



## **ANNUAL REPORT 2016-17**

### **TMDL Implementation Plan**



**Annual Report**  
**June 2016-June 2017**  
**Public Works Department**  
**City of Woodburn**  
**Prepared September 2017**

## **Purpose**

This document fulfills the requirement for annual reporting of progress in meeting long term goals of the City's Total Maximum Daily Load Implementation Plan (TMDL IP). Oregon Department of Environmental Quality (DEQ) approval of the TMDL IP requires the City to submit an annual report by the end of September.

The initial TMDL IP was submitted in 2009 and updated in 2012. The City submitted annual reports each of the subsequent years since 2009 and completed a comprehensive assessment of first five year cycle with the submittal of that report to DEQ in January of 2016. This report is to document progress made through the tracking of goals set forth in Woodburn's TMDL IP, with the updated 2015-2020 matrix, Appendix A.. The matrix identifies goals and best management practices for each pollutant. This report covers the reporting period from June 2016 through June 2017, this is the seventh annual reporting period and the second in the 2015-2020 five year cycle.

## **Background**

The goal of the Implementation Plan is to reduce heat, bacteria, mercury, pesticides, and iron contaminants from surface waters within the jurisdictional control of the City of Woodburn. The Plan provides a multi-faceted approach of land use ordinances, public operations, partnerships, and educational opportunities to deal with specific sources of contamination within the City's jurisdiction.

The Willamette River Basin TMDL, Molalla-Pudding River Sub-basin has established the parameters for bacteria, mercury, temperature, pesticides, and iron. DEQ created a Water Quality Management Plan (WQMP) for the Willamette River Basin TMDL in 2006; The Molalla-Pudding River Sub-basin WQMP was adopted in December 2008 by DEQ and the Environmental Protection Agency (EPA). The Plan provides the framework for management practices to attain and maintain water quality standards within the Willamette Basin. Per the WQMP, The City of Woodburn, being designated as a Designated Management Agency (DMA), submitted the TMDL Implementation Plan in June of 2010. The City updated the initial TMDL IP in March of 2012 to further address the six stormwater control measures. The 5-year TMDL Implementation Plan for 2015-2020 was submitted to DEQ for approval in January of 2016.

## **Regulatory Context**

This report is submitted to DEQ to satisfy the requirements of OAR 340-042-0080 (4) (a) (C) *Provide for performance monitoring with a plan for periodic review and revision of the implementation plan.* All DMAs are expected to implement the plan and revise it as needed.

## **Regulatory Requirements**

The Annual Report is required to include the progress and/or status of Woodburn's TMDL Implementation Plan's measurable goals. As documented in the TMDL IP, the City of Woodburn has chosen to use the TMDL Implementation Tracking Matrix as the tool for describing, tracking and reporting TMDL implementation efforts listed under its plan.

The attached implementation tracking matrix includes updates and progress in the status column for each strategy initially defined in the plan.

# Appendix A

## Matrix 1 Bacteria

<b>POLLUTANT: Bacteria</b>								
<b>SWMP BMP</b>	<b>SOURCE</b> <i>What source of this pollutant is being addressed</i>	<b>PRACTICE</b> <i>What is being done, or what will be done, to reduce and/or control pollution from this source?</i>	<b>HOW</b> <i>Specifically, how will this be done?</i>	<b>FISCAL ANALYSIS</b>	<b>MEASURE</b> <i>How successful implementation or completion of this practice be measured?</i>	<b>TIMELINE</b> <i>When will the practice be completed?</i>	<b>MILESTONE</b> <i>What intermediate goals will be achieved and by when, how to know what progress is being made</i>	<b>STATUS</b>
PE-1	Reduce inputs of bacteria	a. Educate homeowners on requirements and how to detect failures	i. Provide information on Website	Funded, Staff Time		Once every year for one/two months	Annual Participation	<i>Ongoing; Every year provided materials at Public Participation Events</i>
PE-2			ii. Provide info at City's booth at Public Works Week	No additional resources needed	Number of contacts	Once each year	Annual Participation	<i>Completed; Ongoing --Participated in 2011; 2013, 2014, 2015, and 2016 events. The event was cancelled in 2017. -Also participated in and provided information at other events such as, Day of the Child and Earth Day,</i>
PE-3			iii. Provide information in Water Newsletter	No additional resources needed	Number of contacts and follow up response	Ongoing	Annual Participation	<i>Completed, Ongoing: -Mailed information in 2010, 2011, and 2012 - Since 2015 we utilized the social media by a weekly electronic email sent to citizens who sign up to participate</i>

PE-4		a. Continue River Ranger Program	i. Animal waste topic is part educational program this has a back yard focus	Funded	Track contract numbers	Ongoing	Annual Participation	<i>Completed, Ongoing: River Ranger program performed several sessions at local schools</i>
PE-5		a. Public Outreach covering bacteria issues and concerns	i. Prepare resource list for the public. Storm water links to include local educational and regulatory resources	Funded, Staff time	Post on Website, Provide as handouts at community events	Ongoing	Continue to Update Webpage	<i>Completed, Ongoing: Have provided educational material at community events.</i>
PE-6			ii. Provide TMDL Implementation Plan for Public Review and Education	Funded, Staff time	Post on Website after DEQ approval. Mail electronic version to residents, RSS feed	Ongoing	Upon DEQ approval post updated 2015-2020 Matrix	<i>Completed, Ongoing: - 2012 Updated TMDL Plan Posted on City's website. Hard copy available at Public Works Annex. The 2015 – 2020 City's TMDL updated matrix will be posted once approved by DEQ.</i>
PE-7			iii. Earth Day Event, Provide education material on Protecting the Watershed	Funded, Staff time	Track Contact Numbers	Ongoing	Annual Participation	<i>Completed, Ongoing: Participated again April, 2017. Provided educational handouts on various water quality issues in regard to Storm Water, Drinking water and Wastewater Treatment and Collection. Provided tools to properly dispose of household grease, measure rainfall, irrigation, etc.</i>

PE-8			iv. Plant Tours, Provide education information in protecting the Watershed during Plant tours to Public	Funded, Staff time	Track Contact Numbers	Ongoing	Annual Participation	<i>Completed, Ongoing; Provided tours to all ages of Students, Citizens and various Service Groups. Provided education material as appropriate during tours.</i>
PI-1	1. Failing septic systems	a. Ensure repair of failing systems; City Ordinance prohibits the installation permits for new systems	i. Respond to reports of failing systems; work with homeowner to set a timeline for repair and connection to city wastewater	Funded, Staff time	Track # of reports, outcome of inspection (failing or not) and date of follow-up that confirmed repairs were made	Ongoing	Enforce practice	<i>Ongoing: We had no issues with on-site Septic systems to investigate this year. No new permits were issued for repair or installation of subsurface septic systems.</i>
PI 2	2. Bacteria carried to waterways in storm runoff	a. Prevent pet waste from reaching waterways	ii. Continue installation and maintenance of pet Waste Stations	Funded	Maintain stations and monitor bag supply	Ongoing	Have stations in all parks by end of 2018	<i>Ongoing; Currently installed in 80% of our Improved Parks. City has developed a Dog Park at Centennial Park which is heavily used and monitored; this reduces this type of activity in other City Parks. All stations are cleaned every day. Upon request temporary stations are installed on special events at different parks.</i>

PI-3			iii. Partnering with Schools and Community Organization in partnering in BMP execution	Funding depends on activity, Staff Time	Track Implementation of BMP	Ongoing	Annual Participation	<i>Complete Ongoing: BMP's for City maintenance activities complete. City continues to provide resources to and participating with the Pudding River Watershed Council and the Woodburn School System for a regional approach to water quality.</i>
PI-4		b. Prevent dumping into storm drains	iv. Storm inlet Marking (Do Not Dump Waste)	Funded	Number of Markers installed	Ongoing	Annually, Mark 20% of system	<i>Completed, Ongoing; -Purchase Storm Inlet markers every year. To be installed with development of mapping system structures with unique number for GIS. Installed approximately 200 markers.</i>
CS -1	Reduce Sediment from reaching waterways	Prevent material from reaching waterways	i. Conduct Staff Training in regard to current Regulatory requirement	Funded	Track Meeting and findings	Ongoing	Annual Participation	<i>Completed, Ongoing: Staff has been trained in the placement of sediment control practices such as silt fencing, bio-swales and buffers.</i>
CS -2			ii. Continue requiring DEQ 1200 Series Permits on construction sites.	Funded, Staff time	Track staff progress	Ongoing	Coordinate with Public Works Engineering Division	<i>Completed, Ongoing: Engineering Department coordinates and monitors with contractors on the requirements of the 1200 Series DEQ Permits</i>

CS-3		Erosion Control	iii. Develop and implement program to address erosion control for sites under one acre	Identify a Funding Source	Complete	2018 Ongoing	Complete task	<i>Ongoing, Continue effort to develop Erosion Control Program in addition to the 1200s series DEQ permits. All work sites are being monitored however through the issuance of a right of way permit.</i>
DS-1		Post Construction Flow Control	Modify/ develop plan/programs to incorporate Low Impact Development	Identify a Funding Source	Complete	2019 Ongoing	Complete task	<i>Ongoing, Continue efforts in developing low impact development. -During the plan review process Engineering promotes the use of LID methods. -Construction sites are being monitored.</i>
ID 1		c. Prevent human waste (from cross connections), oil, grease, paint, and other pollutants from entering the storm system	i. Continue Administration and public education of existing Sewer Use Ordinance No 2176	Funded, Staff time	Track issues and results	Ongoing	Annual Participation.	<i>Completed, Ongoing: Continuing education of public through participation at various outreach events. -</i>
ID 2			ii. Internal Training	Funded, Staff time	Conduct Training	Ongoing	Annual Participation	<i>Completed, Ongoing: Continue to develop and training of BMP's for various maintenance activities and sharing information with other maintenance sections.</i>
ID 3		Reinforce, Develop and implement Illicit discharge Program	Develop Regulatory Mechanism illicit discharge	Staff time	Implementation	Ongoing	Complete Task	<i>Ongoing: Continued effort to reinforce current Illicit Discharge Ordinances, Program,</i>



OM-1			iii. Inlet Cleaning	Funded, Staff time	Track Progress	Ongoing	Annually Clean 15% of City storm sewer system	<i>Completed, Ongoing, Cleaned and inspected approximately 200 Inlets catch basins.</i>
OM-2			iv. Storm Drain Pipe and Culvert Cleaning	Funded, Staff time	Track Progress	Ongoing	Annually Clean 15% of City storm sewer system	<i>Completed, Ongoing: Cleaned, maintained, and mapped 25,000 lineal feet of Storm Sewer pipe. Cleaned and Maintained inlets/outlets of existing culverts or pipes discharging into waterways.</i>
OM-3			v. Street Sweeping	Funded	Track Progress	Ongoing	Clean all Streets within City Jurisdiction monthly	<i>Completed, Ongoing: Streets swept monthly by contract with outside vendor. In addition the contract sweeping, City forces sweep in the fall during heavy leaf season as needed.</i>
OM-4		Map/GIS System	vi. Continue Efforts in Mapping and GIS Effort of existing Storm Water System	Funded, Staff time	Complete new system mapping annually	Ongoing	Complete, continue to Update Mapping	<i>Ongoing, Mapping storm water system as cleaned, Updating current GIS map.</i>
OM-5		Continue I & I program as required by the Current NPDES permit	vii. Continue efforts to identify cross connections between the Sanitary and Storm sewer collection system	Funded, Staff time	Corrections, inflow removal	Ongoing	Annual program	<i>Completed, Ongoing: Completed I&amp;I Report and submit to DEQ Annually.</i>
OM-6		Public Works Staff Training	viii. Implement Internal Training in preventing/reducing Bacteria	Funded, Staff time	Conduct Training	Ongoing	Annual Participation	<i>Completed, Ongoing: Continue to develop and train staff on BMP's for public works maintenance activities.</i>

***Matrix 2 Mercury***

<b><i>POLLUTANT: Mercury</i></b>								
<b>SWMP BMP</b>	<b>SOURCE</b> <i>What source of this pollutant is being addressed</i>	<b>PRACTICE</b> <i>What is being done, or what will be done, to reduce and/or control pollution from this source?</i>	<b>HOW</b> <i>Specifically, how will this be done?</i>	<b>FISCAL ANALYSIS</b>	<b>MEASURE</b> <i>How successful implementation or completion of this practice be measured?</i>	<b>TIMELINE</b> <i>When will the practice be completed?</i>	<b>MILESTONE</b> <i>What intermediate goals will be achieved and by when, how to know what progress is being made</i>	<b>STATUS</b>
PE-1	Reduce Sediments delivered to waterways	a. Public Outreach covering mercury issues and concerns	i. Prepare resource list for the public. Storm water links to include local educational and regulatory resources	Funded, Staff time	Post on Website, Provide as handouts at community events	Ongoing	Continue to Update on Webpage	<i>Ongoing; Provided material at Public Participation Events.</i>
PE-2			ii. Continue River Ranger Program	Funded	Track contract numbers	Ongoing	Annual Participation	<i>Completed, Ongoing: River Ranger program performed several sessions at local schools.</i>

PE-3			iii. Provide TMDL Implementation Plan for Public Review and Education	Funded, Staff time	Post on Website after DEQ approval. Mail electronic version to residents, RSS feed	Ongoing	DEQ approval	<i>Completed: 2012 updated TMDL plans posted on website. Hard copy available at PW Annex.</i>
PE-4			iv. Earth Day Event, Provide education material on Protecting the Watershed	Funded, Staff time	Track Contact Numbers	Ongoing	Annual Participation	<i>Completed, Ongoing: Participated again April, 2017. Provided educational handouts on various water quality issues in regard to Storm Water, Drinking water and Wastewater Treatment and Collection. Provided tools to properly dispose of household grease, measure rainfall, irrigation, etc.</i>
PE-5			v. Plant Tours, Provide education information in protecting the Watershed during Plant tours to Public	Funded, Staff time	Track Contact Numbers	Ongoing	Annual Participation	<i>Completed, Ongoing; Provided tours to all ages of Students, Citizens and various Service Groups. Provided education material during tours.</i>
PI-1			i. Partnering with Schools and Community Organization in partnering in BMP execution	Funding depends on activity, Staff Time	Track Implementation of BMP	Ongoing	Annual Participation	<i>Ongoing: BMP's for City maintenance activities complete. City continues to provide resources to and participating with the Pudding River Watershed Council and the Woodburn School System for a regional approach to water quality. This year includes participation with the Pudding River Watershed Council in the SOLVE riverside cleanup of Mill Creek.</i>

PI-2			ii. Storm inlet Marking (Do Not Dump Waste)	Budget for fiscal year 2010/11	Number of Markers installed	Ongoing	Annually Mark 20% of the system	<i>Completed, Ongoing; -Purchased Storm Inlet Markers every year to be installed with development of mapping system structures with unique number of GIS. -Installed approximately 200 inlet markers in 2016.</i>
ID-1		a. Illicit Discharge Detection	i. Continue Education of local Dentistry offices through the Pre-treatment Program	Funded, Staff time	Continue Public Education, Contact new and dentist office at start up	Ongoing	Number contacts	<i>Completed, Ongoing; Industrial Pre-Treatment Coordinator continues to contact new and existing Dentists with BMP's</i>
ID-2			ii. Continue providing Hazardous Household Waste Event through the Pretreatment Program	Funded, Staff time	Continue participation and coordinating event with Marion County Public Works	Ongoing	Hold Event	<i>Completed, Ongoing: Event is not held locally every year, The event was not held last year.</i>
ID-3			iii. Continue administration and public education of exiting Sewer Use Ordinance No. 2176	Funded, Staff time	Track issues and results	Ongoing	Annual Participation	<i>Completed, Ongoing: This is mainly administered through our Wastewater Section, through our Industrial Waste Coordinator and Public Outreach.</i>
ID-4		Reinforce, Develop and implement Illicit discharge Program	Develop Regulatory Mechanism illicit discharge	Staff time	Implementation	Ongoing	Complete Task	<i>Ongoing: Continue effort to reinforce current Illicit Discharge Ordinances and Programs.</i>
CS -1		Prevent material from reaching waterways	i. Conduct Staff Training in regard to current Regulatory requirement	Funded	Track Meeting and findings	Ongoing	Coordinate with stakeholders	<i>Completed, Ongoing: Continue staff training of regulatory requirements for activities affecting waters of the state.</i>

CS -2			ii. Continue requiring DEQ 1200 Series Permits on construction sites.	Funded, Staff time	Track staff progress	Ongoing	Coordinate with Public Works Engineering Division	<i>Completed, Ongoing: Engineering Department coordinates and monitors with contractors on the requirements of the 1200 Series DEQ Permits.</i>
CS-3		Erosion Control	iii. Develop and implement program to address erosion control for sites under one acre	Identify a Funding Source	Complete	2018	Complete task	<i>Ongoing, Continue effort to develop Erosion Control Program in addition to the 1200s series DEQ permits. Job site are being monitored by Engineering Division through the issuance of a right of way permits.</i>
DS-1		Post Construction Flow Control	iv. Modify Develop plan/programs to incorporate Low Impact Development	Identify a Funding Source	Complete	2019	Complete task	<i>Ongoing, Continue efforts to incorporate Low Impact Development.</i>
OM-1		Map/GIS System	v. Continue Efforts in Mapping and GIS Effort of existing Storm Water System	Funded, Staff time	Complete new system mapping annually	Ongoing	Complete, Continue to Update Mapping	<i>Ongoing, Mapping storm water system as cleaned, updating current GIS map.</i>
OM-2		Public Works Staff Training	vi. Implement Internal Training in preventing/reducing Mercury	Funded, Staff time	Conduct Training	Ongoing	Annual Participation	<i>Completed, Ongoing: Continue to develop and train staff on BMP's for public works maintenance activities.</i>

**Matrix 3 Temperature**

<b>POLLUTANT: Temperature</b>								
<b>SWMP BMP</b>	<b>SOURCE</b> <i>What source of this pollutant is being addressed</i>	<b>PRACTICE</b> <i>What is being done, or what will be done, to reduce and/or control pollution from this source?</i>	<b>HOW</b> <i>Specifically, how will this be done?</i>	<b>FISCAL ANALYSIS</b>	<b>MEASURE</b> <i>How successful implementation or completion of this practice be measured?</i>	<b>TIMELINE</b> <i>When will the practice be completed?</i>	<b>MILESTONE</b> <i>What intermediate goals will be achieved and by when, how to know what progress is being made</i>	<b>STATUS</b>
PE-1	Increase effective shade through restoration protections and natural stream hydrology	a. Public Education	i. Provide information on Website	Funded, Staff Time		Once every year for one/two months	Continue to Update on Webpage	<i>Completed, Ongoing; Provided material to Public through outreach events and media.</i>
PE-2			ii. Provide info at City's booth at Public Works Week	No additional resources needed	Number of contacts	Ongoing	Annual Participation	<i>Event was cancelled in 2017. Participated in and provided information at other events such as, Day of the Child and Earth Day,</i>

PE-3			iii. Provide information in Water Newsletter	No additional resources needed	Number of contacts and follow up response	Ongoing	Annual Participation	<i>Completed, Ongoing, Provide yearly information in water newsletter and social media.. We utilized the social media by a weekly electronic email sent to citizens who sign up to participate.</i>
PE-4			iv. Continue River Ranger Program	Funded	Track contract numbers	Ongoing	Annual Participation	<i>Completed, Ongoing: Presented River Ranger program to Woodburn Schools and community events.</i>
PE-5			v. Earth Day Event, Provide education material on temperature reduction	Funded, Staff time	Track Contact Numbers	Ongoing	Annual Participation	<i>Completed, Ongoing: Participated again April, 2017. Provided educational handouts on various water quality issues in regard to Storm Water, Drinking water and Wastewater Treatment and Collection. Provided tools to properly dispose of household grease, measure rainfall, irrigation, etc.</i>

PE-6			vi. Wastewater Treatment Plant Tours, Provide education on City efforts on reducing temperature	Funded, Staff time	Track Contact Numbers	Ongoing	Annual Participation	<i>Completed, Ongoing; Provided tours to all ages of Students, Citizens and various Service Groups. Provided education material during tours.</i>
CS-1	1. Water Resources Activity	a. Enhance degraded riparian area along Mill Creek	i. Mitigate degraded riparian areas, provide riparian restoration, wetlands	Not Funded at this time	Degraded Areas will be restored to provide cooling along with nutrient Removal and toxics removal	2020	Identify Funding Source	<i>We no longer have dedicated funding for the Water Resources Activity, as we move forward with Wyffels Park, we will pursue other funding opportunities.</i>
DS-1	Solar Radiation	a. Administer Woodburn Development Ordinance 2313	i. Continue implementation of the Riparian Corridor and Wetlands Overlay District	Funded, Staff time	Number of Applications and enforcement	Ongoing	Protection of existing Riparian areas, ongoing	<i>Completed, Ongoing: Current Ordinance Being followed, in addition, discontinued maintenance practice of vegetation removal in waterways and other than obnoxious species.</i>
OM-1		Public Works Staff Training	i. Implement internal training in preventing/reducing Temperature	Funded, Staff time	Conduct Training	Ongoing	Annual Participation	<i>Completed, Ongoing: Continue to develop and train staff on BMP's for public works maintenance activities.</i> -



**Matrix 4 Pesticides**

<b>POLLUTANT: Pesticides</b>								
<b>SWMP BMP</b>	<b>SOURCE</b> <i>What source of this pollutant is being addressed</i>	<b>PRACTICE</b> <i>What is being done, or what will be done, to reduce and/or control pollution from this source?</i>	<b>HOW</b> <i>Specifically, how will this be done?</i>	<b>FISCAL ANALYSIS</b>	<b>MEASURE</b> <i>How successful implementation or completion of this practice be measured?</i>	<b>TIMELINE</b> <i>When will the practice be completed?</i>	<b>MILESTONE</b> <i>What intermediate goals will be achieved and by when, how to know what progress is being made</i>	<b>STATUS</b>
PE-1	Pesticides associated with precipitation, higher stream flows and pipe systems and erosion	a. Public Outreach covering pesticide issues and concerns	i. Prepare resource list for the public. Storm water links to include local educational and regulatory resources	Funded, Staff time	Post on Website, Provide as handouts at community events	Ongoing	Continue to Update on Webpage	<i>Completed, Ongoing; -2010 Developed website format. - Provided material at Public Participation Events -Hard copy available at Public Works Annex.</i>
PE-2			ii. Continue River Ranger Program	Funded	Track contract numbers	Ongoing	Annual Participation	<i>Completed, Ongoing: River Ranger program performed a number of sessions at the local schools.</i>

PE-3			iii. Provide TMDL Implementation Plan for Public Review and Education	Funded, Staff time	Post on Website after DEQ approval. Mail electronic version to residents, RSS feed	Ongoing	DEQ approval	<i>Completed: Plan is posted on website. Hard Copy available at PW Annex.</i>
PE-4			iv. Earth Day Event, Provide education material on Protecting the Watershed	Funded, Staff time	Track Contact Numbers	Ongoing	Annual Participation	<i>Completed, Ongoing: Participated again April, 2017. Provided educational handouts on various water quality issues in regard to Storm Water, Drinking water and Wastewater Treatment and Collection. Provided tools to properly dispose of household grease, measure rainfall, irrigation, etc.</i>
PE-5			v. Provide education information in protecting the Watershed during Plant tours to Public	Funded, Staff time	Track Contact Numbers	Ongoing	Annual Participation	<i>Completed, Ongoing; Provided tours to all ages of Students, Citizens and various Service Groups. Provided education material during tours.</i>

PI-1			vi. Partnering with Schools and Community Organization in BMP execution	Funding depends on activity, Staff Time	Track Implementation of BMP	Ongoing	Annual Participation	<i>Ongoing: BMP's for City maintenance activities complete. City is currently providing resources to and participating with the Pudding River Watershed Council and the Woodburn School System for a regional approach to water quality. This year includes participation with the Pudding River Watershed Council in the SOLVE riverside cleanup of Mill Creek.</i>
PI-2			vii. Storm inlet Marking (Do Not Dump Waste)	Budget for fiscal year 2010/11	Number of Markers installed	Ongoing	Mark 20% of the Storm Sewer System	<i>Completed, Ongoing; -Purchased storm inlet markers every year. To be installed with development of mapping system structures with unique number for GIS. - Installed approximately 200 inlet markers in 2016.</i>

ID-1		a. Illicit Discharge Detection	i. Continue administration and public education of exiting Sewer Use Ordinance No. 2176	Funded, Staff time	Track issues and results	Ongoing	Quantify incidents, actions, results	<i>Completed, Ongoing: This is mainly administered through our Wastewater Section, through our Industrial Waste Coordinator and Public Outreach.</i>
ID-2		Reinforce, Develop and implement Illicit discharge Program	Develop Regulatory Mechanism illicit discharge	Staff time	Implementation	Ongoing	Complete Task	<i>Ongoing: Continue effort to reinforce current Illicit Discharge Ordinances and Programs.</i>
CS -1		Prevent material from reaching waterways	i. Conduct Staff Training in regard to current Regulatory requirement	Funded	Track Meeting and findings	Ongoing	Annual Participation	<i>Completed, Ongoing: Continue staff training of regulatory requirements for activities affecting waters of the state.</i>
CS -2			ii. Continue requiring DEQ 1200 Series Permits on construction sites.	Funded, Staff time	Track staff progress	Ongoing	Coordinate with Public Works Engineering Division	<i>Completed, Ongoing: Engineering Department coordinates and monitors with contractors on the requirements of the 1200 Series DEQ Permits.</i>

CS-3		Erosion Control	iii. Develop and implement program to address erosion control for sites under one acre	Identify Funding Source	Complete	2018	Complete task	<i>Ongoing, Continue effort to develop Erosion Control Program in addition to the 1200s series DEQ permits. Sites are being monitored however through the issuance of a right of way permits. City's requirements follows the current Oregon Standard Specifications for Constructions for all projects in addition to the 1200 series DEQ permits.</i>
DS-1		Post Construction Flow Control	iv. Modify Develop plan/programs to incorporate Low Impact Development	Identify Funding Source	Complete	2019	Complete task	<i>Ongoing: Will continue efforts in developing low impact development. Job sites are being monitored.</i>
OM-1		Map/GIS System	v. Continue Efforts in Mapping and GIS Effort of existing Storm Water System	Funded, Staff time	Complete new system mapping annually	Ongoing	Complete, Continue to Update Mapping	<i>Ongoing: mapping storm water system as cleaned, updating current GIS map.</i>
OM-2		Public Works Staff Training	vi. Implement Internal Training in preventing/reducing Pesticides	Funded, Staff time	Conduct Training	Ongoing	Annual Participation	<i>Completed, Ongoing: Continue to develop and train staff on BMP's for public works maintenance activities.</i>

**Matrix 5 Iron**

<b>POLLUTANT: Iron</b>								
<b>SWMP BMP</b>	<b>SOURCE</b> <i>What source of this pollutant is being addressed</i>	<b>PRACTICE</b> <i>What is being done, or what will be done, to reduce and/or control pollution from this source?</i>	<b>HOW</b> <i>Specifically, how will this be done?</i>	<b>FISCAL ANALYSIS</b>	<b>MEASURE</b> <i>How successful implementation or completion of this practice be measured?</i>	<b>TIMELINE</b> <i>When will the practice be completed?</i>	<b>MILESTONE</b> <i>What intermediate goals will be achieved and by when, how to know what progress is being made</i>	<b>STATUS</b>
PE-1	Iron associated with precipitation, higher stream flows and pipe systems and erosion	a. Public Outreach covering Iron issues and concerns	i. Prepare resource list for the public. Storm water links to include local educational and regulatory resources	Funded, Staff time	Post on Website, Provide as handouts at community events	Ongoing	Continue to Update on Webpage	<i>Ongoing; Provided material at Public Participation Events and web site.</i>
PE-2			ii. Continue River Ranger Program	Funded	Track contract numbers	Ongoing	Annual Participation	<i>Completed, Ongoing: River Ranger program performed several sessions at local schools</i>
PE-3			iii. Provide TMDL Implementation Plan for Public Review and Education	Funded, Staff time	Post on Website after DEQ approval. Mail electronic version to residents, RSS feed	Ongoing	DEQ approval	<i>Completed: 2012 updated Plan is posted on website. Hard Copy available at PW Annex.</i>

PE-4			iv. Earth Day Event, Provide education material on Protecting the Watershed	Funded, Staff time	Track Contact Numbers	Ongoing	Annual Participation	<i>Completed, Ongoing; Participated again April, 2017. Provided educational handouts on various water quality issues in regard to Storm Water, Drinking water and Wastewater Treatment and Collection. Provided tools to properly dispose of household grease, measure rainfall, irrigation, etc.</i>
PE-5			v. Plant Tours, Provide education information in protecting the Watershed during Plant tours to Public	Funded, Staff time	Track Contact Numbers	Ongoing	Annual Participation	<i>Completed, Ongoing; Provided tours to all ages of Students, Citizens and various Service Groups. Provided education material during tours</i>

PI-1			vi. Partnering with Schools and Community Organization in partnering in BMP execution	Funding depends on activity, Staff Time	Track Implementation of BMP	Ongoing	Annual Participation	<i>Ongoing: BMP's for City maintenance activities complete. City continues to provide resources to and participating with the Pudding River Watershed Council and the Woodburn School System for a regional approach to water quality. This year includes participation with the Pudding River Watershed Council in the SOLVE riverside cleanup of Mill Creek.</i>
PI-2			vii. Storm inlet Marking (Do Not Dump Waste)	Funded, Staff Time	Number of Markers installed	Ongoing	Annually , Mark 20% of the system	<i>Completed, Ongoing; Purchased Storm Inlet Markers every year. To be installed with development of mapping systems structures with unique number for GIS. Installed approximately 200 inlet markers in 2016</i>
ID-1		a. Illicit Discharge Detection	i. Continue administration and public education of exiting Sewer Use Ordinance No. 2176	Funded, Staff time	Track issues and results	Ongoing	Quantify incidents, actions, results	<i>Completed, Ongoing: This is mainly administered through our Wastewater Section, through our Industrial Waste Coordinator and Public Outreach.</i>



ID-2		Reinforce, Develop and implement Illicit discharge Program	Develop Regulatory Mechanism illicit discharge	Staff time	Implementation	Ongoing	Complete Task	<i>Ongoing: Continue effort to reinforce current Illicit Discharge Ordinances and Programs.</i>
CS -1		Prevent material from reaching waterways	i. Conduct Staff Training in regard to current Regulatory requirement	Funded	Track Meeting and findings	Ongoing	Annual Participation	<i>Completed, Ongoing: Continue staff training of regulatory requirements for activities affecting waters of the state.</i>
CS -2			ii. Continue requiring DEQ 1200 Series Permits on construction sites.	Funded, Staff time	Track staff progress	Ongoing	Coordinate with Public Works Engineering Division	<i>Completed, Ongoing: Engineering Department coordinates and monitors with contractors on the requirements of the 1200 Series DEQ Permits</i>
CS-3		Erosion Control	iii. Develop and implement program to address erosion control for sites under one acre	Identify a Funding Source	Complete	2018 Ongoing	Complete task	<i>Ongoing, Continue effort to develop Erosion Control Program in addition to the 1200s series DEQ permits. Sites are being monitored however through the issuance of a right of way permit. City's requirements follows the current Oregon Standard Specifications for Construction for all projects in addition to the 1200 series DEQ permits.</i>

DS-1		Post Construction Flow Control	iv Modify Develop plan/programs to incorporate Low Impact Development	Identify a Funding Source	Complete	2019	Complete task	<i>Ongoing: Will continue efforts in developing low impact development.</i>
OM-1		Map/GIS System	v Continue Efforts in Mapping and GIS Effort of existing Storm Water System	Funded, Staff time	Complete new system mapping annually	Ongoing	Complete, Continue to Update Mapping	<i>Ongoing: Mapping storm water system as cleaned, updating current GIS map.</i>
OM-2		Public Works Staff Training	vi Implement Internal Training in preventing/reducing Iron	Funded, Staff time	Conduct Training	Ongoing	Annual Participation	<i>Completed, Ongoing: Continue to develop and train staff on BMP's for public works maintenance activities.</i>

Matrix 6 Management Strategies

<b>MANAGEMENT STRATEGY</b>								
<b>SWM P BMP</b>	<b>SOURCE</b> <i>What source of this pollutant is being addressed</i>	<b>PRACTICE</b> <i>What is being done, or what will be done, to reduce and/or control pollution from this source?</i>	<b>HOW</b> <i>Specifically, how will this be done?</i>	<b>FISCAL ANALYSIS</b>	<b>MEASURE</b> <i>How successful implementation or completion of this practice be measured?</i>	<b>TIMELINE</b> <i>When will the practice be completed?</i>	<b>MILESTONE</b> <i>What intermediate goals will be achieved and by when, how to know what progress is being made</i>	<b>STATUS</b>

DS-1	Development and implementation of post – construction guideline manual for meeting predevelopment hydrology	Prevent material from reaching waterways	Updated the City’s Storm Drainage Master Plan to include the requirements for control post-development peak runoff rates per City’s guidelines	Identify a Funding Source	City’s Storm Drainage Master Plan requires detention facility to have a post-development 25-year capacity with discharge orifice sized to limit outflow to no more than the undeveloped site peak run off for the existing 5-year frequency storm.	2019	Coordinate with Public Works Engineering Division	<i>Ongoing; City’s Storm Drainage Master Plan will be update in the near future.</i>
DS-2	Inventory of riparian vegetation within City or County jurisdiction to establish baseline conditions and priorities for restoration	Maintain riparian vegetation	Find funding to create riparian natural resource inventory.	Identify a Funding Source	Create and maintain an inventory of existing vegetation	2017	Mapping and entering into a GIS format.	<i>Ongoing; City’s plan is create a riparian program to maintain an inventory of existing vegetation to establish baseline conditions.</i>
DS-3	Complete at least one riparian restoration project or implement strategy to preserve existing riparian vegetation.	Protect/maintain Riparian vegetation	Find funding for a riparian restoration program. Possible partnering with Pudding River Watershed Council	Identify a Funding Source	Implement a program to preserve existing vegetation remove invasive species and restore areas with native shrubs and trees.	2017	Protection of existing riparian areas, ongoing.	<i>Ongoing; Two drainage areas were cleaned/maintained this year, one at the end of Progress Way and another by Ben Brown Lane.</i>

**Six Minimum Control Measures**

PE – Public Education

PI – Public Involvement/Participation

ID – Illicit Discharge

CS – Construction Site Runoff Control

DS – Development Standards

OM – Operations and Maintenance