



Section 16 – *TMDL Implementation Plan*

16.1 Summary

The purpose of Section 16 of this document is to provide an overview of those activities that were not conducted under the NPDES Permit that are related to the TMDL Implementation Plan. The purpose of this format is to make review a more streamlined process.

As was covered in last year's report, the additional workload associated with three stormwater programs, the NPDES Permit, the TMDL Implementation Plan, and the UIC program has been taxing on existing stormwater personnel. Unfortunately, limited resources resulted in a decline in productivity across the board.

While accomplishments for the report year show little progress in BMP completion, significant efforts were put toward obtaining a stormwater fee increase that has resulted in new staff for the Stormwater Division. In September 2010, the Public Works Department hired a new Senior Environmental Program Technician and an Environmental Program Technician as a result of that fee increase. Furthermore, the Department is expecting a new temporary stormwater technician to start work on November 1, 2010. The City has funding to retain that position until the end of the fiscal year.

Although the effort required to secure these new positions resulted in a further delay of program implementation, the Environmental Program Coordinator is hopeful that report year 4 will be a milestone year for program accomplishments.

16.2 Specific Activities

Outreach Materials

Many of the outreach materials completed during 2009/2010 were discussed in earlier Sections of this document. In regard to the TMDL Implementation Plan, most of the outreach material created has some kind of educational component that is tied to the three pollutants of concern. Staff has loosely adopted a policy of discussing bacteria, mercury, and temperature when creating any type of outreach product.

The BMP PE-1 under temperature indicates the use of interpretive signage to educate residents about the effects of elevated temperature in local waterways. While the signage created for Keizer Rapids Park does not specifically target temperature, it does cover pertinent water quality issues. A photograph of the posted sign is located in Appendix A.



Appendix A also contains a letter that was sent to hobby farm owners highlighting a number of water quality issues. Staff received no response from the correspondence that was sent out.

Ben Miller Family Park Restoration Project

The Ben Miller Family Park restoration project was discussed earlier in this document, but it was specifically listed as a BMP in the TMDL Implementation Plan.



Staff feels that this project was very successful. The site has been consistently maintained and limited invasive growth has occurred. The degradation to the bank is beginning to rebound, and the number and size of plantings have been effective in keeping people away from the creek. Staff will use this project as a template for future restoration projects within Keizer.

The Mid-Willamette Watershed Alliance received funding for stream survey work in the region. That work is underway and approximately 6 miles of stream will be assessed in Keizer. The purpose of the program is to identify quality restoration sites. Keizer plans to move forward with a new project in the current fiscal year.

TMDL Matrix

The TMDL Matrix follows this Section. As has been consistent with other reports, the status column of the matrix provides a snapshot of accomplishments.

City of Keizer
TMDL Implementation Plan Matrix – Report Year 3

Pollutant: Bacteria

(Six Minimum Control Measures Listed at the End of Each Table)

SWMP BMP	Source <i>What source of this pollutant is being addressed?</i>	Strategy <i>What is being done, or what will be done to reduce or control pollution from the source?</i>	How <i>Specifically, how will this be done?</i>	Fiscal Analysis	Measure <i>How will successful implementation or completion of this strategy be measured?</i>	Timeline <i>When will the strategy be completed?</i>	Milestone <i>What intermediate goals will be achieved and by when to know what progress is being made?</i>	Status
PE-1	1. Bacteria carried to waterways in storm runoff and piped system	a. Prevent domestic animal waste from reaching waterway	i. Stormwater booth at National Public Works Week celebration in May	Funded	Utilize KP3 and other pledge type programs to document willingness to adopt new behavior	Annually	May 19, 2008 event	<i>Overall, the KP3 program was expanded this year. KP3 was promoted at the Public Work Open House in May 2010. The program was also unveiled during the Iris Festival Parade (Mayor's Pet Parade) and at RiverFair for a pet contest.</i>
			ii. Expand 'doggie' bag program in local parks	Funded	Check bags at scheduled intervals	2011	Currently working with Parks staff and Park Advisory Board for sites and message content	<i>Restocking bags is part of the maintenance schedule for Parks staff. Due to the financial implications of replacing bags, some outreach has occurred telling residents to 'always be prepared before you leave home'</i>
			iii. Use KP3 pledge program	Staff time	Track pledges and continue to expand program	2009	Program developed and initially implemented in 2009	<i>The program was expanded this year to include two other events. See PE-1(i)</i>
			iv. Identify 'hobby farms' within the UGB. Partner for ongoing restoration activity	Staff time	Track activity and contacts	2011	Property location and owner list complete by 2010	<i>No progress occurred on this BMP this year. Stormwater personnel has sent an informational letter to all hobby farm owners with educational material about keeping livestock away from waterways.</i>
			v. Initiate guided hikes by Parks and Stormwater staff to highlight environmental issues of concern along waterways.	Funded	Feedback from participants, number of participants, and requests for programs.	2010	Develop tour content and establish schedule.	<i>No program has been developed at this point for guided hikes. Some interpretive signage was created by local cub scout groups and installed at Keizer Rapids Park (See educational attachments)</i>
			vi. Prepare a resource list for the public. Stormwater links to include local, educational, and regulatory resources	Staff time	Post on website. Use as handouts at community events	2009	Template completed by 2008	<i>The resource list was updated for report year 3</i>

PE-2			vii. Add stormwater-related information to the City's Website	Staff time and web design training – funded	Update annually – track changes	2008 / Ongoing	Preliminary information has been drafted	<i>No significant work was completed for this BMP during the past year. Please see Section 3 of the NPDES Annual Report for a more detailed description</i>
PE		b. Public outreach covering bacteria issues and concerns	viii. Develop traveling display to be used in public settings	Funded	Track locations and presentation material	2008	Initial display material designed and reviewed by May 2008. First display in Council Chambers and then to Public Works open house in May	<i>The display board was utilized for the Public Works Open House, Iris Festival, and the Sustainability Summit held in March 2010 at the Keizer Civic Center</i>
PI-3			i. Storm drain markers	Funded	Number of markers installed	2009 / Ongoing	Storm Drain marker has been chosen and will be ordered in 2008	<i>The storm drain marking project for report year 3 utilized the Mayor and City Council members for the project. See Section 4 of the report for a more detailed accounting of this activity.</i>
PI			ii. Public Review of TMDL Implementation Plan	Staff time	Track presentations, events, etc	Ongoing	Present to Planning Commission for recommended approval by City Council	<i>Staff did not hold a public review of the TMDL Implementation Plan this report year. As was covered in the NPDES Annual Report, there was a great deal of overall program discussion through the effort to increase storm fees. Staff feels that activity was a sufficient review of the plan, how it originated, and its contents.</i>
ID-1		b. Prevent human waste (from cross-connections), oil, grease, paint, and other pollutants from entering the storm system.	i. Develop ordinance to prohibit illicit discharges	Staff time and public notice – funded	City Council adoption	2009	Draft ordinances are being selected for committee review	<i>This BMP is complete. The ordinance is a useful tool for addressing prohibited activity</i>
ID-2			ii. Develop illicit discharges detection and elimination plan	Staff time	Internal review, comments, and feedback from staff	2008	The City presently has two draft examples. Other options will be explored.	<i>This BMP is complete</i>
ID-3			iii. Internal training for implementation of plan	Staff time	Track training topics and dates.	2009	Training schedule being developed	<i>Annual training has occurred this year.</i>
ID-4			iv. Implement the plan	Staff time	Track violations and complaints	2009 / Ongoing	N/A	<i>The Plan is being implemented</i>

Six Minimum Control Measures

PE = Public Education

PI = Public Involvement/Participation

ID = Illicit Discharge Detection and Elimination (IDDE)

CS = Construction Site Runoff Control

DS = Development Standards (Post-Construction Runoff Control)

OM = Operations and Maintenance (Pollution Prevention/Good Housekeeping)

City of Keizer
TMDL Implementation Plan Matrix
Proposed Revised Matrix

Pollutant: Mercury

(Six Minimum Control Measures Listed at the End of Each Table)

SWMP BMP	Source <i>What source of this pollutant is being addressed?</i>	Strategy <i>What is being done, or what will be done to reduce or control pollution from the source?</i>	How <i>Specifically, how will this be done?</i>	Fiscal Analysis	Measure <i>How will successful implementation or completion of this strategy be measured?</i>	Timeline <i>When will the strategy be completed?</i>	Milestone <i>What intermediate goals will be achieved and by when to know what progress is being made?</i>	Status
PE		a. Public outreach covering mercury issues and concerns	i. Prepare a resource list for the public. Stormwater links to include local, educational, and regulatory resources	Staff time	Post on website. Use as handouts at community events	2009	Template completed by 2008	The BMP is complete
PE			ii. Develop traveling display to be used in public settings	Funded	Track events and presentation material	2008	Initial display material designed and reviewed by May 2008.	This BMP is complete
			iii. Prepare educational material for contractors and builders. Develop a 'small project' erosion control plan for additions to developed property such as driveway replacement, patios, home expansion, etc.	Funded	Track applications and required plans	2010/2011	SWAC approved document	Staff has developed a small project permit/plan for additions to existing development such as a new patio, outbuilding, or home expansion. This program will be educational based but will be linked to the ordinance in order to provide penalties for intentional violators. Educational material is being developed for this BMP including a list of low cost BMP strategies
			iv. Coordination internally for development and educational opportunities at Keizer Rapids Park.	Staff time	Utilize educational opportunities directed towards bank stabilization, native species, and development actions	2012	Initial boat ramp design review in 2008	No updates to report on this BMP. The Environmental Program Coordinator has been involved in review of plans and permits.

PI-3		a. Public involvement	i. <u>Storm drain markers</u>	Funded	Number of markers installed	2009 Ongoing	Storm Drain marker has been chosen and will be ordered in 2008	<i>The storm drain installation for this report year was conducted by the Mayor and City Council members. See Section 4 of the NPDES Annual Report for more detail.</i>
CS-1		b. Keep soil on site. Prevent material from entering catchbasins and waterways	i. <u>Develop ordinance to control construction site runoff</u>	Staff time	City Council adoption	2009	DLCD/DEQ example being reviewed. Other drafts considered and will be brought to the Stormwater Advisory Committee (SWAC)	<i>A draft ordinance has been completed and will be fully evaluated by the City's legal counsel. Staff hopes to have the ordinance adopted by January 2011</i>
CS-2			ii. <u>Internal training for field staff</u>	Staff time	Record of meeting and content	2008 Ongoing	Training schedule being developed	<i>Very little comprehensive training has occurred for maintenance personnel. Staff hopes to make this a priority for November and December 2010</i>
CS-3			iii. <u>Plan review, inspections, and enforcement</u>	Staff time	Track staff progress	2010	Coordination with Community Development in 2008 for potential fee increase	<i>No new information to report.</i>
CS-4			iv. <u>Establish hotline to receive complaints from the public</u>	Funded	Develop tracking system	2008	Develop procedure for checking calls and responding	<i>A separate hotline has not been developed, but the after-hours phone system has been updated. Citizens are now routed to the correct responder based on the emergency.</i>
DS-1			v. <u>Develop ordinance to control runoff from new development</u>	Staff time. Public notice is funded	City Council adoption	2010	Staff anticipates utilizing SWAC for this action	<i>See Section 7 of the NPDES Annual Report.</i>
DS-2			vi. <u>Internal training for new development standards</u>	Staff time	Completion of training	2010		<i>No updates</i>
DS-3			vii. <u>Plan review, inspections, enforcement</u>	Staff time. Additional positions funded	Track staff progress	2010		<i>No updates</i>
OM-1			viii. <u>Develop a water quality sensitive O & M program</u>	Staff time	Compare with other jurisdictions and conduct internal review	2009	Development and design to be coordinated with field staff	<i>No updates. Staff anticipates completion of this program prior to the end of the current report year.</i>
OM-2			ix. <u>Internal training for new O & M practices</u>	Staff time	Agenda and instruction content	2009	Preliminary discussions underway	<i>Some initial training has occurred. The City purchased a training video which has been shown to Public Works personnel.</i>
OM-3			x. <u>Catchbasin cleaning</u>	Additional staff funded. Vactor truck funded	Track number of catchbasins cleaned	2008 Ongoing	25% of City catchbasins cleaned annually. High priority cb cleaned annually	<i>This BMP is meeting and exceeding expectations. Stormwater personnel are cleaning far more than 25% of all catchbasins annually.</i>

OM-4			xi. Conduct street sweeping	Funded	Track progress	2008 Ongoing	Sweeping on a monthly basis. This program is currently underway.	<i>This BMP is meeting expectations. The program is ongoing. Total debris removal has been tracked annually and it appears that volume has decreased over a two year period</i>
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Six Minimum Control Measures

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City of Keizer
TMDL Implementation Plan Matrix
Proposed Revised Matrix

Pollutant: Temperature

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SWMP BMP	Source <i>What source of this pollutant is being addressed?</i>	Strategy <i>What is being done, or what will be done to reduce or control pollution from the source?</i>	How <i>Specifically, how will this be done?</i>	Fiscal Analysis	Measure <i>How will successful implementation or completion of this strategy be measured?</i>	Timeline <i>When will the strategy be completed?</i>	Milestone <i>What intermediate goals will be achieved and by when to know what progress is being made?</i>	Status
PE-1	1. Solar radiation and sediment deposition that results in a change in stream profile.	a. Retain mature trees, native vegetation, and encourage tree planting and use of native species for bank stabilization	i. Utilize the annual Consumer Confidence Report (CCR) to provide citywide outreach	Funded	Track number of inserts sent	Ongoing	Mailings scheduled for 2008. Draft is complete.	CCR completed and mailed in May 2010. This year's addition included a one page insert of stormwater related material.
			ii. Design a stormwater brochure to be handed out at meetings and events Revise annually	Funded	Track usage and events. Revise annually	2009	Preliminary design complete. 2008 brochures for open house in May.	The stormwater brochure was revised in 2010
			iii. Identify 5 project sites along Claggett Creek for native tree and shrub planting	Funded	Review aerials, make site visits, coordinate with adjacent property owners	2011	Review of sites. Develop decision matrix for high quality sites.	The BMP is complete
			iv. Implement planting of one or more of the project sites including public participation	Funded	Use internal review to determine most suitable site.	2012	Implement planting. Develop maintenance schedule/	The Ben Miller Family Park restoration project was completed in report year 3. The project site is 5000 sq ft in size and is adjacent to Claggett Creek. Approximately 20 cubic yards of invasives were removed. The Keizer Rotary, Claggett Creek Watershed Council, and Public Works employees all worked at the site.
PE		b. Public outreach covering temperature issues and concerns	i. Prepare a resource list for the public. Stormwater links to include local, educational, and regulatory resources	Staff time	Post on website. Use as handouts at community events	2009	Template completed by 2008	This BMP is complete

			ii. Develop traveling display to be used in public setting covering the impacts of increased water temperature. Display can be changed periodically to cover other stormwater issues such as mercury, and bacteria	Funded	Track locations and feedback	2008	Initial display material designed and reviewed by May 2008. First display in Council Chambers and then to Public Works open house in May 2008	<i>This BMP is complete</i>
			iii. Interpretive signage in parks along Claggett Creek and the Willamette. Signs may also be installed along other water features if appropriate	Staff time / design & construction funded	Number of signs installed and locations	2010	Storm staff will coordinate locations with Parks staff for locations along Willamette and other water features.	<i>Some interpretive signage was installed at Keizer Rapids Park. The design was completed by a local boy scout group</i>
PE-2			iii. Utilize local Channel 23 to provide stormwater education	Staff time	Track programs and content	2008 / Ongoing	Work with field staff to develop program - underway	<i>Very little progress has occurred on this BMP. The City is scheduled to hire a temporary stormwater technician who will be developing a comprehensive PowerPt presentation for Channel 23 by December 31, 2010</i>
PE-3			iv. Participate in Claggett Creek Watershed Council	Staff time	Meetings attended and topics covered	2008 / Ongoing		<i>The Council is meeting at this time but some significant setbacks have occurred. Staff will be assisting the group with recruitment activities</i>
			v. Tighten existing City code to emphasize retention of 'native' vegetation Explore existing code for addition changes that are not time intensive	Staff time	Keep record of code updates and changes	2009 Ongoing	Initial meetings with Community Development staff are underway	<i>No progress on this BMP</i>
			vi. Internal education for field staff directed towards retention of trees along waterways and temperature issues	Staff time	Track presentation content and dates	Ongoing	Training schedule being developed	<i>No progress on this BMP</i>

CS-1		b. Keep soil on site. Prevent material from entering waterways	i. <u>Develop ordinance to control construction site runoff</u>	Staff time	City Council adoption	2009	DLCD/DEQ example being reviewed. Other drafts considered and will be brought to the Stormwater Advisory Committee (SWAC)	<i>A draft ordinance has been completed and will be fully evaluated by the City's legal counsel. Staff hopes to have the ordinance adopted by January 2011</i>
DS-1			v. <u>Develop ordinance to control runoff from new development</u>	Staff time. Public notice is funded	City Council adoption	2010	Staff anticipates utilizing SWAC for this action	<i>See Section 7 of the NPDES Annual Report</i>

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