a 10-acre surplus between the demand for, and supply of, residentially-designated land.³⁸

Table 22 shows an under-supply of industrial acreage due to the mismatch between existing industrial sites and the site characteristics of sites needed by target industries. This stems from three sources.

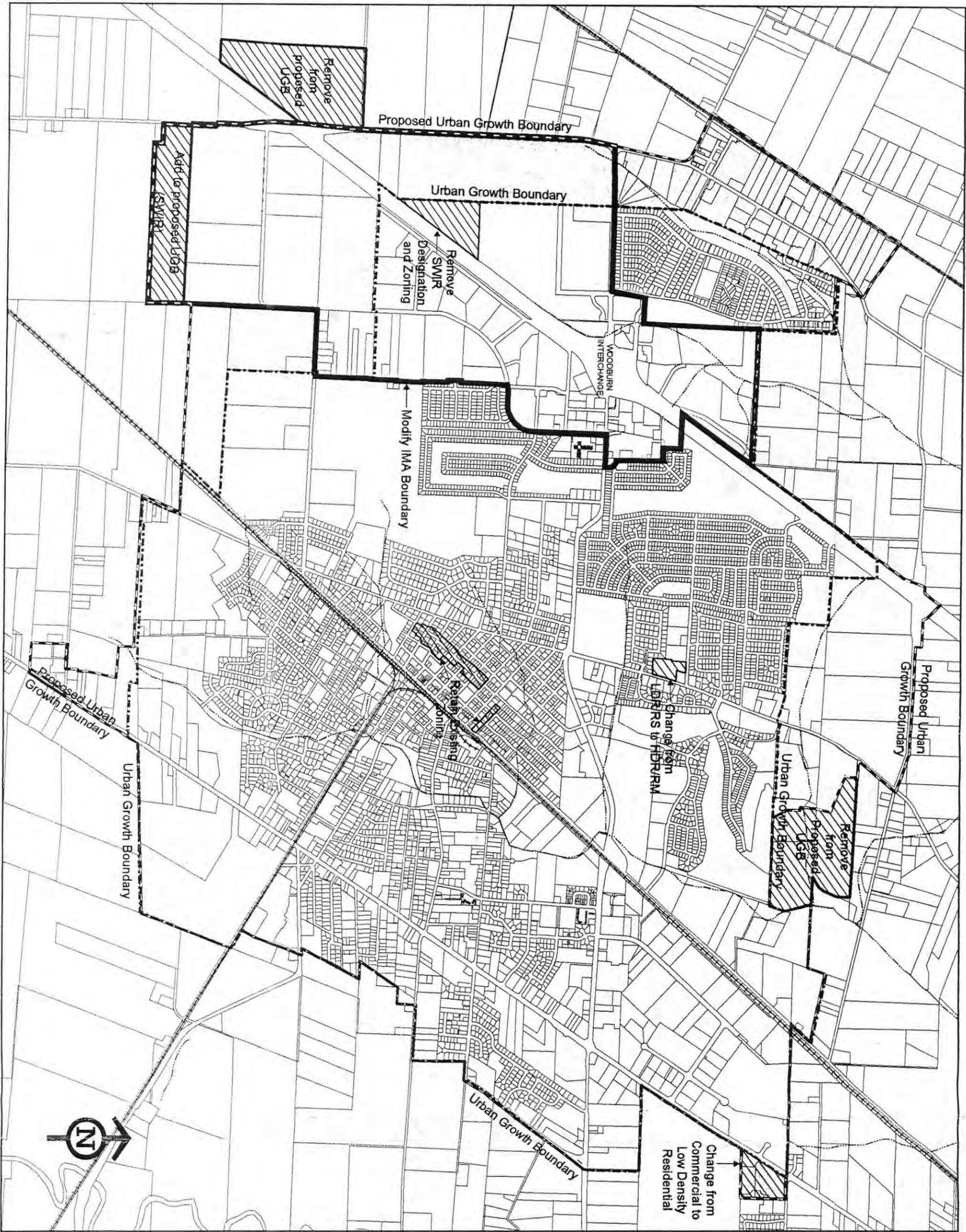
- First, some sites are below ECONorthwest’s estimated site size, but within the site size range. For example, an 11-acre site falls within the 10-25 site size range, but is below the 15-acre estimated site size.
- Second, as discussed in the Employment Land Needs section in Part I of this Report, and in the 2005 Buildable Lands Inventory, there are some lots that were initially identified as partially-vacant within the 2002 UGB, but were subsequently

³⁸ This comparison is based on cumulative acreage, rather than on capacity. Due to lot size inefficiency on low density residential lands within the existing UGB, the effective capacity is approximately 30 acres lower. Either way, the 2005 UGB is within 15 acres, or within 2%, of meeting identified 2020 residential land needs.

determined to *not* meet siting requirements -- because the landowners indicated they have plans to expand existing uses. The 2005 Comprehensive Plan intentionally restricts the supply of industrial land within the 2002 UGB in order to encourage siting of new, targeted industrial development on these lots to further maximize efficiency of land use.

- Third, the industrial siting requirements of the SWIR allow for a range of sizes to meet siting needs of targeted employers. The allocations are generally by average site size. If developed sites within the site ranges are below the average size determined by ECONorthwest, there will be additional acreage to allocate to smaller sites. The 2005 Plan allows for and ensures the availability of large sites to meet industrial siting requirements, but also allows the potential for smaller industrial park sites, as long as needed site size ranges are retained.

In summary, the 2005 Plan meets identified residential, public/semi-public, livability and employment needs for the City of Woodburn through the year 2020.



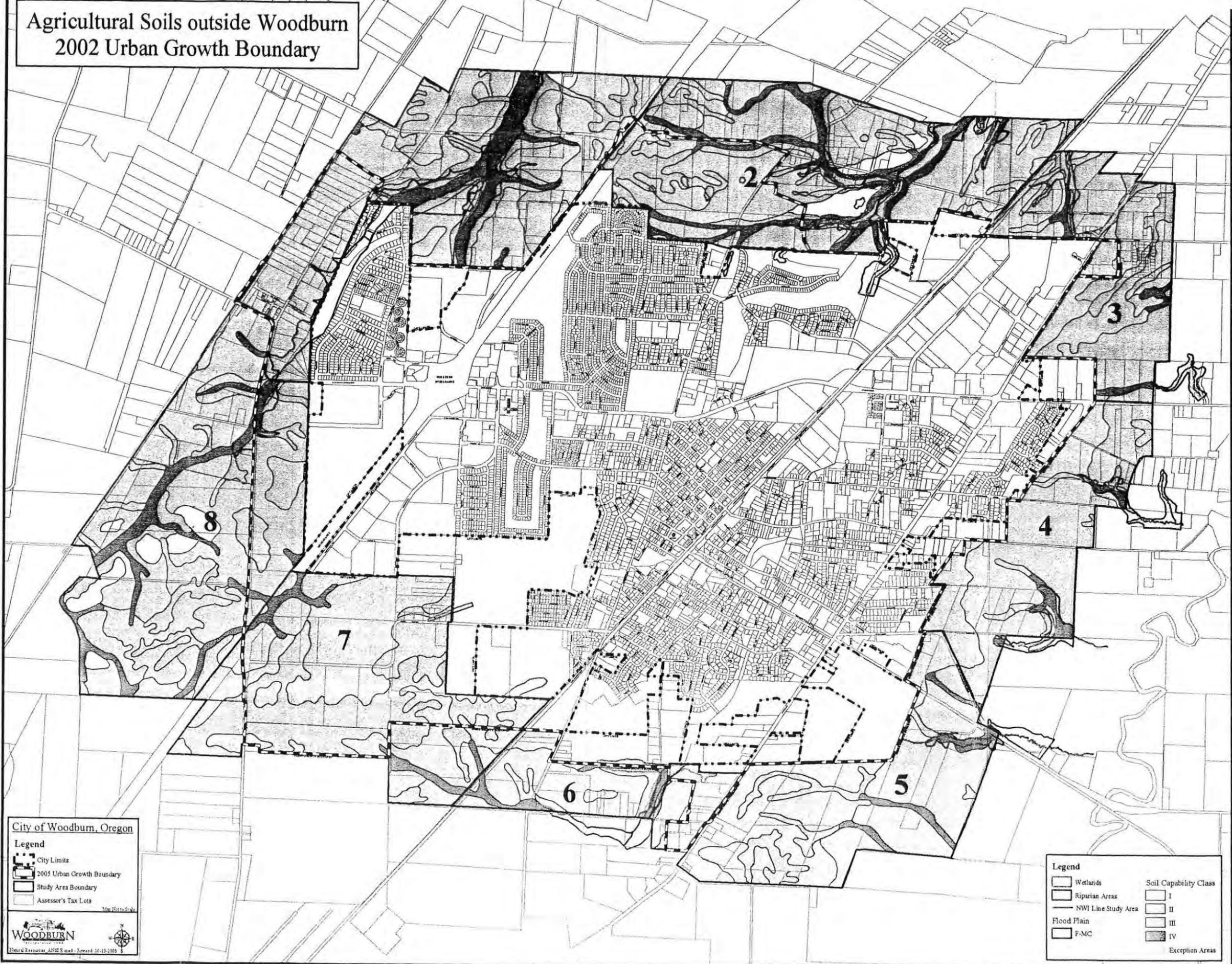
Woodburn Periodic Review Amendments

Recommended Map Revisions
June 13, 2005
City Council Meeting
Map Not to Scale

Legend

- Streams
- Railroad
- Proposed Urban Growth Boundary
- Revised Proposed Urban Growth Boundary
- Urban Growth Boundary
- Assessor's Taxlots
- UGB Expansion Areas
- Revised Areas

Agricultural Soils outside Woodburn
2002 Urban Growth Boundary



City of Woodburn, Oregon

Legend

- City Limits
- 2005 Urban Growth Boundary
- Study Area Boundary
- Assessor's Tax Lots

Map Not to Scale

Legend

- Wetlands
- Riparian Areas
- Flood Plain
- F-MC
- Soil Capability Class I
- Soil Capability Class II
- Soil Capability Class III
- Soil Capability Class IV
- Exception Areas

EXHIBIT 5-C

5-C

**WOODBURN 2005
COMPREHENSIVE PLAN
UPDATE, EXPLANATION OF
PROPOSED PLAN AND ZONING
MAP CHANGES**

**Revised 2005, Woodburn
Community Development
Department**

Woodburn 2005 Comprehensive Plan Update

Explanation of Proposed Plan and Zoning Map Changes

**Prepared By
Woodburn Community Development Department
June 2004
Revised October 2005**

Woodburn 2005 Comprehensive Plan Update

Explanation of Proposed Plan and Zoning Map Changes

Prepared June 2004 by Woodburn Community Development Department - Revised October 2005

TAXID	STREET	EXISTING ZONEPLAN	PROPOSED ZONEPLAN	EXPLANATION
052W01CC07901	1720 TEN OAKS LN	RS/OS	RS/LDR	Remove OS plan designation from private property.
052W01CC07900	0	RS/OS	RS/LDR	
052W01CC07000	0	RS/OS	RS/LDR	
052W01CC00100	1894 WOODLAND AV	RS/OS	RS/LDR	
052W01CC02900	1887 WOODLAND AV	RS/OS	RS/LDR	
052W01CC08100	1679 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC07801	1710 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC07800	1710 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC02800	1873 WOODLAND AV	RS/OS	RS/LDR	
052W01CC00200	1890 WOODLAND AV	RS/OS	RS/LDR	
052W01CC00300	1870 WOODLAND AV	RS/OS	RS/LDR	
052W01CC07701	0	RS/OS	RS/LDR	
052W01CC08200	1637 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC00400	1880 WOODLAND	RS/OS	RS/LDR	
052W01CC07700	1690 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC07601	1656 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC08300	1637 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC06601	3145 SENECA CREEK DR	RS/OS	RS/LDR	
052W01CC02600	1839 WOODLAND AV	RS/OS	RS/LDR	
052W01CC08400	1595 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC02700	1859 WOODLAND AV	RS/OS	RS/LDR	
052W01CC07600	0	RS/OS	RS/LDR	
052W01CC07501	1614 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC08501	1553 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC07500	0	RS/OS	RS/LDR	
052W01CC07401	1572 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC07400	1572 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC08600	1511 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC06700	3225 SENECA CREEK DR	RS/OS	RS/LDR	
052W01CC07301	1508 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC07300	0 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC08700	1469 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC07200	0 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC07100	0	RS/OS	RS/LDR	
052W01CC08800	0 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC08900	1427 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC09001	1385 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC09600	0	RS/OS	RS/LDR	
052W01CC09700	0	RS/OS	RS/LDR	
052W01CC09200	1343 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC09301	1301 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC09400	0 TEN OAKS LN	RS/OS	RS/LDR	
052W01CC09500	0 TEN OAKS LN	RS/OS	RS/LDR	
052W11AA01800	731 WILLOW AV	RS/OS	RS/LDR	
052W11AA01900	719 WILLOW AV	RS/OS	RS/LDR	
052W11AA02000	697 WILLOW AV	RS/OS	RS/LDR	
052W11AA02100	665 WILLOW AV	RS/OS	RS/LDR	
052W11AA02200	643 WILLOW AV	RS/OS	RS/LDR	
052W11AD01300	621 WILLOW AV	RS/OS	RS/LDR	
052W11AD01400	599 WILLOW AV	RS/OS	RS/LDR	
052W11AD01500	577 WILLOW AV	RS/OS	RS/LDR	
052W11AD01600	0	RS/OS	RS/LDR	
052W11AD01700	515 WILLOW AV	RS/OS	RS/LDR	
052W11AD01800	501 WILLOW AV	RS/OS	RS/LDR	
052W11AD01900	483 WILLOW AV	RS/OS	RS/LDR	
052W11AD02000	467 WILLOW AV	RS/OS	RS/LDR	
052W11AD02100	451 WILLOW AV	RS/OS	RS/LDR	
052W11AD02200	443 WILLOW AV	RS/OS	RS/LDR	
052W11AD02300	413 WILLOW AV	RS/OS	RS/LDR	
052W11AD02400	393 WILLOW AV	RS/OS	RS/LDR	

AXID	STREET	EXISTING ZONE/PLAN	PROPOSED ZONE/PLAN	EXPLANATION
052W11AD02500	371 WILLOW AV	RS/OS	RS/LDR	---
052W01CC03100	0	RS,P-SP/OS,LDR	P-SP/OS	Change plan designation and zoning to be consistent on the entire parcel to reflect city ownership as a park.
052W11AA03200	0	RS/LDR	P-SP/OS	Change plan designation and zoning to reflect city ownership as a park.
052W12BC06500	0	RS/LDR	PS-P/PUB	Change plan designation and zoning to reflect city ownership as a public use.
052W12BC06601	0	CG/COM	PS-P/PUB	Change plan designation and zoning to reflect city ownership as a public use.
052W11 00106	300 WOODLAND AV	IL/IND	CG/COM	Change plan designation and zoning to reflect property's recent separation by new street from IL zoned property to the south. Property is now too small for industrial use and is better situated for commercial use since property across highway and to the west are zoned commercial.
052W12C 01202	0	CG/COM	RM/MDR	Change plan designation and zoning to reflect adjacent multi-family residential land use since property is too small to develop with commercial use and ownership is same as adjacent easterly property.
051W07BC00300	0	P-SP/MDR	P-SP/OS	Change plan designation to be consistent with zoning and reflect use as a park.
051W07BA00105	0	RS/LDR	P-SP/PUB	Change plan designation and zoning to reflect city ownership as a public use.
051W07BA02400	0	RS/LDR	P-SP/OS	Change plan designation and zoning to reflect city ownership as a park.
051W07BA00600	0	RS/LDR	P-SP/PUB	Change plan designation and zoning to reflect city ownership as a public use.
051W07BA00700	1100 COUNTRY CLUB RD	RS/LDR	P-SP/PUB	---
051W07BA00900	2325 N BOONES FERRY RD	RM/MDR	RS/LDR	Change plan designation and zoning to reflect reversion of unimplemented conditional zone change back to previous plan and zoning.
051W07BD02300	965 N BOONES FERRY RD	P-SP/OS	P-SP/PUB	Change plan designation to reflect public use as a school.
052W12DA01800	950 N CASCADE DR	RM/COM	RM/MDR	Change plan designation to be consistent with zoning and existing multi-family residential use.
052W12DA03300	950 N CASCADE DR	RM/COM	RM/MDR	---
052W12DA03200	950 N CASCADE DR	RM/COM	RM/MDR	---
052W12DA03400	1890 NEWBERG HY	RM/COM	RM/MDR	---
052W12DA03500	1840 NEWBERG HY	RS/COM	CO/COM	Change zoning to be consistent with plan designation.
052W12DA03600	0	RS/COM	CO/COM	---
052W12DA03700	0	RS/COM	CO/COM	---
051W07CB09300	1219 - 1233 W LINCOLN ST	RS/LDR	RM/MDR	Change plan designation and zoning to make entire property consistent. Property is part of a larger property that is zoned RM and planned MDR and the entire property is developed with a multi-family residential development.
051W07BD02200	Miller Farm PUD	RS/OS	RS/LDR	Remove OS plan designation from private property.
051W07AB02801	Goose Hollow PUD	RS/OS	RS/LDR	---
051W07CA00500	950 N BOONES FERRY RD	RS,CO/COM	CO/COM	Change RS zoning to be consistent with plan designation.
051W07A 00800	1785 N FRONT ST	P-SP/OS,PUB,IND	P-SP/PUB	Change OS and IND plan designations to make entire property consistent with public use as a school.
051W08BC00200	0	P-SP/OS,PUB	P-SP/PUB	Remove OS plan designation from private property to be consistent with the P-SP zone and PUB designation of the property.
051W08B 03000	0	RS/LDR,OS	P-SP/OS	Change plan designation and zoning to be consistent with use of property as a natural area.
051W07AB03100	201 HAZELNUT DR	RS/LDR,OS	P-SP/OS	Change plan designation and zoning to be consistent with use of property as a golf course.
051W07AB02700	0	RS/LDR	P-SP/OS	---
051W08D 00602	0	RS/LDR	P-SP/OS	---

TAXID#	STREET	EXISTING ZONE/PLAN	PROPOSED ZONE/PLAN	EXPLANATION
051W06DC00400	0	RS/LDR	P-SP/OS	""
051W06DC02600	0	RS/LDR	P-SP/OS	""
051W08BC00100	2129 N FRONT ST	IL/IND,OS	IL/IND	Remove OS plan designation from private property.
051W08B 00700	2215 N FRONT ST	IL/IND,OS	IL/IND	""
051W08B 00400	2279 N FRONT ST	IL/IND,OS	IL/IND	""
051W08B 00300	2499 N FRONT ST	IL/IND,OS	IL/IND	""
051W05C 01600	2519 N FRONT ST	IL/IND,OS,LDR	IL,RS/IND,LDR	Remove OS plan designation from private property. Change the IL zoning on the west side of Mill Creek to be consistent with the LDR plan designation.
051W05C 01400	275 SHENANDOAH LN	None/ LDR,OS,IND	None/LDR,IND	Remove OS plan designation from private property.
051W05C 01200	295 SHENANDOAH LN	None/OS,IND	None/IND	""
051W05C 01300	393 SHENANDOAH LN	None/OS,IND	None/IND	""
051W05C 01000	395 SHENANDOAH LN	IL/OS,IND	IL/IND	""
051W08BC00700	0	CO/COM	IL/IND	Change plan designation and zoning to be consistent with adjacent property to the west which is in the same industrial use and ownership as the subject property.
051W08BC01200	0	CO/COM	IL/IND	""
051W08BC01300	0	CO/COM	IL/IND	""
051W08A 02000	2225 NATIONAL WY	IP/IND	P-SP/PUB	Change plan designation and zoning to reflect city ownership as a public use.
051W05D 02800	0	None/None	IP/IND	Mapped as street right of way, but property is in private ownership. Apply plan designation and zoning which reflects adjacent ownership and use of property.
051W08CA02800	1750 PARK AV	P-SP/PUB	RM/MDR	Surplus City owned property. Apply plan designation and zoning that reflects adjacent multi-family plan designation and zoning and multi-family land use to the north and west.
051W08CA03700	1315 JAMES ST	RS/MDR	RS/LDR	Change plan designation to be consistent with zoning and existing single-family residential use.
051W08CA03800	1345 JAMES ST	RS/MDR	RS/LDR	""
051W08CA03900	1315 TIERRA LYNN DR	RS/MDR	RS/LDR	""
051W08BC00601	0	P-SP/OS	P-SP/PUB	Remove OS plan designation from private property and change to the PUB designation which better reflects City ownership of property and use as a public facility.
051W07A 00799	0	None	P-SP/PUB	Apply plan designation and zoning that reflects city ownership of property and use as a public facility.
051W07A 00700	1679 N FRONT ST	P-SP,RW/ OS,PUB	P-SP/PUB	Remove OS plan designation from private property and change RM zoning to P-SP to better reflect use of property as a cemetery and to be consistent with the PUB plan designation.
051W07A 00900	100-292 STONEHEDGE PL	RM/OS,MDR	RM/MDR	Remove OS plan designation from private property.
051W07DB00100	1274 5TH ST	RM/OS,MDR	RM/MDR	""
051W08CB04900	1420 COMMERCE WY	P-SP/OS	IL/IND	Remove OS plan designation and change P-SP zoning to IL zone and IND plan designation to reflect private ownership of property and to be consistent with adjacent IL zone property to the south.
051W08CB05000	0	P-SP/OS	IL/IND	""
051W07DD00100	0	P-SP/OS	P-SP/PUB	Change OS plan designation to PUB plan designation to reflect City ownership of property and to be consistent with use as a public facility.
051W07DD00200	1390 COMMERCE WY	P-SP/OS	P-SP/PUB	""
051W07DD00300	0	RS,IL,P-SP/ IND,OS	P-SP/OS	Change plan designation and zoning to reflect City ownership of property and to be consistent with use as a natural area.
051W07DD02000	1360 COMMERCE WY	IL/OS,IND	IL/IND	Remove OS plan designation from private property.
051W07DD01800	687 W HARDCASTLE AV	RS/IND	RS/LDR	Change IND plan designation to be consistent with zoning and use of property as single-family residential.

TAXID	STREET	EXISTING ZONE/PLAN	PROPOSED ZONE/PLAN	EXPLANATION
051W07DD01700	589 W HARDCASTLE AV	RS/IND,OS	RS/LDR	Remove OS plan designation from private property and change IND plan designation to LDR to be consistent with RS zoning and use of property as single-family residential.
051W07DD01900	599 W HARDCASTLE AV	RS/IND,OS	RS/LDR	---
051W07DD01800	0	RS/IND,OS	RS/LDR	---
051W07DD01000	603 W HARDCASTLE AV	RS/IND,OS	RS/LDR	---
051W07DD00900	0	RS/OS,IND	P-SP/OS	Change IND plan designation and RS zoning to be consistent with City ownership of property and use as a natural area.
051W07DD00800	0	RS/OS,IND	P-SP/OS	---
051W08CC00500	1161 QUEEN CITY BV	RS/OS,LDR	RS/LDR	Remove OS plan designation from private property.
051W07DD00401	799 W HARDCASTLE AV	RS/OS,LDR	RS/LDR	---
051W07DD00400	797 W HARDCASTLE AV	RS/OS,LDR	RS/LDR	---
051W08CC04000	1151 QUEEN CITY BV	RS/OS,LDR	RS/LDR	---
051W07DD00701	781 W HARDCASTLE AV	RS/OS,LDR	RS/LDR	---
051W08CC04700	865 W HARDCASTLE AV	RS/OS,LDR	RS/LDR	---
051W07DD00700	775 W HARDCASTLE AV	RS/OS,LDR	RS/LDR	---
051W08CC00200	0	RS/LDR	PS-P/OS	Change plan designation and zoning to reflect City ownership of property as part of Legion Park.
051W08CD05100	1409 W HARDCASTLE AV	RS/LDR	RM/MDR	Change plan designation and zoning in an area that has larger lots and older insignificant homes to provide opportunity for redevelopment and infill with multi-family development. Existing zoning and plan designation on south side of Hardcastle Avenue is RM/MDR. In addition, multi-family development is more compatible adjacent to Hardcastle Avenue which is a collector street.
051W08CC03400	1015 W HARDCASTLE AV	RS/LDR	RM/MDR	---
051W08CC03100	0	RS/LDR	RM/MDR	---
051W08CC02900	1105 W HARDCASTLE AV	RS/LDR	RM/MDR	---
051W08CC02800	1155 W HARDCASTLE AV	RS/LDR	RM/MDR	---
051W08CD05200	1429 W HARDCASTLE AV	RS/LDR	RM/MDR	---
051W08CC02100	1175 W HARDCASTLE AV	RS/LDR	RM/MDR	---
051W08CD03700	1205 W HARDCASTLE AV	RS/LDR	RM/MDR	---
051W08CD05300	1505 W HARDCASTLE AV	RS/LDR	RM/MDR	---
051W08CC03000	1055 W HARDCASTLE AV	RS/LDR	RM/MDR	---
051W08CD05400	1515 W HARDCASTLE AV	RS/LDR	RM/MDR	---
051W08CC02000	1187 - 1195 W HARDCASTLE AV	RS/LDR	RM/MDR	---
051W08CD05500	1809 W HARDCASTLE AV	RS/LDR	RM/MDR	---
051W08CA09600	1587 JAMES ST	RM/LDR	RS/LDR	Change zoning to be consistent with plan designation and use of property as a single-family residence.
051W08CD00300	1850 JAMES ST	CG/PUB	P-SP/PUB	Change zoning to be consistent with plan designation and use of property as a fire station.
051W08CD05800	1185 - 1195 N PACIFIC HY	CG,RS,CO/COM	CG/COM	Change zoning to make entire parcel consistent with plan designation and primary zoning of CG.
051W08DC00300	1220 N PACIFIC HY	CG,RS,RW/COM	CG/COM	Change zoning to make entire parcel consistent with plan designation, primary zoning of CG, and use of property as commercial plant nursery.

PARCEL	STREET	EXISTING ZONE/PLAN	PROPOSED ZONE/PLAN	EXPLANATION
051W08DC00900	1755 E HARDCASTLE AV	RM/COM	CG/COM	Change zoning to be consistent with plan designation.
051W08DD04300	0	P-SP,RS/ OS,LDR	P-SP,RS/ OS,LDR	Adjust boundary of plan designations to be consistent with zoning boundary.
051W17BA05800	1482 AZTEC DR	RS/COM	RS/LDR	Change plan designation to be consistent with zoning and use of property as single-family residence.
051W17BA05700	1490 AZTEC DR	RS/COM	RS/LDR	""
051W17BD00900	1535 LAUREL AV	CG/COM	RS/LDR	Change plan designation and zoning to be consistent with use of property as recently constructed single-family residence.
051W17BD00800	1555 LAUREL AV	CG/COM	RS/LDR	""
051W17BD00700	1575 LAUREL AV	CG/COM	RS/LDR	""
051W17BD00600	1595 LAUREL AV	CG/COM	RS/LDR	""
051W17BD00500	1615 LAUREL AV	CG/LDR	RS/LDR	Change zoning to be consistent with plan designation and use of property as single-family residence.
051W17BD05400	1425 TOMLIN AV	RS/COM	RS/LDR	Change plan designation to be consistent with zoning and use of property as single-family residence in a stable residential neighborhood.
051W17BC09200	1395 TOMLIN AV	RS/COM	RS/LDR	""
051W17BC09300	1365 TOMLIN AV	RS/COM	RS/LDR	""
051W17BC09400	1335 TOMLIN AV	RS/COM	RS/LDR	""
051W17BC09900	1360 TOMLIN AV	RS/COM	RS/LDR	""
051W17BC09800	1330 TOMLIN AV	RS/COM	RS/LDR	""
051W17BC09700	1300 TOMLIN AV	RS/COM	RS/LDR	""
051W17BC09500	1305 TOMLIN AV	CG/COM	RS/LDR	Change plan designation and zoning to be consistent with use of property as good quality single-family residence at the entry of a stable residential neighborhood.
051W17BC10300	1335 GEORGE ST	RS/COM	RS/LDR	Change plan designation to be consistent with zoning and use of property as single-family residence in a stable residential neighborhood.
051W17BC10400	1305 GEORGE ST	RS/COM	RS/LDR	""
051W17BC10500	1295 GEORGE ST	RS/COM	CG/COM	Change zoning to be consistent with plan designation.
051W17BC10900	1300 GEORGE ST	RS/COM	CG/COM	""
051W17BC10800	1235 YOUNG ST	RS/COM	CG/COM	""
051W17BC11800	1295 YOUNG ST	RS/COM	CG/COM	""
051W17BC11700	1265 YOUNG ST	RS/COM	CG/COM	""
051W17BA01100	1318 E LINCOLN ST	CG/LDR	CG/COM	Change plan designation to be consistent with zoning. Property has existing single-family residence that is very old with improvement value roughly half of land value.
051W17BA01200	1418 E LINCOLN ST	CG/LDR	CG/COM	""
051W08CD08700	1031 WILLIAMS AV	RM/COM	CG/COM	Change zoning to be consistent with plan designation. Property has existing single-family residence that is older with improvement value roughly equal to land value.
051W17BB02100	1051 BRYAN ST	RM/LDR	RS/LDR	Change zoning to be consistent with plan designation. Property has existing single-family residence.
051W17BB02000	1045 - 1047 BRYAN ST	RM/LDR	RS/LDR	Change zoning to be consistent with plan designation. Property has existing duplex which is permitted in RS zone.
051W08CC05400	993 E LINCOLN ST	RM/MDR	P-SP/PUB	Change plan designation and zoning to be consistent with use of property as a public school.
051W08CC04800	0	P-SP,RM/PUB	P-SP/PUB	Change RM zoning to be consistent with use of property as a public school.
051W18AA00100	777 E LINCOLN ST	P-SP,RM/PUB	P-SP/PUB	""
051W07DD08700	0	RM/OS,PUB	RM/MDR	Change plan designations to be consistent with zoning. Property is vacant and privately owned.
051W17BA01900	1375 BLAINE ST	CG/PUB	P-SP/PUB	Change zoning to be consistent with plan designation. Property is owned by the State and developed with a public facility.
051W17BB03500	1375 BLAINE ST	CG/PUB	P-SP/PUB	""
051W17BC00500	447 N PACIFIC HY	CG,RS/COM	CG/COM	Change RS zoning to be consistent over the entire property with plan designation and use of property as commercial.

PROJECT	ADDRESS	EXISTING ZONE/PAN	PROPOSED ZONE/PAN	EXPLANATION
051W17BC01500	435 N PACIFIC HY	CG,RS/ COM,LDR	CG/COM	Change RS zoning and LDR plan designation to make entire property consistent with use as commercial.
051W17BC01400	325 ELM ST	CG,RS/ COM,LDR	CG/COM	---
051W17BC01200		CG,RS/ COM,LDR	CG/COM	---
051W17BB09200	555 N PACIFIC HY	CG,RS/COM	CG/COM	Change RS zoning to be consistent over the entire property with plan designation and use of property as commercial.
051W17BB09100	1257 JOHNSON ST	CG/LDR	RS/LDR	Change zoning to be consistent with plan designation and use of property as single-family residence in a stable residential neighborhood.
051W17BB09400	1260 JOHNSON ST	CG/LDR	RS/LDR	---
051W17BB09500	664 ELM ST	CG/LDR	RS/LDR	---
051W18AD01400	909 YOUNG ST	CO/MDR	CO/COM	Change plan designation to be consistent with zoning and use of property as an office complex.
051W18AD01700	881 YOUNG ST	RS/MDR	RM/MDR	Change RS zoning to be consistent with plan designation.
051W18AD01800	871 YOUNG ST	RS/MDR	RM/MDR	---
051W18AD08100	910 YOUNG ST	CG/MDR	RM/MDR	Change zoning to be consistent with plan designation and use of property as residential.
051W18AD08200	950 YOUNG ST	CG/COM	RM/MDR	Change plan designation and zoning to be consistent with use of property as residential.
051W18AD08300	960 YOUNG ST	RM,CG/ MDR,COM	CG,COM	Change RM zoning and MDR plan designation to make entire property consistent with use as commercial.
051W18AD03400	793 YOUNG ST	RS/MDR	RM/MDR	Change RS zoning to be consistent with plan designation.
051W18AD03700	775 YOUNG ST	RS/MDR	RM/MDR	---
051W18AD04000	719 YOUNG ST	RS/MDR	RM/MDR	---
051W18AD03500	297 GATCH ST	RS/MDR	RM/MDR	---
051W18AD03600	325 GATCH ST	RS/MDR	RM/MDR	---
051W18AD03900	0	RS/MDR	RM/MDR	---
051W18AD04700	657 YOUNG ST	RS/MDR	RM/MDR	---
051W18AC00200	606 YOUNG ST	RM/OS,MDR	RM/MDR	Remove OS plan designation from private property.
051W18AC01900	787 E CLEVELAND ST	RM/OS,MDR	RM/MDR	---
051W18AC00300	0	RM/OS,MDR	RM/MDR	---
051W18AC00400	148 D ST	RM/OS,MDR	RM/MDR	---
051W18AC01800	0	RM/OS	P-SP/OS	Change zoning to reflect City ownership of property and to be consistent with use as a natural area.
051W18AC01700	502 BROADWAY ST	RM/IND,OS	RM/MDR	Remove OS plan designation from private property and change IND plan designation to be consistent with the RM zoning and use of property as residential.
051W18AC01501	408 BROADWAY ST	RM/IND	RM/MDR	Change plan designation to be consistent with zoning and use of property as residential. This property is part of a stable residential neighborhood.
051W18AC01500	458 BROADWAY ST	RM/IND	RM/MDR	---
051W18AC01600	498 BROADWAY ST	RM/IND	RM/MDR	---
051W18AC00900	416 YOUNG ST	RM/IND	RM/MDR	---
051W18AC00800	444 YOUNG ST	RM/IND	RM/MDR	---
051W18AC00700	488 YOUNG ST	RM/IND	RM/MDR	---
051W18AC00600	492 YOUNG ST	RM/IND	RM/MDR	---
051W18AC01000	411 BROADWAY ST	RM/IND	RM/MDR	---
051W18AC00500	477 BROADWAY ST	RM/IND	RM/MDR	---
051W18AB11300	300 YOUNG ST	CO/IND	CG/COM	Change zoning and plan designation to provide uniform zoning and plan designation on the block in which the property is located. Commercial zoning is more appropriate on Young Street which is a minor arterial and consistent with the CG zoning on the north side of Young Street.
051W18AB12500	315 BROADWAY ST	CO/IND	CG/COM	---
051W18AB11200	356 YOUNG ST	RM/IND	CG/COM	---
051W18AB11100	376 YOUNG ST	RM/IND	CG/COM	---
051W18AB12600	345 BROADWAY ST	RM/IND	CG/COM	---

PARCEL	STREET	EXISTING ZONE/PLAN	PROPOSED ZONE/PLAN	EXPLANATION
051W18AB12700	363 BROADWAY ST	RM/IND	CG/COM	***
051W18AB12800	387 BROADWAY ST	IL/IND	CG/COM	***
051W18AB11600	202 YOUNG ST	IL/IND	P-SP/PUB	Change plan designation and zoning to reflect City ownership and use of property as a public facility.
051W18AB11500	0	IL/IND	P-SP/PUB	***
051W18AB12300	0	IL/IND	P-SP/PUB	***
051W18AB12400	293 BROADWAY ST	IL/IND	P-SP/PUB	***
051W18AB11400	290 YOUNG ST	IL/IND	CG/COM	Change zoning and plan designation to provide commercial zoning on Young Street and consistent with the commercial use of the property. Commercial zoning is more appropriate on Young Street which is a minor arterial and consistent with the CG zoning on the north side of Young Street.
051W18AB13100	106 BROADWAY ST	P-SP/IND	P-SP/PUB	Change plan designation to reflect City ownership and use of property as a public facility.
051W18AB13300	0	P-SP/IND	P-SP/PUB	***
051W18AB13200	0	P-SP,IL/IND	P-SP/PUB	Change plan designation and zoning to reflect City ownership and use of property as a public facility.
051W18AB12200	105 A ST	P-SP,IL/IND	P-SP/PUB	***
051W18AB12000	0	IL/IND	P-SP/PUB	Change plan designation and zoning to reflect quasi-public (Union Pacific Railroad) ownership and use of property as a railroad facility.
051W18AB11900	0	IL/IND	P-SP/PUB	***
051W18AB11800	110 YOUNG ST	IL/IND	CG/COM	Change zoning and plan designation to provide commercial zoning on Young Street. Commercial zoning is more appropriate on Young Street which is a minor arterial and consistent with the CG zoning on the north side of Young Street.
051W18AB11700	182 YOUNG ST	IL/IND	CG/COM	***
051W18AD04800	601 YOUNG ST	RM/OS,MDR	RM/MDR	Remove OS plan designation from private property.
051W18AA02500	500 YOUNG ST	RS/ OS,LDR,MDR	RS,RM/ LDR,MDR	Remove OS plan designation from private property. Apply RM zone and MDR designation to be consistent with proposed RM zoning to the west and south of the subject property.
051W18AB10800	453 YOUNG ST	CG/COM	RM/MDR	Change zoning and plan designation to provide multi-family residential zoning. Existing use is good quality single-family residence. This area is more likely to transition to multi-family than to commercial and will be consistent with proposed RM zoning on south side of Young Street.
051W18AB10900	485 YOUNG ST	CG/COM	RM/MDR	***
051W18AB11000	503 YOUNG ST	CG/COM	RM/MDR	***
051W18AB10400	404 TOOZE ST	CG/OS,COM	RM/MDR	Remove OS plan designation from private property and change zoning and plan designation to provide multi-family residential zoning. Existing use is underdeveloped as a storage yard. This area is more likely to transition to multi-family than to commercial and will be consistent with proposed RM zoning proposed in the area.
051W18AB10000	378 OSWALD ST	RS/OS,LDR	RM/MDR	Remove OS plan designation from private property and change zoning and plan designation to provide multi-family residential zoning. This property is in an area of primarily older, lower quality residences that is more likely to transition to multi-family than to redevelop as single-family. RM zoning also provides a transition and buffer between CG and RS zoning.
051W18AB10300	422 TOOZE ST	RS/OS,LDR	RM/MDR	***
051W18AB10101	488 TOOZE ST	RS/LDR	RM/MDR	Change zoning and plan designation to provide multi-family residential zoning. This property is in an area of primarily older, lower quality residences that is more likely to transition to multi-family than to redevelop as single-family. RM zoning also provides a transition and buffer between CG and RS zoning.
051W18AB10100	488 TOOZE ST	RS/LDR	RM/MDR	***
051W18AB09900	390 OSWALD ST	RS/LDR	RM/MDR	***
051W18AB10200	426 TOOZE ST	RS/LDR	RM/MDR	***
051W18AB09600	341 OSWALD ST	RS/LDR	RM/MDR	***

TAXID#	STREET	EXISTING ZONE/PLAN	PROPOSED ZONE/PLAN	EXPLANATION
051W18AB09500	363 OSWALD ST	RS/LDR	RM/MDR	""
051W18AB09400	371 OSWALD ST	RS/LDR	RM/MDR	""
051W18AB09300	387 OSWALD ST	RS/LDR	RM/MDR	""
051W18AB09700	321 OSWALD ST	RS/COM	RM/MDR	""
				Change zoning and plan designation to provide multi-family residential zoning. This property is in an area of primarily older, lower quality residences that is more likely to transition to multi-family than to redevelop as commercial or single-family. RM zoning also provides a transition and buffer between CG and RS zoning.
051W18AB08800	234 E LINCOLN ST	RS,CG/COM	RM/MDR	""
051W18AB08700	596 DOUD ST	CG/COM	RM/MDR	""
051W18AB08600	548 DOUD ST	CG/COM	RM/MDR	""
051W18AB08500	245 OSWALD ST	CG/COM	RM/MDR	""
051W18AB09800	299 OSWALD ST	CG/COM	RM/MDR	""
051W18AA03000	0	RS/OS,LDR	RS/LDR	Remove OS plan designation from private property.
051W18AA03001	388 E LINCOLN ST	RS/OS,LDR	RS/LDR	""
051W18AA03300	388 E LINCOLN ST	RS/OS,LDR	RS/LDR	""
051W18AA02800	366 E LINCOLN ST	RS/OS,LDR	RS/LDR	""
051W18AA03800	0	RS/OS,LDR	RS/LDR	""
051W18AA03301	0	RS/OS,LDR	RS/LDR	""
051W18AA03400	0	RS/OS,LDR	RS/LDR	""
051W18AA03500	502 E LINCOLN ST	RS/OS,LDR	RS/LDR	""
051W18AA05500	641 GATCH ST	RS/OS,LDR	RS/LDR	""
051W18AA05600	0	RS/OS,LDR	RS/LDR	""
051W18AA05800	0	RS/OS,LDR	RS/LDR	""
051W18AA05700	591 GATCH ST	RS/OS,LDR	RS/LDR	""
				Change plan designation and zoning to reflect City ownership of property and to be consistent with use as a natural area.
051W18AA03600	0	RS/OS,LDR	P-SP/OS	""
051W18AA03700	0	RS/OS,LDR	P-SP/OS	""
051W18AA04300	778 E LINCOLN ST	RS/OS,LDR	RS/LDR	Remove OS plan designation from private property.
051W18AA04500	0	RS/OS,LDR	RS/LDR	""
051W18AA04100	758 E LINCOLN ST	RS/OS,LDR	RS/LDR	""
051W18AA04000	744 E LINCOLN ST	RS/OS,LDR	RS/LDR	""
051W18AA04200	766 E LINCOLN ST	RS/OS,LDR	RS/LDR	""
051W18AA04400	0	RS/OS,LDR	RS/LDR	""
051W17BB01600	845 MCKINLEY ST	RS/OS,LDR	RS/LDR	""
051W17BB01700	855 MCKINLEY ST	RS/OS,LDR	RS/LDR	""
051W17BB01701	859 MCKINLEY ST	RS/OS,LDR	RS/LDR	""
051W17BB01500	840 MCKINLEY ST	RS/OS,LDR	RS/LDR	""
051W17BB01400	860 MCKINLEY ST	RS/OS,LDR	RS/LDR	""
051W17BB01300	0	RS/OS,LDR	RS/LDR	""
051W17BB01200	900 E LINCOLN ST	RS/OS,LDR	RS/LDR	""
051W17BB01000	0	RS/OS,LDR	RS/LDR	""
051W17BB01100	984 E LINCOLN ST	RS/OS,LDR	RS/LDR	""
051W07DD02400	344 W HARDCASTLE AV	RS/OS,LDR	RS/LDR	""
051W07DD06000	444 W HARDCASTLE AV	RS/OS,LDR	RS/LDR	""
051W07DD08100	580 W HARDCASTLE AV	RS/OS,LDR	RS/LDR	""
051W07DD05900	0	RS/OS,LDR	RS/LDR	""
051W07DD06200	950 GATCH ST	RS/OS,LDR	RS/LDR	""
051W07DD05700	931 GATCH ST	RS/OS,LDR	RS/LDR	""
051W07DD05600	891 GATCH ST	RS/OS,LDR	RS/LDR	""
051W07DD05500	865 GATCH ST	RS/OS,LDR	RS/LDR	""
051W07DD05400	833 GATCH ST	RS/OS,LDR	RS/LDR	""
051W18AA00900	799 GATCH ST	RS/OS,LDR	RS/LDR	""
051W18AA00800	717 GATCH ST	RS/OS,LDR	RS/LDR	""
051W18AA00700	691 E LINCOLN ST	RS/OS,LDR	RS/LDR	""
051W18AA01200	485 E LINCOLN ST	RS/OS,LDR	RS/LDR	""
051W18AA01100	497 E LINCOLN ST	RS/OS,LDR	RS/LDR	""
				Change plan designation to reflect City ownership of property and use as a park.
051W18AA01000	0	P-SP/OS,LDR	P-SP/OS	""
051W07DD03800	0	P-SP/OS,LDR	P-SP/OS	""

Parcel ID	Address	Existing Zoning/Plan	Proposed Zoning/Plan	Explanation
051W07DD05300	0	P-SP/OS,LDR	P-SP/OS	***
051W07DD03700	0	P-SP/OS,LDR	P-SP/OS	***
051W07DD03600	0	P-SP/OS,LDR	P-SP/OS	***
051W07DD05800	0	RS/OS	P-SP/OS	Change zoning to reflect City ownership of property and to be consistent with use as a natural area.
051W18AB01500	151 E LINCOLN ST	CG/IND	CG/COM	Change plan designation to be consistent with zoning and surrounding CG zoning.
051W07DC10200	989 CORBY ST	RS/MDR	RM/MDR	Change zoning to be consistent with plan designation.
051W07DC10400	935 - 939 CORBY ST	RS/MDR	RM/MDR	***
051W07DC10500	0	RS/MDR	RM/MDR	***
051W07DC10600	919 CORBY ST	RS/MDR	RM/MDR	***
051W07DC10800	868 N FRONT ST	IL,RM/IND	IL/IND	Change RM zoning at southeast corner of property to be consistent with plan designation.
051W18AB01300	171 E LINCOLN ST	RM,CG/MDR	RM/MDR	Change zoning to be consistent with plan designation.
051W18AB01400	0	RM,CG/MDR	RM/MDR	***
051W18BD02900	208 OGLE ST	RS/OS,LDR	RS/LDR	Remove OS plan designation from private property.
051W18AC02100	404 E CLEVELAND ST	RS/OS,LDR	RS/LDR	***
051W18AC02200	434 E CLEVELAND ST	RS/OS,LDR	RS/LDR	***
051W18BD03000	398 OGLE ST	RS/OS,LDR	RS/LDR	***
051W18BD02500	357 A ST	RS/OS,LDR	RS/LDR	***
051W18AC02202	275 BROWN ST	RS/OS,LDR	RS/LDR	***
051W18AC02400	269 BROWN ST	RS/OS,LDR	RS/LDR	***
051W18AC02302	221 BROWN ST	RS/OS,LDR	RS/LDR	***
051W18BD02800	202 - 294 E CLEVELAND ST	RS/OS,LDR	RS/LDR	***
051W18BD00100	400 E CLEVELAND ST	P-SP/OS,LDR	P-SP/PUB	Change plan designation to reflect City ownership of property and use as a public facility.
051W18AC02201	0	RS/OS,LDR	P-SP/OS	Change plan designation and zoning to reflect City ownership of property and to be consistent with use as a natural area.
051W18AC03200	0	RS/OS,LDR	P-SP/OS	***
051W18AC03300	0	RS/OS,LDR	P-SP/OS	***
051W18AC03400	0	RS/OS,LDR	P-SP/OS	***
051W18AC03600	0	RS/OS,LDR	P-SP/OS	***
051W18AC03700	0	RS/OS,LDR	P-SP/OS	***
051W18AC03800	0	RS/OS,LDR	P-SP/OS	***
051W18AC03500	535 BROWN CT	RS/OS	RS/LDR	Remove OS plan designation from private property.
051W18AC04500	220 BROWN ST	RS/OS,LDR	RS/LDR	***
051W18AC07100	760 E CLEVELAND ST	RS/OS,LDR	RS/LDR	***
051W18AC04400	530 BROWN CT	RS/OS,LDR	RS/LDR	***
051W18AC03900	545 BROWN CT	RS/OS	RS/LDR	***
051W18AC04000	555 BROWN CT	RS/OS,LDR	RS/LDR	***
051W18AC07000	245 MARSHALL ST	RS/OS	RS/LDR	***
051W18AC04100	565 BROWN CT	RS/OS,LDR	RS/LDR	***
051W18AC04200	569 BROWN CT	RS/OS,LDR	RS/LDR	***
051W18AC06900	255 MARSHALL ST	RS/OS,LDR	RS/LDR	***
051W18AC06800	325 MARSHALL ST	RS/OS,LDR	RS/LDR	***
051W18AC06700	347 MARSHALL ST	RS/OS,LDR	RS/LDR	***
051W18AC07200	0	RS/OS,LDR	P-SP/OS	Change plan designation and zoning to reflect City ownership of property and to be consistent with use as a natural area.
051W18AC08500	0	RS/OS,LDR	P-SP/OS	***
051W18AC08400	0		P-SP/OS	Change plan designation to reflect City ownership of property and to be consistent with use as a natural area.
051W18DB02200	0	P-SP/OS,LDR	P-SP/OS	***
051W18DB02300	0	P-SP/OS,LDR	P-SP/OS	***
051W18AC07300	810 E CLEVELAND ST	RS/OS,LDR	RS/LDR	Remove OS plan designation from private property.
051W18AC07400	820 E CLEVELAND ST	RS/OS,LDR	RS/LDR	***
051W18AC08000	230 MARSHALL ST	RS/OS	RS/LDR	***
051W18AC07900	0	RS/OS	RS/LDR	***
051W18AC07800	240 MARSHALL ST	RS/OS,LDR	RS/LDR	***
051W18AC08100	0	RS/OS	RS/LDR	***
051W18AC08600	270 MARSHALL ST	RS/OS	RS/LDR	***

Parcel ID	Address	EXISTING ZONE/PLAN	PROPOSED ZONE/PLAN	EXPLANATION
051W18AC08200	0	RS/OS,LDR	RS/LDR	***
051W18AC08300	250 MARSHALL ST	RS/OS,LDR	RS/LDR	***
051W18AC08700	330 MARSHALL ST	RS/OS	RS/LDR	***
051W18AC08800	350 MARSHALL ST	RS/OS,LDR	RS/LDR	***
051W18DB00700	305 SENECA CT	RS/OS,LDR	RS/LDR	***
051W18AC09000	841 STARK ST	RS/OS,LDR	RS/LDR	***
051W18AC09100	865 STARK ST	RS/OS,LDR	RS/LDR	***
051W18DB00800	345 SENECA CT	RS/OS,LDR	RS/LDR	***
051W18AC09200	885 STARK ST	RS/OS,LDR	RS/LDR	***
051W18DB00900	395 SENECA CT	RS/OS,LDR	RS/LDR	***
051W18DB02700	430 HERMANSON ST	RS/OS,LDR	RS/LDR	***
051W18DB02100	900 STARK ST	RS/OS,LDR	RS/LDR	***
051W18DB02600	450 HERMANSON ST	RS/OS,LDR	RS/LDR	***
051W18DB02000	930 STARK ST	RS/OS,LDR	RS/LDR	***
051W18DB01800	445 JANA AV	RS/OS,LDR	RS/LDR	***
051W18DB01700	495 JANA AV	RS/OS,LDR	RS/LDR	***
051W18DB01600	515 JANA AV	RS/OS,LDR	RS/LDR	***
051W18DB02500	490 HERMANSON ST	RS,P-SP/ OS,LDR	RS/LDR	Remove OS plan designation and P-SP zoning from private property.
051W18DB12000	0	P-SP/OS,LDR	P-SP/OS	Change plan designation to reflect City ownership of property and to be consistent with use as a natural area.
051W18DB12100	0	P-SP/OS,LDR	P-SP/OS	***
051W18DB11400	0	P-SP/OS,LDR	P-SP/OS	***
051W18DC00100	0	RS/OS,LDR	P-SP/OS	Change plan designation and zoning to reflect City ownership of property and to be consistent with use as a natural area.
051W18DC04100	0	RS/OS,LDR	P-SP/OS	***
051W18DB11800	900 WILSON ST	RS/OS,LDR	RS/LDR	Remove OS plan designation from private property.
051W18DB08300	783 WARREN WY	RS/OS,LDR	RS/LDR	***
051W18DB08200	797 WARREN WY	RS/OS,LDR	RS/LDR	***
051W18DB08100	855 MEADOWVALE LN	RS/OS,LDR	RS/LDR	***
051W18DB08000	863 MEADOWVALE LN	RS/OS,LDR	RS/LDR	***
051W18DB05900	877 MEADOWVALE LN	RS/OS,LDR	RS/LDR	***
051W18DB05800	889 MEADOWVALE LN	RS/OS,LDR	RS/LDR	***
051W18DB11902	980 WILSON ST	RS/OS,LDR	RS/LDR	***
051W18DB11900	980 WILSON ST	RS/OS	RS/LDR	***
051W18DB11600	672 HERMANSON ST	RS/OS	RS/LDR	***
051W18DB08400	770 WARREN WY	RS/OS,LDR	RS/LDR	***
051W18DB11500	0	RS/OS,LDR	RS/LDR	***
051W18DB08800	882 MEADOWVALE LN	RS/OS,LDR	RS/LDR	***
051W18DB08500	0	RS/OS,LDR	RS/LDR	***
051W18DB08700	862 MEADOWVALE LN	RS/OS,LDR	RS/LDR	***
051W18DB10800	700 HERMANSON ST	RS/OS,LDR	RS/LDR	***
051W18DB10700	917 AMITY CT	RS/OS,LDR	RS/LDR	***
051W18DB10900	0	RS/OS,LDR	RS/LDR	***
051W18DB11000	833 AMITY CT	RS/OS,LDR	RS/LDR	***
051W18DB11100	980 AMITY CT	RS/OS,LDR	RS/LDR	***
051W18DB11200	978 AMITY CT	RS/OS,LDR	RS/LDR	***
051W18DB11300	978 AMITY CT	RS/OS,LDR	RS/LDR	***
051W18DB10000	0	RS/OS,LDR	RS/LDR	***
051W18DB13100	623 JULIE CT	RS/OS,LDR	RS/LDR	***
051W18DB09900	820 HERMANSON ST	RS/OS,LDR	RS/LDR	***
051W18DB13500	0	RS/OS,LDR	RS/LDR	***
051W18DB09800	0	RS/OS,LDR	RS/LDR	***
051W18DB09700	840 HERMANSON ST	RS/OS,LDR	RS/LDR	***
051W18DB09600	860 HERMANSON ST	RS/OS	RS/LDR	***
051W18DB09500	0	RS/OS	RS/LDR	***
051W18DB09400	0	RS/OS	RS/LDR	***
051W18DC00200	920 HERMANSON ST	RS/OS	RS/LDR	***
051W18DC00300	932 HERMANSON ST	RS/OS	RS/LDR	***
051W18DC00400	944 HERMANSON ST	RS/OS	RS/LDR	***
051W18DC00500	956 HERMANSON ST	RS/OS	RS/LDR	***
051W18DC00800	988 HERMANSON ST	RS/OS	RS/LDR	***
051W18DC00700	990 HERMANSON ST	RS/OS	RS/LDR	***
051W18DC00800	1020 HERMANSON ST	RS/OS	RS/LDR	***

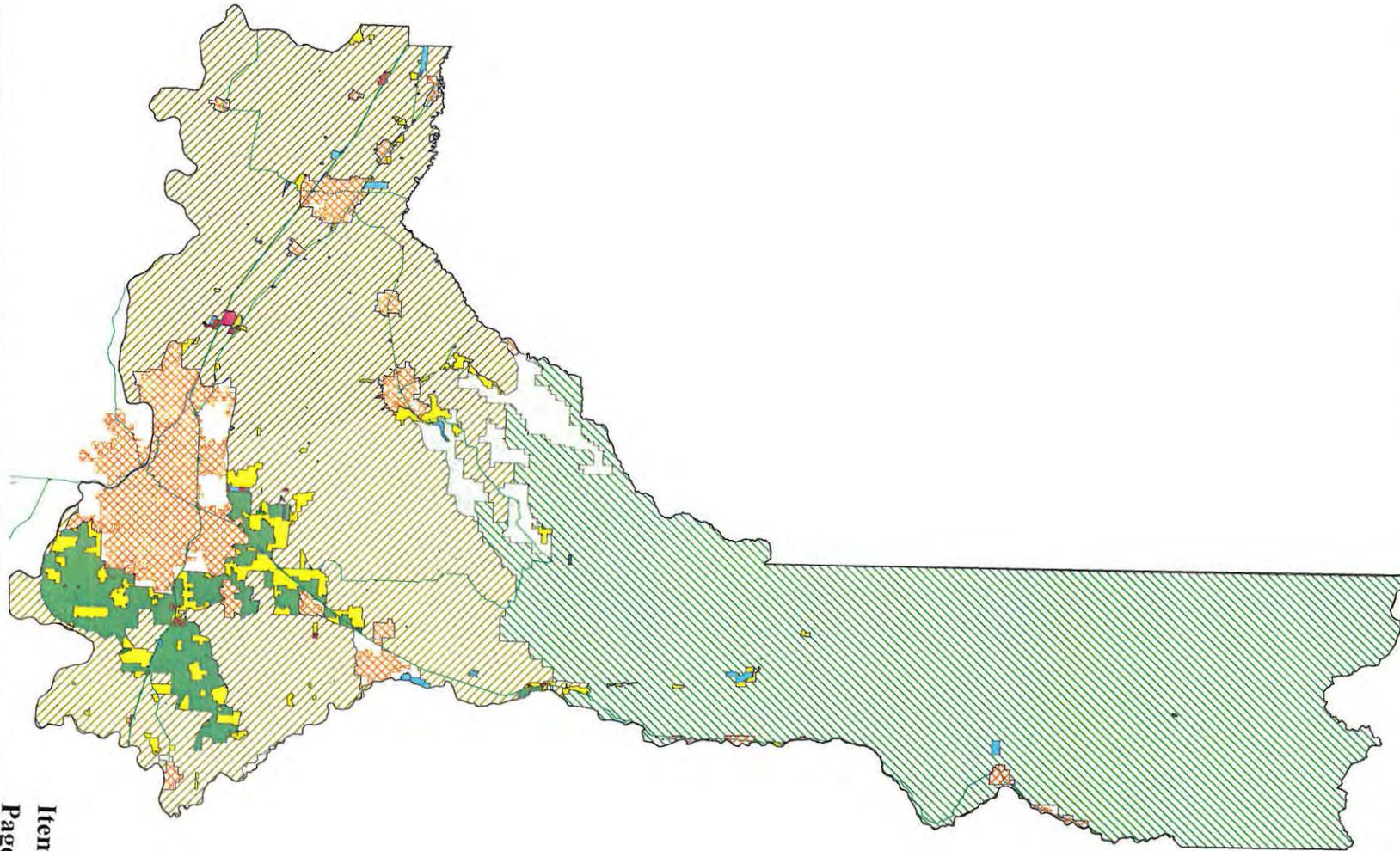
TAXID	STREET	EXISTING ZONE/PLAN	PROPOSED ZONE/PLAN	EXPLANATION
051W18DC00900	1044 HERMANSON ST	RS/OS	RS/LDR	***
051W18DC01000	1066 HERMANSON ST	RS/OS	RS/LDR	***
051W18DC01100	1088 HERMANSON ST	RS/OS	RS/LDR	***
051W18DC04000	1112 HERMANSON ST	RS/OS	RS/LDR	***
051W18DC03900	1134 HERMANSON ST	RS/OS	RS/LDR	***
051W18DC03500	1200 HERMANSON ST	RS/OS,LDR	RS/LDR	***
051W18DC03800	1156 HERMANSON ST	RS/OS	RS/LDR	***
051W18DC03600	1192 HERMANSON ST	RS/OS,LDR	RS/LDR	***
051W18DC03700	1178 HERMANSON ST	RS/OS	RS/LDR	***
051W18D 00100	0	RS,RM/ OS,MDR	RM/MDR	Remove OS plan designation from private property and change RS zoning to be consistent with MDR plan designation.
051W19B 00100	765 S PACIFIC HY	RS/OS,LDR	RS/LDR	Remove OS plan designation from private property.
051W18D 00400	605 S PACIFIC HY	None/OS,MDR	None/MDR	***
051W19A 02200	765 S PACIFIC HY	RS,RM/ OS,LDR,MDR	RS,RM/ LDR,MDR	Remove OS plan designation from private property and use creek centerline as boundary between single-family and multi-family plan designation and zoning.
051W18DA02400	170 HAWLEY ST	RS,RM/ LDR,MDR	RS/LDR	Change plan designation and zoning to be consistent on entire parcel and to be consistent with use of property as single-family residence in a stable residential neighborhood.
051W18DA02000	1316 E CLEVELAND ST	RS/RM	RS/LDR	Change plan designation to be consistent with zoning and to be consistent with use of property as single-family residence in a stable residential neighborhood.
051W18DA01900	1332 E CLEVELAND ST	RS/RM	RS/LDR	***
051W18DA01800	1360 E CLEVELAND ST	RS/RM	RS/LDR	***
051W18DA01700	1370 E CLEVELAND ST	RS/RM	RS/LDR	***
051W18DA01202	0	RS,CG/COM	CG/COM	Change RS zoning to be consistent on entire parcel with plan designation.
051W18DA09300	275 S PACIFIC HY	RS,CG/ LDR,COM	RS,CG/ LDR,COM	Change boundary of RS zone to coincide with LDR plan designation boundary.
051W18DA01500	1430 E CLEVELAND ST	RS/COM	CG/COM	Change RS zoning to be consistent with plan designation.
051W18DA01400	1444 E CLEVELAND ST	RS/COM	CG/COM	***
051W18DA00400	1462 E CLEVELAND ST	RS/COM	CG/COM	***
051W18DA00600	1450 - 1458 E CLEVELAND ST	RS,CG/COM	CG/COM	***
051W18DA01300	0	RS,CG/COM	CG/COM	***
051W18DA00500	0	RS,CG/COM	CG/COM	***
051W18DA00100	105 S PACIFIC HY	RS,CG/COM	CG/COM	***
051W18DA00300	1468 E CLEVELAND ST	RS,CG/COM	CG/COM	***
051W18DA00700	145 S PACIFIC HY	RS,CG/COM	CG/COM	***
051W18DA01200	0	RS,CG/COM	CG/COM	***
051W18BA12400	0	P-SP,DDC/ OS,COM	P-SP/OS	Change commercial plan designation and zoning at northeast corner of property to reflect City ownership and use as a park.
051W18BA12600	200 OAK ST	RM/LDR	P-SP/OS	Change inconsistent LDR plan designation and RM zoning of property to reflect City ownership and use as a park.
051W18BA12500	212 OAK ST	DDC/COM	P-SP/OS	Change plan designation and zoning of property to reflect City ownership and use as a park.
051W18BA12700	294 OAK ST	RM/LDR	RS/LDR	Change zoning to be consistent with plan designation and use of property as single-family residence.
051W18BA12800	310 OAK ST	RM/LDR	RS/LDR	***
051W18BA12900	312 OAK ST	RM/LDR	RS/LDR	***
051W18BC02700	0	RS/OS	P-SP/OS	Change zoning of property to reflect City ownership and use as a park.
051W18BD03900	437 S FRONT ST	RS/LDR,OS	RS/LDR	Remove OS plan designation from private property.
051W18BC00200	0	RS/LDR,OS	RS/LDR	***
051W18BC02600	0	RS/OS	RS/LDR	***
051W18BC02500	512 S SETTLEMIER AV	RS/LDR,OS	RS/LDR	***
051W18BD03800	400 S 1ST ST	RS/LDR,OS	RS/LDR	***
051W18BD04000	449 S FRONT ST	RS/LDR,OS	RS/LDR	***
051W18BC00100	208 N 1ST ST	RS/LDR,OS	RS/LDR	***
051W18BC00300	500 N 1ST ST	RS/LDR,OS	RS/LDR	***

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TAXID	ADDRESS	EXISTING ZONING	PROPOSED ZONING	EXPLANATION
051W18BC04100	300 S SETTLEMIER AV	RS/LDR,OS	P-SP/PUB	Change plan designation and zoning of property to reflect City ownership and use as a public facility.
051W18BC02900	485 S SETTLEMIER AV	RS/LDR,OS	RS/LDR	Remove OS plan designation from private property.
051W18BC02800	503 S SETTLEMIER AV	RS/LDR,OS	RS/LDR	""
051W18BC04200	0	RS/LDR,OS	RS/LDR	""
051W18BC04300	555 S SETTLEMIER AV	RS/LDR,OS	RS/LDR	""
051W18BC04400	567 S SETTLEMIER AV	RS/LDR,OS	RS/LDR	""
051W18BC04600	597 S SETTLEMIER AV	RS/LDR,OS	RS/LDR	""
051W18BC04500	595 S SETTLEMIER AV	RS/LDR,OS	RS/LDR	""
051W18BC05900	487 BEN BROWN LN	RS/LDR,OS	RS/LDR	""
051W18BC05800	499 BEN BROWN LN	RS/LDR,OS	RS/LDR	""
051W18BC03900	700 SMITH DR	RS/LDR,OS	RS/LDR	""
051W18BC03800	670 SMITH DR	RS/LDR,OS	RS/LDR	""
051W18BC03100	520 SMITH DR	RS/LDR,OS	RS/LDR	""
051W18BC03700	650 SMITH DR	RS/LDR,OS	RS/LDR	""
051W18BC03600	630 SMITH DR	RS/LDR,OS	RS/LDR	""
051W18BC03500	610 SMITH DR	RS/LDR,OS	RS/LDR	""
051W18BC03400	590 SMITH DR	RS/LDR,OS	RS/LDR	""
051W18BC03300	570 SMITH DR	RS/LDR,OS	RS/LDR	""
051W18BC03200	550 SMITH DR	RS/LDR,OS	RS/LDR	""
051W18BC04000	105 BEN BROWN LN	RS, None/ LDR, OS	RS, None/LDR	""
052W13 00100	690 BEN BROWN LN	None/ LDR, RM, OS	None/LDR, RM	""
052W13 00103	863 HARVEST WY	RM/MDR, OS	RM/MDR	""
052W13 00600	828 PARR RD NE	P-SP/OS	P-SP/PUB	Change plan designation of property to reflect use as a public facility.
052W13 00500	440 - 450 PARR RD NE	RS/LDR	P-SP/PUB	Change plan designation and zoning of property to reflect public ownership and use as a school.
051W18CB07400	0	RS/LDR	P-SP/PUB	Change plan designation and zoning of property to reflect City ownership and use as excess right of way.
051W18CB07500	0	None/None	P-SP/PUB	Apply plan designation and zoning to property to reflect City ownership and use as excess right of way.
051W07CC08500	0	RS/LDR	P-SP/PUB	Change plan designation and zoning of property to reflect City ownership and use as a public facility.
051W07CA06500	0	RS/LDR	P-SP/PUB	Change plan designation and zoning of property to reflect City ownership and use as excess right of way.
051W07CD04500	731 W HAYES ST	RS, RM/ LDR, MDR	RM/MDR	Remove LDR plan designation and RS zoning to make entire parcel consistent with use of property as a private school and consistent with adjacent RM/MDR designations.
051W07CD03900	693 W HAYES ST	RS, RM/ LDR, MDR	RS/LDR	Remove MDR plan designation and RM zoning to make entire parcel consistent with use of property as a single-family residence and consistent with adjacent RS/LDR designations.
051W07CD02400	624 N SETTLEMIER AV	RM/LDR, MDR	RM/MDR	Remove LDR plan designation to make entire parcel consistent with MDR plan designation.
051W07CD02600	795 W LINCOLN ST	RM/LDR, MDR	RM/MDR	""
051W07CD02700	721 W LINCOLN ST	RM/LDR, MDR	RM/MDR	""
051W07CD02800	705 W LINCOLN ST	RM/LDR, MDR	RM/MDR	""
051W07CD02200	784 HARRISON ST	RS, RM/LDR	RS/LDR	Remove RM zoning to make entire parcel consistent with LDR plan designation.
051W07CD01800	680 HARRISON ST	RS, RM/LDR	RS/LDR	""
051W07CD01700	660 HARRISON ST	RS, RM/LDR	RS/LDR	""
051W07CD01600	648 HARRISON ST	RS, RM/LDR	RS/LDR	""
051W07CD06500	0	RS/OS	P-SP/OS	Change zoning to be consistent with plan designation and use as a City-owned park.
051W18BA06900	458 MONTGOMERY ST	RM/LDR	RS/LDR	Change zoning to be consistent with plan designation and use as a single-family residence.
051W07DC00300	0	RM/LDR	RS/LDR	Change zoning to be consistent with plan designation and use as a single-family residence.
051W07DC00400	1059 N FRONT ST	RM/LDR	RS/LDR	""
051W07DC00500	0	RM/LDR	RS/LDR	""

TAXLOT	STREET	EXISTING ZONE/PLAN	PROPOSED ZONE/PLAN	EXPLANATION
051W07DC00600	1053 N FRONT ST	RM/LDR	RS/LDR	***
051W07DC00700	1035 N FRONT ST	RM/LDR	RS/LDR	***
051W07DC00800	0	RM/LDR	RS/LDR	***
051W07DC01100	1009 N FRONT ST	RM/LDR	RS/LDR	***
051W07DC01200	961 N FRONT ST	RM/LDR	RS/LDR	***
051W07DC01600	900 N FRONT ST	RM/LDR	RS/LDR	***
051W07DC01700	903 N FRONT ST	RM/LDR	RS/LDR	***
051W07DC02100	867 N FRONT ST	RM/LDR	RS/LDR	***
051W07DC02200	853 N FRONT ST	RM/LDR	RS/LDR	***
051W07DC02600	811 N FRONT ST	RM/LDR	RS/LDR	***
051W07DC02900	799 N FRONT ST	RM/LDR	RS/LDR	***
051W07DC00100	0	RS,P-SP/LDR	P-SP/OS	Change plan designation and zoning to reflect City ownership and use as a park.
051W07DC00200	0	RS/LDR	P-SP/OS	***
				Change plan designation to be consistent with zoning and use of property as single-family residential. This property is part of a stable residential neighborhood.
051W07DB10900	1090 N 1ST ST	RS/MDR	RS/LDR	***
051W07DB10800	1108 N 1ST ST	RS/MDR	RS/LDR	***
051W07DB10700	1118 N 1ST ST	RS/MDR	RS/LDR	***
051W07DB10600	1128 N 1ST ST	RS/MDR	RS/LDR	***
051W07DB10500	1154 N 1ST ST	RS/MDR	RS/LDR	***
051W07DB10400	1200 N 1ST ST	RS/MDR	RS/LDR	***
051W07DB10300	1260 N 1ST ST	RS/MDR	RS/LDR	***
				Change inconsistent MDR plan designation and CG zoning to be consistent with use of property as a good quality single-family residence. Adjacent properties will also change because they are also good quality single-family residences. Because of small lot size and quality of residence, property is unlikely to develop with commercial uses within the 20-year planning horizon.
051W07DA01600	1129 N FRONT ST	CG/MDR	RS/LDR	***
				Change plan designation and zoning to be consistent with use of property as a good quality single-family residence. Adjacent properties will also change because they are also good quality single-family residences. Because of small lot size and quality of residence, property is unlikely to develop with commercial uses within the 20-year planning horizon.
051W07DA01000	1361 N FRONT ST	CG/COM	RS/LDR	***
051W07DA01100	1355 N FRONT ST	CG/COM	RS/LDR	***
051W07DA01200	1351 N FRONT ST	CG/COM	RS/LDR	***
051W07DA01300	1345 N FRONT ST	CG/COM	RS/LDR	***
051W07DA01400	1135 N FRONT ST	CG/COM	RS/LDR	***
051W07DA01500	1133 N FRONT ST	CG/COM	RS/LDR	***
				Change plan designation and zoning to multi-family residential use. Commercial building on property is relatively old and property is good candidate for redevelopment along with large vacant property to the east which is under the same ownership.
051W07DA00700	1365 N FRONT ST	CG/COM	RM/MDR	***
				Change plan designation and zoning to multi-family residential use. Property is a large vacant lot currently used for equipment storage with the commercial building to the east. Both properties are good candidates for redevelopment. Multi-family residential is appropriate because the property abuts existing multi-family and property configuration is better suited to development with multi-family uses than subdividing with single-family lots.
051W07DA00800	0	RS/LDR	RM/MDR	***
				Change plan designation and zoning to multi-family residential use. Property is developed with an older residence and because of its location adjacent to a larger area proposed for multi-family use, this property is better suited for multi-family use.
051W07DA00400	1455 N FRONT ST	RS/LDR	RM/MDR	***
051W07DA00300	1495 N FRONT ST	RS/LDR	RM/MDR	***
051W07DA00500	1425 N FRONT ST	RS/LDR	RM/MDR	***
051W07DA00600	1395 N FRONT ST	RS/LDR	RM/MDR	***
051W07DA00900	1290 N 1ST ST	RS/LDR	RM/MDR	***

Marion County Map



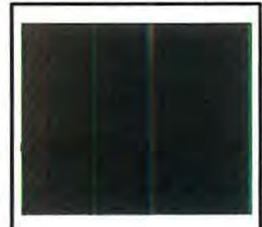
Legend

-  CITY LIMITS
- COMP PLAN**
-  PRIMARY AGRICULTURE
-  SPECIAL AGRICULTURE
-  FOREST
-  FARM/TIMBER
-  RURAL RESIDENTIAL
-  COMMERCIAL
-  INDUSTRIAL
-  PUBLIC AND SEMI-PUB...
-  COUNTY
-  STATE HWY



1in. = 44159ft.

Vicinity



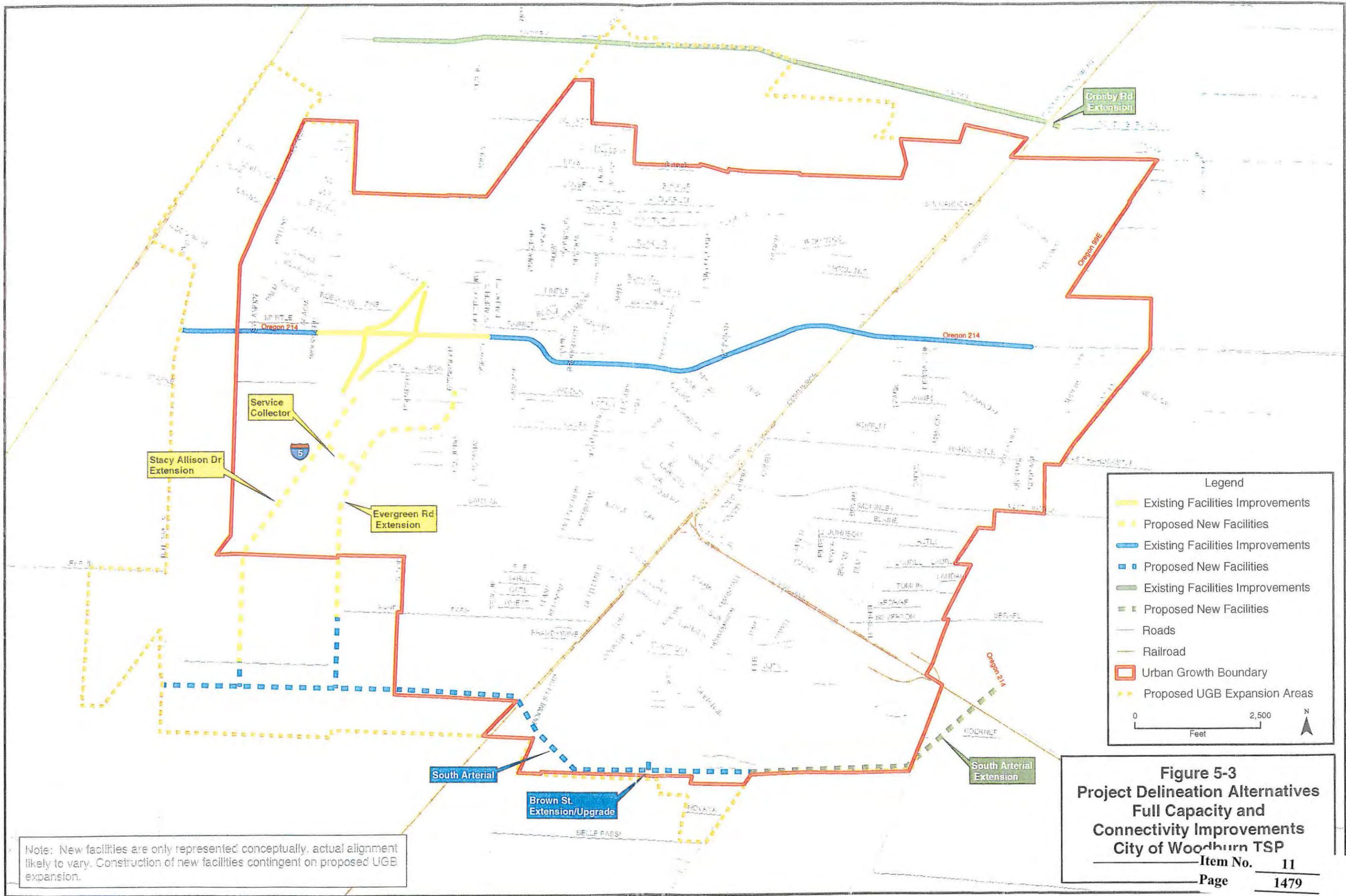
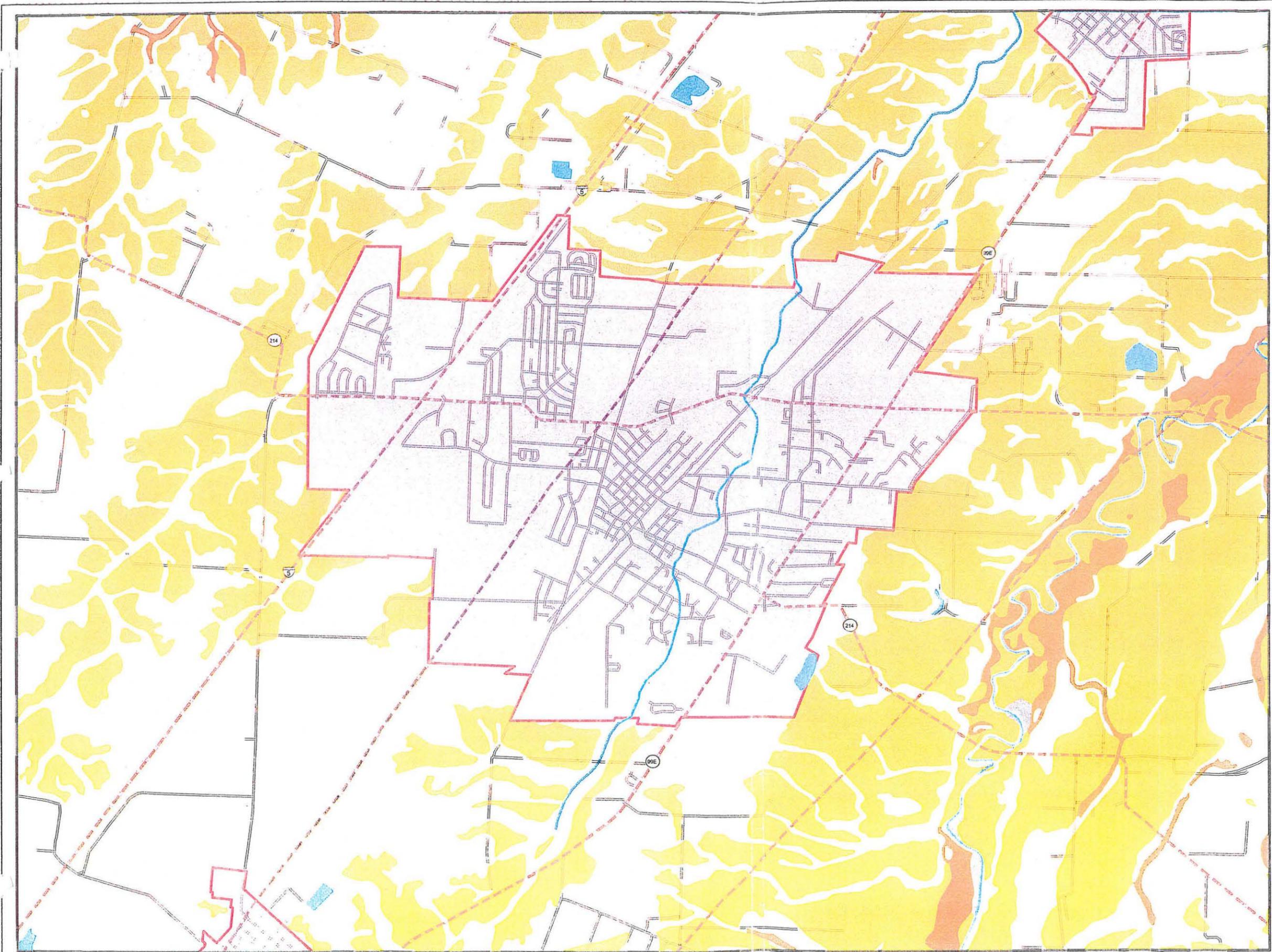


Figure 5-3
Project Delineation Alternatives
Full Capacity and
Connectivity Improvements
City of Woodburn TSP
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 Page 1479

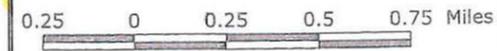
Note: New facilities are only represented conceptually, actual alignment likely to vary. Construction of new facilities contingent on proposed UGB expansion.

Woodburn Soils - Prime



Legend

-  Woodburn - UGB
-  Major Lakes
-  All areas are prime farmland
-  Prime where drained
-  Prime where irrigated
-  Prime where drained and protected from flooding
-  Major Highways
-  Census Roads (1:100k)
-  Major Rives/Streams

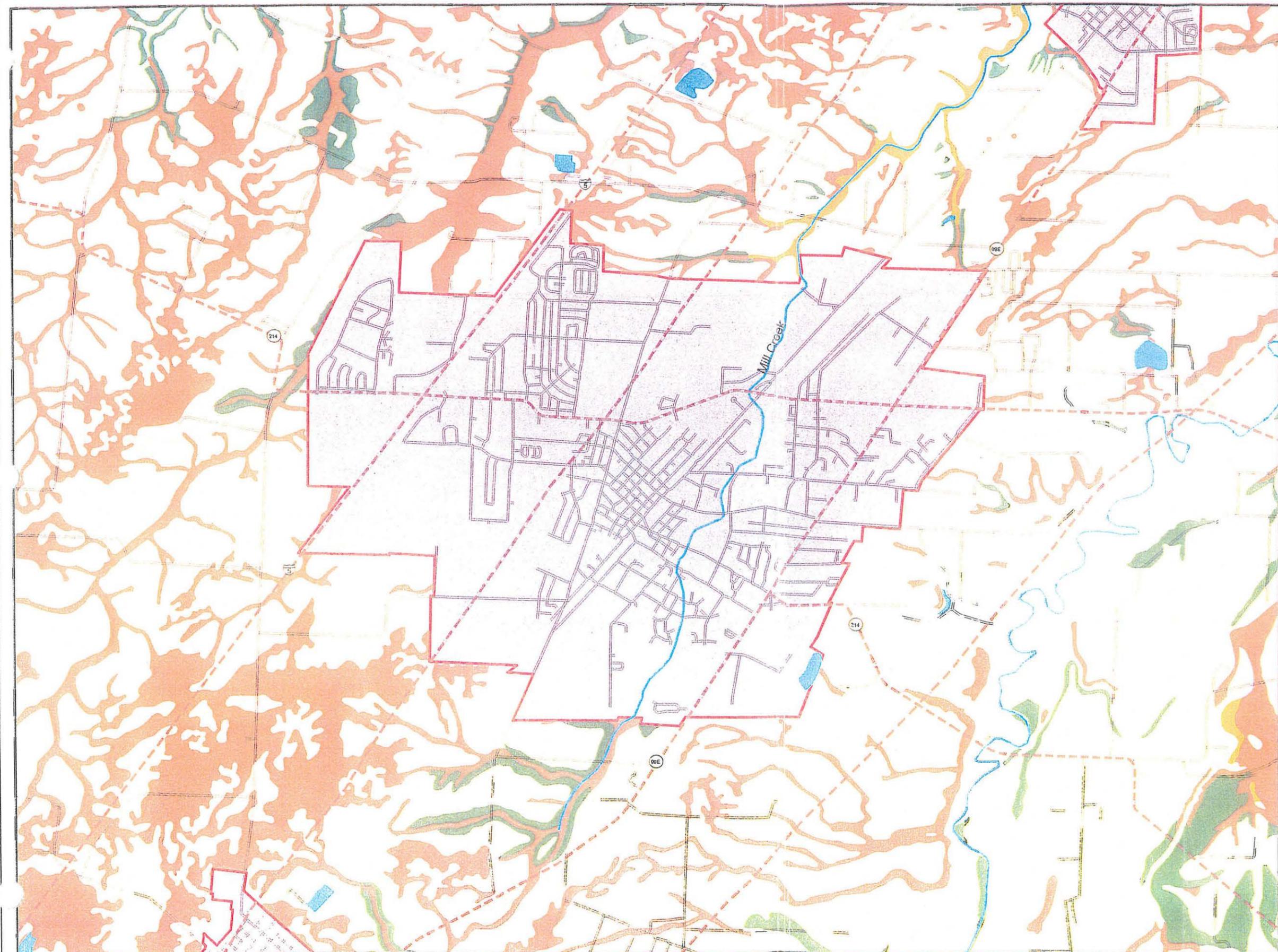


Source:
 NRCS SSurgo Soil
 Marion High Value Farmland
 Class 2 Not Irrigated
 OAR 660-33-020(8)(a)(B)

Natural Resources Division
 February 2, 2004
 Request 640

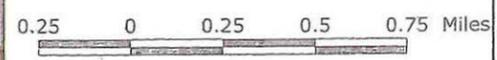
This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

Woodburn High Value Farmland Soils



Legend

- Woodburn - UGB
- Major Lakes
- Class 2 Not Irrigated
- Prime Not Irrigated
- Unique
- Willamette Valley Cropland Soils
- Major Highways
- Census Roads (1:100k)
- Major Rives/Streams

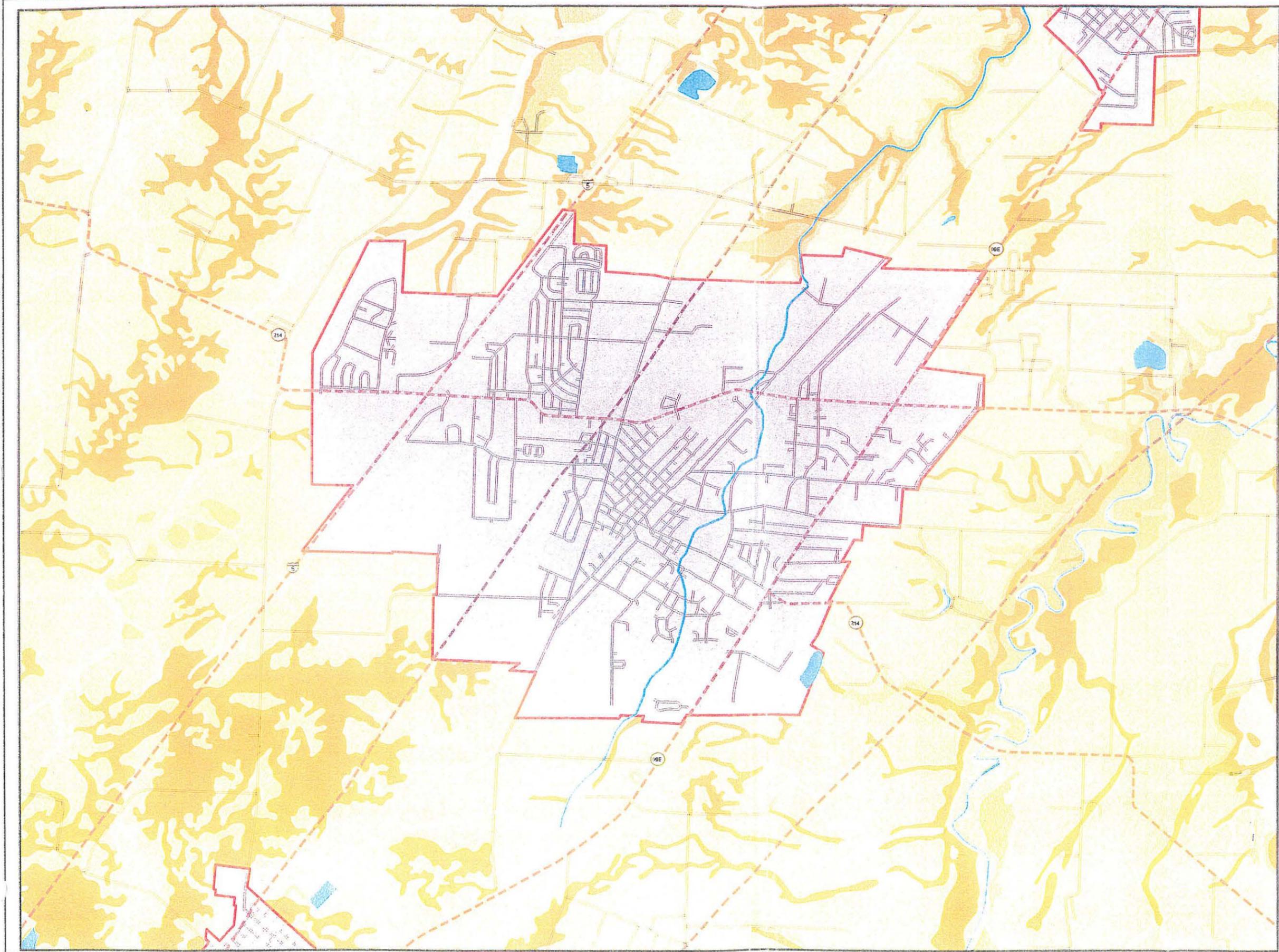


Source:
NRCS SSurgo Soil
Marion High Value Farmland
Class 2 Not Irrigated
OAR 660-33-020(8)(a)(B)

Natural Resources Division
February 2, 2004
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Woodburn Soils - Non-Irrigated



Legend

- Woodburn - UGB
- Major Lakes

Non-Irrigated Soils

- Class 1
- Class 2
- Class 3
- Class 4
- Class 5
- Class 6
- Class 7
- Class 8

- Major Highways
- Major Rives/Streams
- Census Roads (1:100k)



Source:
NRCS SSurgo Soil
Marion High Value Farmland
Class 2 Not Irrigated
OAR 660-33-020(8)(a)(B)

Natural Resources Division
February 2, 2004
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