

**TMDL Implementation Plan
Guidance – 5th Year Review Report Template for City
and County Designated Management Agencies**

December 2012



State of Oregon
Department of
Environmental
Quality



Disclaimer

This guidance document should not be construed as a requirement of rule or statute. This guidance document was developed to assist Designated Management Agencies(DMAs) with report preparation, and is designed to meet the following goals:

- **Report Acceptance:** Outline the elements that need to be in the report so DEQ reporting expectations are met.
- **Education & Outreach:** Provide DMAs with a review about what TMDLs are and the strategies that work to improve water quality.
- **Strategy Matrix-**Assist DMAs with generating a strategy matrix for the next 5 year cycle of TMDL implementation.
- **Public Involvement-** Promote the importance of TMDL implementation, which includes stormwater management to protect water quality, within your jurisdiction.

Contributor Recognition

(Placeholder for future additions)

Guidance Template Review and Recommendations

DEQ: Bill Meyers & Heather Tugaw, Medford; Don Yon, Headquarters; Nancy Gramlich, Salem

Appendix A Checklist

DEQ: Doug Drake, Pam Blake, Avis Newell, Karen Williams Pamela Wright,
Cities: Keizer, Newberg, Turner

Feedback and Fillable Functionality

Cities: Keizer, Canby

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Preview

Introduction

As identified in OAR 340-042-0080, Total Maximum Daily Load (TMDL) Implementation Plan acceptance by DEQ was based on the TMDL Implementation Plan containing and acknowledging the following reporting and performance components:

1. Reasonable assurance that plan will be implemented.
2. Developed timeline, with reference to costs and funding, for implementing TMDL management strategies (implementation and completion dates).
3. Proposed performance monitoring plan for confirming implementation of strategies and success of strategies in meeting TMDL reductions for applicable parameters (ex., temperature, mercury, and bacteria).
 - a) Submittal of annual reports for describing progress on implementing strategies that were selected for pollutant load allocations/reductions in the TMDL Implementation Plan.
4. Submittal of a 5th year evaluation report for describing implementation progress and the effectiveness of the strategies implemented during the preceding 4 years in meeting the parameter reductions. Plan adaptation and revisions based on the annual and 5th year periodic report reviews if it is determined that the plan is not effective in meeting parameter load allocations/reductions.

Purpose

- **Background** – The 5th year review does not require additional monitoring or measurements. Use existing data and information to evaluate plan implementation and effectiveness relative to pollution reduction goals. The report should describe what information was used in the evaluation, the outcome of the evaluation and the basis for this reasoning.
- **Report Template** – This document captures the elements that should be included in the report, and provides examples for how to capture the minimum elements. This document is designed for use as the template for report submittal.
- **TMDL Implementation** – TMDL implementation is a five year cycle, that starts with the first plan due date. This document is designed to assist you with documenting strategy implementation for the next five year cycle of TMDL implementation.

Assistance, Additional Information, and Questions

Contact your DEQ TMDL Program Basin Coordinator at:

<http://www.deq.state.or.us/wq/tmdls/docs/basincoordinators.pdf>

Part I: Cover Page

Please provide the general and contact information below.

General Information:

TMDL Implementation Plan First Due Date (MM/DD/YY): _____

TMDL Implementation Plan First Approval Date (MM/DD/YY): _____

This is the 1st 2nd 3rd Other 5th year report submittal.

Designated Management Agency Name _____

County _____

TMDL Basin _____

Please check the Subbasin(s) within your Jurisdiction: Coast Fork McKenzie
 Middle Fork Middle Willamette North Santiam Pudding South Santiam
 Upper Willamette

Receiving Subbasin Waterbody(s) within your Jurisdiction: _____

Population based on 2010 Census or MS4 Status (Please check appropriate category):

- | | |
|--|---|
| <input type="checkbox"/> <500 | <input type="checkbox"/> >=10,000 Stormwater Six Control Measures |
| <input type="checkbox"/> 500 -<1000 | <input type="checkbox"/> City MS4 Phase II |
| <input type="checkbox"/> 1,000-<5000 | <input type="checkbox"/> County MS4 Phase II |
| <input type="checkbox"/> 5,000-<10,000 | <input type="checkbox"/> City MS4 Phase I |

Population per square mile _____

TMDL Contact Information for City or County:

Name _____

Title _____

Address _____ Zip Code _____

Telephone _____

Email address _____

Part II: Report Sections and Checklists

1. Please review Table 1 below. Table 1 summarizes, for each TMDL parameter, the general sources that impact water quality and strategies for improving water quality.

Table 1: TMDL General Sources and Management Strategies

TMDL Parameter	General Sources	General Strategies/ Best Management Practices(BMPs)
Bacteria	Bacteria are carried to waterways in stormwater, overland flow, and pipes systems.	Reduce inputs of bacteria by various means including riparian protection, erosion control and stormwater control and treatment, low impact development, septic maintenance and various domestic and agricultural practices.
Dissolved Oxygen	In-stream sediment from runoff and stream bank erosion and high nutrient loads.	Reduce sediment delivered to streams by various means including riparian protection, erosion control and stormwater control and treatment, low impact development and reduce nutrient loads.
Iron	Iron is naturally occurring, but high iron concentrations are associated with rain, higher stream flows, and bank erosion.	Reduce sediment delivered to streams by various means including riparian protection, erosion control and stormwater control and treatment, low impact development.
Mercury	In-stream sediment from runoff and stream bank erosion; air deposition.	Same as Iron.
Legacy Pesticides	In-stream sediment from runoff and stream bank erosion.	Same as Iron.
Nitrates	Delivery of excess nutrients to groundwater and surface water.	Manage fertilization and irrigation to reduce excessive addition of nitrate to groundwater and runoff; maintain septic systems.
Temperature	Removal of trees and other shade-producing woody vegetation from stream banks. Wastewater discharges also contribute to stream heating.	Increase effective shade through restoration and protections; Restore natural stream hydrology and cool water refuges; Increase natural stream flow.
Turbidity	In-stream sediment from runoff and stream bank erosion and high nutrient loads.	Same as iron and reduce nutrient loads.

Part II: Report Sections and Checklists Continued

2. Please review Table 2 below. Table 2 summarizes the nonpoint source TMDL load allocations for the Subbasins, or specific streams. Load allocations are the percent reductions or targets needed to meet water quality standards. Acknowledge, by checking, the percent reductions in Table 2 that apply to the Subbasin(s), or specific streams, within your jurisdictional boundaries for improving water quality.

Table 2: Nonpoint Source Urban/Rural TMDL Reductions

Subbasin	Parameter Reductions
Coast Fork	Bacteria: <input type="checkbox"/> Coast Fork 303(d) listing removal, with continuation of strategy implementation for other TMDLs and the 80% Willamette basinwide average
Coast Fork McKenzie Middle Fork Middle Willamette North Santiam Pudding South Santiam Upper Willamette	Mercury: <input type="checkbox"/> 27% Willamette Basinwide-All Subbasins Temperature: <input type="checkbox"/> Attainment and preservation of effective shade levels on smaller tributaries associated with system potential vegetation will eliminate most anthropogenic nonpoint source heat loads. 91% thermal pollution is from nonpoint sources. Surrogate measure is percent effective shade targets and a heat load equivalent of 0.05 °C of the Human Use Allowance. Other important measures— preserving and restoring cool water refuges where salmonids rear and migrate to when the river warms up in the summer; restore instream flow quantity.
McKenzie	Bacteria: <input type="checkbox"/> 80% to 94%
Middle Willamette	Bacteria: <input type="checkbox"/> 88% summer <input type="checkbox"/> 75% fall-winter-spring and Middle Willamette Specific Tributaries <input type="checkbox"/> 81% Mill Creek Turner Road <input type="checkbox"/> 79% Pringle Creek at Pringle Park/Church Street <input type="checkbox"/> 89% Clark Creek at Mouth Bush Park
North Santiam	Bacteria: <input type="checkbox"/> 80% to 94%
Pudding	Bacteria: <input type="checkbox"/> 75% to 87% summer <input type="checkbox"/> 70% to 92% fall-winter-spring Iron: <input type="checkbox"/> 19% to 96% based on stream flow Legacy Pesticides: <input type="checkbox"/> Pudding River and Tributaries 30% DDT <input type="checkbox"/> Pudding River and Tributaries 90% Dieldrin <input type="checkbox"/> Pudding River In stream total suspended solids targets (15 mg/L) Nitrates: <input type="checkbox"/> Zollner Creek and Tributaries 10 mg/l criterion met based on stream flow
South Santiam	Bacteria: <input type="checkbox"/> 80% to 94%
Upper Willamette	Bacteria: <input type="checkbox"/> 65% Reduction Average Upper Willamette Specific <input type="checkbox"/> 77% Upper Long Tom <input type="checkbox"/> 84% Upper Amazon <input type="checkbox"/> 33% A-3 Drain Dissolved Oxygen: <input type="checkbox"/> Amazon Creek and Diversion Canal 40% reduction in sediment oxygen demand, Biological Oxygen Demand and nutrients <input type="checkbox"/> Coyote Creek below Spencer Creek and Spencer Creek 20% reduction in sediment oxygen demand, Biological Oxygen Demand and nutrients

Part II: Report Sections and Checklists Continued

3. Please provide a concise discussion on the most positive or commendable plan elements implemented. Please limit your discussion to ten concise sentences or less. More details pertaining to specific TMDL strategy implementation will be requested in the sections that follow.

Note: *Some examples of positive and commendable elements for discussion: implemented strategies “above and beyond” proposed plan; high percentage of measures completed and implemented; square acres of riparian restoration; gap analysis and code revisions and ordinance adoption; prioritized work plan development; water quality monitoring , evaluation and progress results; interagency collaboration on key projects such as fish passage and riparian restoration.*

4. Please provide a concise discussion on any impediments to plan implementation and proposed solutions for the next four year cycle to overcome these impediments. Please limit your discussion to ten concise sentences or less. More details pertaining to TMDL Implementation timelines, progress, and plan adaptation will be requested in the sections that follow.

Note: *Some examples of impediments to consider for discussion: Lack of resources; Lack of partners; Unclear geographic priorities; Limited public support on ordinances; Inadequate staff training; No clear examples or showcase of strategies implemented.*

Part II: Report Sections and Checklists Continued

5. DEQ identifies key TMDL implementation strategies in the TMDL documents found at <http://www.deq.state.or.us/wq/tmdls/willamette.htm>. Please refer to Appendix A of this document and check the strategies, under the column category “1st 5 year cycle” that have been ongoing, implemented, or partially implemented over the preceding four years under your TMDL implementation plan.

If you are an MS4 Permittee, please also check “MS4 City or Countywide” or “MS4 Permit Boundaries Only” for a strategy when it applies.

Note: Do not use the column category, “next 5 year cycle.” This category is reserved for number 8 below.

6. Please indicate the reporting and performance components that were met for monitoring implementation success and effectiveness of strategies/Best Management Practices (BMPs) in meeting TMDL needed reductions.

Note: For sections 6.i.b. and 6.ii., utilize the status column in the matrix included with your DEQ accepted TMDL Implementation Plan, and submit it with the report. Please reference the Appendix B example provided with this document.

- i. Basic description of implementation monitoring (Were the specified management strategies implemented and annual reports submitted?)

- a. Please check yes or no:

- i. Were annual reports submitted?

Report 1 Yes No Report 2 Yes No

Report 3 Yes No Report 4 Yes No

- ii. Did annual reports submitted identify changes, delays, substitutions, etc?

Yes No

- iii. Did you address or discuss with DEQ all comments provided in your annual report acceptance letter and/or email? Yes No

- b. For each strategy, please identify in your **matrix status column** the status that applies to the strategy – Please use the terms in **bold** below and every task must have an identified status (refer to Appendix B example)

Complete: Strategy has been implemented and is done.

Ongoing: Strategy has been implemented and is ongoing as expected.

Incomplete: Strategy implemented, but measures not 100% met.

Not Implemented: Strategy not started.

Replacement: Replacement for a strategy not implemented.

Delayed: Strategy started, and strategy or interim steps still underway because of unanticipated delays.

Added: Added as new or supplemental strategy identified and added for implementation.

Note: Timelines and measures are not intended to be DEQ enforceable compliance points, they were based on your professional judgment to implement and complete a strategy. It is important to confirm that implementation efforts supportive of TMDLs are underway, not that timelines and measures have been met 100%. Delays in timelines and not meeting 100% of the measures are anticipated.

Part II: Report Sections and Checklists Continued

c. Please provide the following information based on information from b above:

- Number of tasks **Completed** _____
- Number of tasks implemented and now **Ongoing** _____
- Number of tasks **Incomplete, but started** _____
- Number of tasks **Not implemented** _____
- Number of tasks **Replacement** _____
- Number of tasks **Delayed** _____
- Number of tasks **Added** _____

- ii. Document effectiveness monitoring (Confirm the strategies were implemented and effective at reducing pollutant loading) in your **matrix status column**(refer to Appendix B example).
 - a. Based on quantitative(water quality monitoring if utilized) or qualitative data(performance measures and milestones identified in matrix), summarize the metrics in the matrix status column for the four years of implementation that support progress on meeting load allocations and water quality standards.

Note:

Quantitative - Measurement of the effectiveness of pollution reduction efforts by conducting laboratory analyses of water samples.

Qualitative - Measurement of implementation progress. Examples: Photo documentation of training; Before and after photo documentation of improvement in stream bank vegetation/cover; Vegetated stormwater containment/collection swales; Documentation of relative sediment volume/ year collected from catch basins; Roads, detention ponds or filters in stormwater treatment systems; Copies of education and outreach documentation and the number issued; Stormwater and temperature websites created.

- 7. Based on the information you documented for numbers 2-6, use the space provided to describe recommendations for continued plan strategy implementation and improvements for the next five year cycle and 5th year review.

Note: If the evaluation indicates that the plan and corresponding matrix are not likely to be adequate to meet the pollution reduction goals, describe how the plan and matrix will be modified or what efforts will be undertaken to achieve these goals and the timeline for working towards accomplishing them over the next four year cycle.

8. Based on information you documented for numbers 2-7, check-off the strategies in the Appendix A column, “next 5 year cycle,” that will be utilized for the next four years of TMDL implementation. Please remember to attach the completed Appendix A checklist with the report.
9. Based on information you documented for numbers 2-8, please attach the BMP TMDL Implementation Matrix for the next four years of implementation under the 5 year cycle.
10. All DMAs are expected to revise their plan, if the proposed strategies in the matrix for the next five year cycle also triggers an impact to the overall content of their DEQ approved TMDL plan.

I am including a revised plan with this 5th Year Review Report Yes No

11. Your submittal due date for this 5th year report will restart the clock for the next 5 year cycle(progress reporting and 5th year review report). The 5th year report review and acceptance date by DEQ will not change your assigned annual progress report due date. Please confirm your assigned annual report submittal date _____ (MM/DD).

Part III: Signature of Legally Authorized Representative

Signature of Legally Authorized Representative for 5th Year Report(Definition: Principal executive officer or ranking elected official):

Type or Print Name: _____

Title: _____

I hereby certify that the information contained in this document is true, accurate, and complete to the best of my knowledge and belief.

_____ Date (MM/DD/YY): _____

Signature

Note: Please remember to complete and attach the Appendix A checklist and the TMDL implementation matrix that will be used for documenting strategies that will be implemented and tracking progress.

					Parameters Supported				
1 st 5 Year Cycle	MS4 City wide	MS4 #	Next 5 Year Cycle	<p style="text-align: center;">Appendix A Recommended List of Key Strategies for TMDL Implementation</p>	Bacteria(E coli)		Mercury		Temperature
					Riparian and Wetland Protection and Restoration Programs				
				Floodway and floodplain overlay district ordinance that protects the floodway and floodplain from development	•		•		•
				Riparian Protection ordinance that provides a “no touch” riparian buffer on both sides of a waterbody with the width (in feet) based on the TMDL effectiveness shade and buffer width	•		•		•
				Tree protection ordinance that retains at least 60% canopy coverage, which will hold water and reduce temperature increases on impervious surfaces.					•
				Wetland protection ordinance that includes protection of headwaters and riparian corridors and other groundwater resources that provides cool water inflow from groundwater, hyporheic (near surface), wetland, or other sources into waterbody during the hottest time of year.	•		•		•
				Adopt a Low Impact Development (LID) ordinance that requires all new, redevelopment, and retrofit projects to retain natural site conditions for surface water flows	•		•		•
				Establish City/County exclusive requirement to protect buffers, riparian, wetland, and native vegetation areas on city/county property (ex., conservation) programs)	•		•		•
				Strategies and timelines to protect and establish system potential vegetation (ex., inventory land features and conditions; prioritize riparian and wetland areas; select sites for planting)	•		•		•
				Restore instream with placement of large woody debris, and bed and bank material(e.g. gravel)					•

* Edited to be in line with parameters within our jurisdiction

				Parameters Supported								
1 st 5 Year Cycle	MS4 City wide	MS4 #	Next 5 Year Cycle	Appendix A Recommended List of Key Strategies for TMDL Implementation				Bacteria(E coli)		Mercury		Temperature
				Protect or restore riparian area to 150 foot with a protective buffer on both sides with native shrubs and trees that would grow and restore stream conditions to natural conditions.	•			•		•		•
				Restore riparian area with native shrubs and trees that would grow and restore stream conditions to natural conditions.	•			•		•		•
				Zoning and development code audit and update to protect natural drainage and surface water areas and incorporate LID and structural collection & treatment of stormwater	•			•		•		•
				Enforce on riparian violations	•			•		•		•
				Identification of watershed partners and projects that support implementation efforts and participate/support implementation of riparian restoration and LID on-the-ground projects	•			•		•		•
				Purchase of permanent instream transfers through Oregon Water Resources Department, particularly during the summer and late fall flow periods.								•
				Gap analysis of DMA's programs (ID what's lacking for riparian restoration and preservation and six minimum stormwater control measures)	•			•		•		•
				Pollution Prevention in Municipal Operations								
				Adopt Consider an Integrated Pest Management (IPM) Ordinance Plan to develop effective plans, programs, and policies	•			•		•		•
				Conduct Regular Street Sweeping of streets, parking lots, and other impervious surfaces with sweepers that have good efficiencies for removing the tiniest particles.	•			•		•		

					Parameters Supported				
1 st 5 Year Cycle	MS4 City wide	MS4 #	MS4 " "	Next 5 Year Cycle	Bacteria(E coli)		Mercury		Temperature
Appendix A Recommended List of Key Strategies for TMDL Implementation									
				Adopt and implement policy to prevent over-application of maintenance and construction products (ex., reduce fertilizers , herbicides, pesticides to public lawns and landscaped areas; avoid over application deicing salts)			•		•
				Employee training about maintenance and construction practices to protect water quality	•		•		•
				Maintenance program for stormwater collection and treatment systems	•		•		•
				Incorporate electric and low high MPG into transportation fleet					•
				Pet/Animal waste, Septic Systems, Illicit discharges					
				Adopt Consider the development and/or adoption of a No Wildlife Feeding Ordinance near waterbodies to limit the amount of wildlife waste and sediment from riparian damage entering waters of the state, including lakes, reservoirs, ponds, and other impoundments.	•		•		•
				Adopt a pet waste pick-up ordinance for home and in public area	•				
				Establish Allow development of Dog Run Areas in a dog park that is sited away from environmentally sensitive features and provides a safe off-leash fenced area.	•				
				Collaborative Pledge based pet waste program	•				
				Pet waste stations, signs (install)	•				

					Parameters Supported								
1 st 5 Year Cycle	MS4 City wide	MS4 #	MS4 " "	Next 5 Year Cycle	Appendix A Recommended List of Key Strategies for TMDL Implementation				Bacteria(E coli)		Mercury		Temperature
					Porta potties at parks in summer with no facilities and public events (fairs, markets, holidays, etc)	•							
					Minimize inflow and infiltration of stormwater to wastewater system	•							
					Septic system reduction through hook-up to public wastewater system	•							
					Develop a Local Community Loan Program to provide low-cost financial assistance to individual homeowners to repair or replace substandard and failing on-site systems (Note: A county or city may contract with DEQ to borrow funds through the Clean Water State Revolving Fund (CWSRF) to establish a "local loan").	•							
					Onsite/septic inspection and maintenance ordinance to require onsite system inspection and maintenance to repair or replace substandard and failing on-site. systems; Onsite system fixes and repairs during sale	•							
					Identify and eliminate illicit discharges and cross connections	•			•				•
					Drinking water protection								
					Drinking water ordinance to protect drinking water obtained from groundwater sources	•							
					Drinking water ordinance to protect drinking water obtained from surface water sources	•							

* Edited to be in line with parameters within our jurisdiction

					Parameters Supported								
1 st 5 Year Cycle	MS4 City wide	MS4 #	MS4 " "	Next 5 Year Cycle	Appendix A Recommended List of Key Strategies for TMDL Implementation				Bacteria(E coli)		Mercury		Temperature
					Erosion and Sediment Control During Construction								
					Hillside development (Steep Slopes) protection code/ordinance to minimize or stop soil erosion from steep slopes that are eroding (or subject to erosion from disturbance) causing sediment to enter into a waterbody.						•		
					Develop Consider an erosion and sediment control ordinance for less than 1 acre of disturbance						•		
					Require erosion and sediment control plans, when applicable, during building permit application pre-submittal phase						•		
					Restore exposed soil areas with erosion control BMPs to prevent and control erosion						•		
					Strengthen 1200-C permit oversight--Require permit approval for land use approval						•		
					Collaborative regional erosion control summit						•		
					Stormwater Planning and Programs, Structural Collection and Treatment of Stormwater								
					Stormwater management ordinance that requires all new, redevelopment, and retrofit projects to control and treat soil laden stormwater runoff				•		•		
					Stormwater management ordinance that requires all new, redevelopment, and retrofit projects to maintain post development peak runoff rate and average volume at levels that are similar to pre-development levels				•		•		

					Parameters Supported				
1 st 5 Year Cycle	MS4 City wide	MS4 #	MS4 " "	Next 5 Year Cycle	Appendix A Recommended List of Key Strategies for TMDL Implementation				
					Bacteria(E coli)		Mercury		Temperature
					Construct site non-UIC dry swale that will settle, infiltrate , and treat stormwater	•		•	•
					Construct site pond/wetland system that will settle, infiltrate and treat stormwater	•		•	•
					Install onsite and/or regional basin facility to control and treat turbid runoff (i.e., rock dams, swales, sediment basins, sediment traps)	•		•	•
					Convert road ditches to Grassed Swales (a.k.a. grassed channel, dry swale, wet swale, biofilter, or bioswale) to infiltrate and capture sediment	•		•	•
					Investigate and/or promote the use of low impact development techniques such as bioswales, rain gardens, pervious surfaces, etc.	•		•	•
					Financial analysis and funding source identification - what can they really do with the funding they have	•		•	•
					Adopt a Low Impact Development (LID) Ordinance that requires all new, redevelopment, and retrofit projects to reduce impervious surfaces and use LID and other BMPs to infiltrate, filter, retain, evaporate, and slow down runoff close to its source and treat nutrients from impervious surfaces.	•		•	•
					Develop stormwater conveyance systems map to track and locate problems more efficiently	•		•	
					Educate about illegal discharges	•		•	•
					Develop and implement an outreach program/strategy for water quality protection	•		•	•

					Parameters Supported					
1 st 5 Year Cycle	MS4 City wide	MS4 # 	Next 5 Year Cycle	<h3>Appendix A</h3> <h3>Recommended List of Key Strategies for TMDL Implementation</h3>	Bacteria(E coli)		Mercury		Temperature	
					Employee training about maintenance and construction practices to protect water quality	•		•		•
					Enforcement of ordinances that protect water quality	•		•		•
					Establish system development charges for stormwater	•		•		
					Gap analysis of DMA's programs (ID what's lacking for riparian restoration and preservation and six minimum stormwater control measures)	•		•		•
					Hand out water quality fact sheets with land use applications and building permits	•		•		•
					Have appropriate staff attend TMDL Stormwater Management meetings	•		•		•
					Illegal discharge, detection and complaint response program	•		•		•
					Increase enforcement capacity	•		•		•
					Increase monitoring capacity	•		•		•
				MS4 Phase II Non-Permittees - Implementing strategies and timelines for 6 minimum stormwater control measures	•		•			

					Parameters Supported								
1 st 5 Year Cycle	MS4 City wide	MS4 #	MS4 " "	Next 5 Year Cycle	Appendix A Recommended List of Key Strategies for TMDL Implementation				Bacteria(E coli)		Mercury		Temperature
					Non-Structural practices(Low Impact Development Code or Ordinance, Comprehensive Plans)	•			•				•
					Quantify BMPs and protection needed to meet water quality standards and TMDL load allocations	•			•				•
					Require construction of onsite or construct regional non-UIC Grassed Swales (a.k.a. grassed channel, dry swale, wet swale, biofilter, or bioswale) that infiltrates stormwater and maintains dry weather flow.	•			•				•
					Promote utilization of or require construction of porous concrete and/or asphalt roads when constructing new or re-constructing a road	•			•				
					Stormwater Master/Management Plan with water quality components for riparian areas and stormwater management controls (develop or update)	•			•				•
					Education and Outreach, Public Involvement								
					Stormwater/water quality protection education via website	•			•				•
					Stormwater/water quality protection education via workshops and public events	•			•				•
					Stormwater/water quality education via fact sheets, signage, mailers	•			•				•
					Pursue and implement mutual strategies with other jurisdictions	•			•				•

					Parameters Supported				
1 st 5 Year Cycle	MS4 City wide	MS4 #	MS4 " "	Next 5 Year Cycle	Appendix A Recommended List of Key Strategies for TMDL Implementation				
					Bacteria(E coli)		Mercury		Temperature
					Outreach - Creek protection and what "you" can do.	•		•	•
					Conduct public education and outreach on riparian and wetland protection and restoration and local zoning/ordinances to protect riparian areas	•		•	•
					Tree planting program and Promote tree planting in open areas to provide adequate tree canopy coverage				•
					Promote carpooling, public transportation Internally and for public City events			•	
					Promote/collaborate/incentivize riparian protection	•		•	•
					Conduct public education and outreach on cold water for fish and stormwater quality: riparian protection; promote conservation programs available through agencies	•		•	•
					Pet waste education - Inform residents about bacteria issues; Partner with other jurisdictions in media campaign	•			
					Post TMDL Implementation Plan on website or make available to public for review and comment	•		•	•
					Conduct public education and outreach on stormwater quality: illegal dumping; septic system maintenance	•		•	

* Edited to be in line with parameters within our jurisdiction

Appendix B

Implementation Matrix

The following matrix details the strategies that will be implemented within the five years. The matrix displays the pollutant being addressed, the strategy to address it, when that strategy will be implemented, and how to measure progress and successful implementation

Table 2 - TMDL Implementation Tracking Matrix

POLLUTANT	SOURCE of POLLUTANT	STRATEGY <i>What we are doing & will do to reduce pollution from this source</i>	ACTIONS <i>Specific ways to implement strategies</i>	BENCHMARK <i>Intermediate indicators to know progress is being made</i>	TIMELINE	MEASURE <i>How we will track implementation & completion</i>	STATUS
Temperature	Solar radiation to surface waters	T1 - Inventory Existing and Potential Shade and Enhancement Areas	Develop a priority project list for shading.	Conduct a desktop inventory and assessment process for identifying shade potential sites.	By May, 2009	Prioritization list of potential sites.	Completed (1) Desktop assessment has been completed. (2) Priority list developed. (3) Additional work being done on merging this list with the new CIP list for Channel Restoration sites.
			Work to develop public/private partnerships for demonstration projects.	Develop a proposal for partnering on shading projects.	By July, 2009	Meet with selected groups and propose partnerships to develop shading projects.	Completed (1) The Mill Race Restoration Projects is complete – this provided rechanneling the stream, re-vegetation and canopy tree planting. (2) Efforts continue with a Stormwater Treatment Park and Lower Mill Race land acquisition. (3) Met with school district, Willamalane Recreational Park District, SUB water, one private property owner, a community youth group, and City Operations Division. (4) Successfully planted QFW and Jasper Slough’s conservation area at Filbert Meadows with school district as a partner. (5) Planted a section of the Lower Mill Race and replanted the Jasper Slough site with a community youth group. (6) A section of the Mill Race was planted in partnership with Metro and a local watershed group. (7) Numerous small shading projects took place along sections of waterways and at WQFs.

		T2 - Riparian Area, Parking Lot, and Streetscape Shade Enhancement	Code review, evaluation and enhancement for parking lot, streetscape shade and riparian vegetation management, setbacks and buffers, and retrofit practices if appropriate.	Review the Development Code with key planning staff, and determine if shading or riparian protection amendments are appropriate.	By May, 2009	Review of Development Code for enhancement of riparian setbacks.	Completed (1) Dev. Code reviewed and adoptions made that include setback protection, Dev. restrictions, and defining WQLWs. (2) EDSPM updates were made that provide standards for WQFs, vegetation standards, and guidance for LID projects. Dev. Code was updated to reflect design standards and requirements. (3) The Glenwood Refinement Plan was drafted and adopted and provides Dev. Code requirements for LID, Greenway protection, WQLW, vegetation standards, and riparian protection.
				If amendments are appropriate, develop & propose to Council or work to include them in an amendment package.	By December, 2010	Proposals brought to Council.	Completed (1) Dev. Codes adopted (2) EDSPM updates adopted (3) Glenwood Refinement Plan adopted
				Continue to fully participate with ACOE staff contacts and meetings.	Participation is on going	Continue to participate with ACOE staff contacts and meetings.	Completed (1) Staff continued to work with ACOE for the MR Restoration Project; the project is now completed. (2) Mill Race Restoration Project was completed and finalized.
			Mill Race restoration and temperature mitigation.	Explore additional or alternative funding and project phasing & explore alternative funding options & sources.	Phasing by July, 2009 Funding by Dec., 2009	Development of alternative projects, funding options and source list.	Completed (1) Grants and private sources have been investigated. (2) Land acquisition has occurred and is ongoing for additional site enhancements/projects. (3) Some alternative projects have included bank restoration, tree planting, and invasive plant removal - all done through alternative funding and/or volunteer work.
				Work with the ACOE in identifying discrete project tasks that can advance overall restoration.	Priority tasks list by December, 2009	Development of a priority project tasks list	Completed (1) Meeting with the ACOE helped in identifying additional projects sites and tasks. Additional work identifying sites was done by City staff. (2) Two current projects in the planning stages consist of a stormwater treatment park and multi-use path system.

			Outreach and education to groups, citizens, businesses and industry.	Include discussion of heat as a pollutant into the existing outreach and education program.	By May, 2009	Development & inclusion of temperature management in education materials, presentations, public events & meetings with industry.	<p>Completed</p> <p>(1) Clean Water Gardens booklet series, booth events, in house training, and technical assistance to industries and businesses has all been done.</p> <p>(2) Educational material developed for pressure washing, riparian protection, tree planting, car washing and more.</p> <p>(3) Presentations have been given to community groups, HOAs, watershed councils, city government bodies, and schools.</p>
Warm water discharges	T3 – Manage Industrial Warm Water Discharges		Work with industrial sources and Oregon DEQ to address warm water discharges thru the NPDES permit program.	Staff will continue to work with industry and State regulators to find acceptable management resolutions.	In process and ongoing until revisions made to industry discharge permits	Acceptable management resolutions and revision made to industry's discharge permits by the DEQ.	<p>Ongoing</p> <p>(1) Staff continues to review and provide comments to the DEQ as permits are issued or re-issued.</p> <p>(2) Staff works one on one with industry providing technical assistance as illicit discharges or warm water discharges are found.</p> <p>(3) Staff provided comments to DEQ 1200z permit development.</p> <p>(4) Staff has worked with two industries to develop onsite re-use systems and avoid discharges to the storm system.</p>
Public Interaction	T4 – Public Outreach and Education		Develop and distribute outreach and education materials to the public.	Staff will evaluate needs, types of temperature related activities effecting water quality, material options and sources.	In process and ongoing, re-evaluation by January 2010	Staff will continue to work with other agencies and independently in the evaluation, addressing needs and discussions on types of temperature related activities effecting water quality, Staff will continue to develop/distribute material and research options and sources.	<p>Completed</p> <p>(1) Staff evaluated different types of activities that might include warm water discharges and developed and distributed materials appropriately. Some examples are car washing and pressure washing.</p> <p>(2) Staff evaluated different types of activities that might aid in providing shade to lower water temperatures; Clean Water Garden booklet series development and distribution.</p> <p>(3) Outreach material developed and distributed throughout the City at participating sites such as home and garden centers and community events.</p> <p>(4) IDDE response provides educational material and technical assistance when responding to a complaint.</p>

POLLUTANT	SOURCE of POLLUTANT	STRATEGY <i>What we are doing & will do to reduce pollution from this source</i>	ACTIONS <i>Specific ways to implement strategies</i>	BENCHMARK <i>Intermediate indicators to know progress is being made</i>	TIMELINE	MEASURE <i>How we will track implementation & completion</i>	STATUS
Bacteria	Sanitary sewer system	B1 - Sanitary Sewer Overflows - Work Practices	Review current standard operating procedures for spill response. Amend or revise if appropriate.	Review relevant SOPPs for spills and overflows.	By January, 2009	Review completed	Completed (1) SOPP reviewed and updated for spill control, reporting, and response. (2) Procedures are reviewed after incidents to ensure appropriate response.
			Develop/amended SOPPs, if needed.		By July, 2009	Adoption of new or amended SOPPs if appropriate	Completed (1) SOPP's approved and updated.
			Review contractor work provisions to ensure contractors know and understand Spfld. requirements for sanitary spill.	Conduct review of relevant Springfield standard contracting specifications.	By July, 2009	Review of contract specifications	Completed (1) Contractor specifications reviewed.
				Develop revisions, if needed	By December, 2009	Adoption of new or amended contractor work provisions, if needed	Completed (1) Contractor provisions updated.
	Animal/Pet waste	B2 - Animal/Pet Waste - Program Enhancement		Meet with Willamalane & Maint. staff to identify prospective locations for pet waste stations.	By January, 2009	Development of a list of possible locations. Program is ongoing.	Completed (1) Sites have been identified as well as additional sites at schools and public facilities.
			Coordinate with Willamalane Park & Recreation Dist. to identify additional sites for pet waste disposal stations in public area used by pet owners. Assist with placement and maintenance.	Coordinate installation of new sites if appropriate locations found.	By July, 2009	Installation completed at sites.	Completed (1) Pet waste stations have been installed at all problem locations. (2) As new sites or problem locations are found installations will be done if appropriate. (3) Sites are tracked in a GIS database.
			Inspect pet parks, kennels, and pet day care sites to ensure proper waste handling.	Identify existing/proposed pet parks, kennels and pet day care facility owners/operators to ensure proper pet waste management.	By August, 2009	List developed of dog park owners, kennels & pet day care facilities. Contact facilities & request inspections for waste management.	Completed (1) A list of sites and businesses was developed, owners contacted, inspection took place at participating facilities, and educational material is distributed at some facilities.
			Continue pet waste outreach and education work with citizen groups, students, at public events and include targeted businesses.	Identify pet supply stores within Spfld. and promote pet waste management brochure distribution to them.	By July, 2009	A list of Spfld. pet supply stores and facility contact made.	Completed (1) Sites were identified and a list developed, facility owners contacted about being a distribution site for educational material. (2) Brochures are distributed at participating sites.

				Review and update educational material for distribution as needed, and distribute to willing business owners.	By July, 2009	Review and approval of updating current material and the development of new material.	Completed (1) Material was reviewed and updated during the cycle. New brochures were made, implemented Canines for Clean Water program. Canines for Clean Water pledge events, billing inserts, etc. (2) Additional work was done to create "pick up after your pet" signs.
			Waterfowl and Nutria feeding outreach and education.	Coordinate with Park & Rec and City Maintenance staff to identify area locations of wildlife feeding.	By July, 2009	List developed of locations.	Completed (1) Staff worked with the park district to develop signs and areas to post them in. (2) A City park along a major water course has signs posted, sections of the QFW, and some private property owners have also taken advantage of using the signs on their property.
				Develop educational signs related to feeding wildlife and the impacts on water quality.	By December, 2009	Signs developed and posting started.	Completed (1) Sign developed and posted. See above.
	Sanitary wastes	B3 - Septic Tank, Transient Camping and Private Sanitary Infrastructure Outreach and Education	Identify septic systems in the City limits; assess feasibility or need for connection to City sanitary sewer.	Initiate a septic system inventory program for the City.	By July, 2009	Development of septic system inventory program and tracking database.	Completed (1) An inventory has been done that includes a database and map tracking system.
				Contact owners – gather condition information and interest.	By December, 2009	Contact owners, information gathered	Completed (1) Owners were contacted and facilities verified. Survey information was gathered on existing tank condition and desire to connect to the City system if available.
				Develop and deliver outreach and educational materials to owners.	by January, 2010	Distribution of outreach and educational material	Completed (1) Educational and maintenance brochure were developed. (2) Hundreds of brochures were mailed out in partnership with the local drinking water utility.

			Continue investigations into illicit commercial waste disposal practices.	Continue current efforts, AND develop informational handouts targeting other possible sources.	By January, 2010	Review and approval of updating current material and the development of new materials.	<p>Completed</p> <p>(1) Staff investigated different types of waste disposal haulers and practices and determined that proper disposal and handling was occurring for most types of activities.</p> <p>(2) Material was developed and distributed to carpet cleaner companies. RV waste dumping brochure developed. Pressure washing, auto body and paint shops were all contacted and outreach material developed.</p> <p>(3) Staff determined that this effort could be dealt with through the IDDE enforcement program for any future investigation and material response. The IDDE program developed ongoing programs such as the pressure washing program and the auto shops program.</p>
		Review transient camping procedures, and focus additional efforts where sanitary waste or other waste impact open waterways. Seek enforcement through existing codes/statutes, as resources allow.	Develop procedures & priority site determination criteria with PD and Maintenance staff.		By December, 2009	Review and development of policies and procedures. Development of a priority list, deterrent option list and a tracking program.	<p>Completed</p> <p>(1) Staff reviewed existing Codes and response procedures; updated accordingly.</p> <p>(2) Site investigation, clean up criteria and problem site list developed.</p> <p>(3) A database was developed to track complaints, cleanup and investigation activities.</p>
			Work with land owners to enforce illegal camping regulations.		By June, 2009		<p>Ongoing</p> <p>(1) All complaints are responded to – City Code Enforcement works with property owners to abate camps.</p>
			Assess known campsites on public land and establish a priority list for removal. Investigate campsite deterrent measures.		By December, 2009		<p>Completed</p> <p>(1) Site investigation, clean up criteria and problem site list developed.</p> <p>(2) Annual assessment done at known recurrent sites.</p> <p>(3) A tracking database was developed to track complaints, cleanup and investigation activities.</p> <p>(4) City Operations Division deters camping by removing brush at problem locations.</p>

	Public Interaction	B4 – Public Outreach and Education	Develop and distribute outreach and education materials to the public.	Staff will evaluate needs, types of bacteria related activities effecting water quality, material options and sources.	In process and ongoing, re-evaluation by January 2010	Staff will continue to work with other agencies and independently in the evaluation, addressing needs and discussions on types of bacteria related activities effecting water quality, Staff will continue to develop/distribute material and research options and sources.	Ongoing (1) Staff has developed and distributed many types of bacteria related educational material; Canines for Clean Water brochures, pick up after your pet brochures and signs, septic tank maintenance brochures, pet waste in Water Quality Facilities, and "River Starts Here" door hangers.	
Mercury	Construction site soil erosion	M1 - Limit Construction Site Erosion	Review existing LDAP program, identify any additional program needs & assist with modifications to enhance program effectiveness. Initiate discussions with DEQ staff for Spfld. to receive delegated authority from DEQ on 1200-C NPDES permitting within the City limits	Review program, determine program revisions and enhancements, if appropriate.	By January, 2010	Review and updates made to the current program, if needed.	Completed (1) LDAP program has been reviewed resulting in additional staffing; updated design standards and City Code.	
				Draft "MOU" between Springfield and DEQ	By December, 2010	City Council approval of "MOU"	Completed (1) City and DEQ have a signed and approved MOU for 1200 C permits within Springfield's jurisdiction. (2) Current MOU/IGA will expire in November 2015	
		M2 - Enhance Post Construction Support	Continue Water Resources staff participation in plan review & expand reviews by Water Resource staff into more involvement in the approval process.	Expand level of review involvement by engaging in the review process for proposals requiring engineering review.	By January, 2009	Expanded involvement in review development proposals requiring engineering review for water quality impacts.	Completed (1) WR staff participates in development review and participated in the Glenwood Refinement Plan, Franklin Blvd. Transportation Plan, major and minor development proposals, EDSPM review and updates, and Development Code updates.	
			Identify needs, assess available staff and resources.		By December, 2009	Staff and resource needs assessed.	Completed (1) WR staff identified needs and developed a Stormwater Facility Management Program for public and private facilities.	
		Initiate development of a post-construction BMP inspection program to ensure maintenance of WQ BMPs at private sites.						
			Pursue program implementation within resource limitations.		By July, 2010	Development of an inspection program, if funding and staffing is determined to be feasible.	Completed (1) WR staff developed a Stormwater Facility Management Program that includes an inventory and inspection process. (2) Criteria, guidance manuals, O & M Plans, inventory process, inspection process, compliance and enforcement criteria, and a tracking database have all been developed and implemented.	

	Urban street runoff	M3 - Evaluate/Enhance Street Sweeping, Catchbasin, and Pipe Cleaning Programs	Review with PW Maintenance staff the current street sweeping, catchbasin & pipe maintenance programs, equipment, schedule, and identify program gaps.	Review existing sweeping and CB and pipe cleaning programs, equipment, technology and complaints with Maintenance staff and develop adaptive management measures as needed.	Annual review May, 2009	Review, approval and implementation of any updates to the current programs.	Completed (1) Program review identified the need for an additional sweeper and new type of sweeper. (2) One additional air sweeper was purchased. (3) Routine scheduled sweeping program reviewed and remains the same.
	Hazardous waste control	M4 - Hazardous Waste Control	Use household hazardous waste collection events to reduce the improper disposal of items containing mercury.	Springfield will continue to participate in the support of the Lane County household hazardous waste events including outreach at public events such as the Lane County Fair, Springfield cleanup and Earth Day.	Ongoing annually	Participate in Public collection events and promote outreach.	Ongoing (1) ESD staff continues to work with regional partners in holding public events that collect electronics and other household hazardous waste. (2) Spring Clean-up is an annual Springfield event that collects trash, electronics, and recyclables. (3) LC holds an annual hazardous waste round up event and the annual Earth Day event has held mercury thermometer trade in.
			Continue the implementation of pollution management practice (PMP) program for local offices designed to address and prevent mercury waste from dental amalgam from entering the wastewater system.	Springfield's Industrial Pretreatment program will continue the administration of a dental PMP program in cooperation with the Oregon Dental Association.	Ongoing with expected evaluation and site inspection by January 2010	Records are maintained through program and reported as required.	Completed (1) Springfield's Industrial Pretreatment program administered the dental pollution management program in cooperation with the Oregon Dental Assoc. (2) Sites were inspected and technical assistance proved. (3) Upon Statewide adoption the requirement to install mercury amalgam separators at dental facilities, the dental PMP program was discontinued in favor of the statewide requirements. (4) Enforcement and administration of the program now rests with the Oregon Dental Board.

	Public Interaction	M5 – Public Outreach and Education	Develop and distribute outreach and education materials to the public.	Staff will evaluate needs, types of mercury related activities effecting water quality, material options and sources.	In process and ongoing, re-evaluation by January 2010	Staff will continue to work with other agencies and independently in the evaluation, addressing needs and discussions on types of mercury related activities effecting water quality, Staff will continue to develop/distribute material and research options and sources.	<p>Ongoing</p> <p>(1) Staff developed and continues to distribute educational material to the public and contractors about pollution, sediment transport, automotive components that may contain mercury, and appliance recycling.</p> <p>(2) Springfield provides technical assistance and education to owners of automotive facilities and provides BMP advice on housekeeping and switch out programs. The City has two programs for the auto industry; the Eco-Biz Certification and the Auto Shops Program.</p> <p>(3) Factsheets have been developed and provided to contractors about catchbasin cleaning and the proper disposal of debris.</p>
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Springfield’s Proposed Implementation Matrix 2014 -2019

The following matrix details the strategies that will be implemented within the next five years. The matrix displays the TMDL pollutant, the strategies to reduce them, implementation timeline, and how to measure progress and successful implementation.

Table 5 - TMDL Implementation Tracking Matrix

POLLUTANT	SOURCE of POLLUTANT	STRATEGY <i>What we are doing & will do to reduce pollution from this source</i>	ACTIONS <i>Specific ways to implement strategies</i>	BENCHMARK <i>Intermediate indicators to know progress is being made</i>	TIMELINE	MEASURE <i>How we will track implementation & completion</i>	STATUS
Temperature	Solar radiation to surface waters	T1 - Inventory Existing and Potential Shade and Enhancement Areas	Maintain a priority project list for shading.	Review and update the existing inventory identifying potential sites.	By April 2017	Revise priority list of potential sites.	
			Work to develop public/private partnerships for demonstration projects.	Continue to explore available options for partnering on shading projects.	Ongoing throughout the cycle	Meet with selected groups and propose partnerships to implement shading projects.	Ongoing
		T2 - Riparian Area, Parking Lot, and Streetscape Shade Enhancement	Additional code review, evaluation and enhancement for parking lot, streetscape shade and riparian vegetation management, setbacks and buffers, and retrofit practices if appropriate.	Review the Development Code with key planning staff and determine if shading or riparian protection amendments are appropriate.	By April 2016	Review of Development Code for enhancement of riparian protection and impervious surface shading.	
				If amendments are appropriate, develop & propose to Council or work to include them in an amendment package.	By April 2018	Proposals brought to Council.	
			Mill Race restoration, maintenance, and enhancements	Continue to explore additional or alternative funding options & sources.	By April 2019	Review and update projects, funding options and source list.	
				Work in identifying discrete projects that can advance overall restoration.	By April 2018	Review and update project list.	
	Warm water discharges	T3 – Manage Industrial Warm Water Discharges	Work with industrial sources and Oregon DEQ to address warm water discharges through the Industrial Stormwater NPDES permit program.	Staff will continue to work with industrial dischargers and State regulators to find acceptable management resolutions.	Ongoing throughout the cycle	Industrial Stormwater permits reviewed, comments provided, and technical assistance provided as needed.	Ongoing
	Public Interaction	T4 – Public Outreach and Education	Continue to develop and distribute outreach and education materials to the public.	Staff will continue to evaluate program needs and activities that effect water temperature. Staff will develop and distribute educational materials based on these evaluations.	Annually Starting January 2015	Continue to work with other agencies and independently to address activities that affect water temperature. Continue to develop and distribute educational material.	Ongoing

POLLUTANT	SOURCE of POLLUTANT	STRATEGY <i>What we are doing & will do to reduce pollution from this source</i>	ACTIONS <i>Specific ways to implement strategies</i>	BENCHMARK <i>Intermediate indicators to know progress is being made</i>	TIMELINE	MEASURE <i>How we will track implementation & completion</i>	STATUS
Bacteria	Sanitary sewer system	B1 - Sanitary Sewer Overflows - Work Practices	Review current standard operating procedures for spill response. Amend or revise if appropriate.	Review relevant SOPPs for spills and overflows.	By April 2016 – 1 st review By April 2018 – 2 nd review	Review(s) completed	
				Develop/amended SOPPs, if needed.	By April 2017 and By April 2019	Approve and implement new or amended SOPPs if appropriate	
			Review contractor work provisions to ensure contractors understand Spfld. requirements for dealing with sanitary spills.	Conduct review of relevant Springfield standard contracting specifications.	By April 2016	Review of contract specifications	
				Develop revisions, if needed	By April 2017	Adoption of new or amended contractor work provisions.	
	Animal/Pet waste	B2 - Animal/Pet Waste - Program Enhancement	Coordinate with local partners to identify additional sites for pet waste disposal stations in public areas and assist with placement and maintenance.	Continue to collaborate with local partners to identify additional prospective pet waste stations.	By April 2015 and By April 2018	Update and maintain a list of possible locations.	Ongoing
				Continue to coordinate or otherwise assist with installation and maintenance of any new sites.	By April 2016 and By April 2019	Installation and maintenance of new sites.	Ongoing
			Continue identification and waste management assessment of pet care providers and services.	Continue to identify, review and update list of pet supply, service, and care facilities. Assess and develop outreach needs and options	By April 2017	Update list of facilities and outreach needs and options.	
				Conduct assessment and/or make contact with participating owners/operators and track facility participation.	By April 2018	Assess and/or contact participating facilities. Track participation.	
			Continue pet waste outreach and education at public events and distribute outreach materials at pet-related businesses.	Identify and review options for distributing outreach material such as brochures and hold Canines for Clean Water pledge events.	By April 2016	Update list of distribution sites and hold public events.	
				Review and update educational materials as needed.	By April 2017	Review, revise, and approve current educational.	
	Animal/Pet waste	B2 - Animal/Pet Waste - Program Enhancement	Wildlife feeding outreach and education.	Continue to coordinate with the park district and City Operations staff to identify locations of wildlife feeding. Update list and where appropriate post signs.	By April 2016 and By April 2018	Update list of locations. Post signs and distribute educational material.	
				Explore development of a pest management program and adopting a wildlife feeding ordinance.	By April 2017	Review done and options investigated.	Added
				Maintain a septic system inventory within the City limits.	Ongoing	Continued maintenance of septic system inventory and tracking database.	Ongoing
			Maintain a septic system inventory program for sites within the City limits; work with property owners to provide public sanitary services when feasible. Review, update, and deliver educational material as appropriate.	Work with property owners within the City limits to provide public sanitary services when feasible. Continue to incorporate and extend services as appropriate.	Ongoing	Properties within the City Limits connected to public system when feasible.	
	Sanitary wastes	B3 - Septic Tank, Transient Camping and Private Sanitary Infrastructure Outreach and Education	Review, update, and deliver outreach and educational materials to owners as appropriate.	Review, update, and deliver outreach and educational materials to owners as appropriate.	By April 2016 and By April 2018	Update and distribute outreach and educational material.	
			Continue investigations into illicit commercial waste disposal practices.	Continue to identify target audiences, and develop and distribute outreach material specific to them which incorporate BMPs and relevant regulatory requirements.	By April 2015 and By April 2017	Identify additional audiences; develop and deliver educational material.	
			Review transient camping procedures, and focus additional efforts where sanitary waste or other waste impact open waterways. Seek enforcement through existing codes/statutes, as resources allow.	Review and update procedures & priority site determination criteria with PD and Operations staff as needed.	By April 2017	Review and update policies and procedures, priority list, and tracking program.	
				Work with land owners to enforce illegal camping regulations on private property.	Ongoing throughout the cycle	Work with land owners to enforce illegal camping.	Ongoing

POLLUTANT	SOURCE of POLLUTANT	STRATEGY <i>What we are doing & will do to reduce pollution from this source</i>	ACTIONS <i>Specific ways to implement strategies</i>	BENCHMARK <i>Intermediate indicators to know progress is being made</i>	TIMELINE	MEASURE <i>How we will track implementation & completion</i>	STATUS
				Assess known campsites on public land and update the priority list for removal. Continue to investigate campsite deterrent measures.	By April 2018	Assess known illegal camp sites.	
	Public Interaction	B4 – Public Outreach and Education	Review, update, develop, and distribute outreach and education materials to the public, as needed.	Staff will continue to evaluate needs, types of bacteria related activities affecting water quality, continue to develop educational material and distribution options.	Annually Starting January 2015	Develop/distribute materials and research distribution options.	Ongoing
Mercury	Construction site soil erosion	M1 - Limit Construction Site Erosion	Continue to review existing LDAP construction site erosion control program, identify any additional program needs, and assist with program modifications or support to enhance program effectiveness.	Staff will review the LDAP program to determine if program revisions, enhancements, or modifications are appropriate.	By April 2015	Review of current program and updates made.	
				Work with the DEQ to re-new the IGA for construction activities within the City of Springfield.	Target date by Nov. 2015	City Council approval of IGA for construction activities.	
		M2 - Enhance Post Construction Support	Continue Water Resources staff participation in plan review & expand Water Resource staff involvement in the approval process.	Continue involvement by engaging in the review process for proposals requiring engineering review and/or smaller scale developments that include water quality or LIDA.	Ongoing throughout the cycle	Involvement in the review process for developments having WQ and/or LIDA proposals.	Ongoing
			Continue to implement a post-construction BMP inspection program to ensure maintenance of WQ BMPs at private sites.	Review program needs, available staff, and resources.	By April 2016	Assessment of program, staff, and resource needs.	
	Continue program implementation within resource limitations.	Ongoing throughout the cycle		Continue implementation of a Stormwater Facility Management Program.	Ongoing		
	Urban street runoff	M3 - Evaluate/Enhance Street Sweeping, Catchbasin, and Pipe Cleaning Programs	Review with DPW Operations staff the current street sweeping, catchbasin & pipe maintenance programs, equipment, and schedule; identify program needs.	Review existing sweeping and CB and pipe cleaning programs, equipment, technology, and complaints with Operations staff; adaptively manage as resources allow.	By April 2016	Review, approval and implementation of updates to the current programs.	
	Hazardous waste control	M4 - Hazardous Waste Control	Identify sources of mercury pollution and what household products, electronics, appliances, etc... may contain mercury and determine what pollution prevention projects/programs are feasible to implement.	Mercury pollution source assessment; research sources of mercury and determine what pollution prevention projects/programs the City has resources to implement.	By April 2016	Complete mercury pollution source assessment.	
				Use household hazardous waste collection events to reduce the improper disposal of items containing mercury.	Springfield will continue to participate in the support of events such as the Lane County household hazardous waste events including outreach at public events such as home shows, Spring Cleanup and Earth Day.	Ongoing throughout the cycle	Participate in public collection events and promote outreach.
Public Interaction	M5 – Public Outreach and Education	Develop and distribute outreach and education materials to the public.	Staff will continue to develop/distribute educational material and research education options.	Annually Starting April 2015	Review, update, and distribute educational materials.	Ongoing	