

**City of Keizer, Oregon**

***TMDL IMPLEMENTATION PLAN  
ANNUAL REPORT – 2007/2008***

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**October 31, 2008**



Sunset Park with the Willamette River in the background

**City of Keizer  
Public Works Department  
Stormwater Division**



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**Attachments**

TMDL Implementation Plan Matrix  
2007/2008 NPDES #102904 Annual Report

**ACRONYMS AND ABBREVIATIONS**

<b>ACWA</b>	<b>Association of Clean Water Agencies</b>
<b>APWA</b>	<b>Association of Public Works Agencies</b>
<b>BMPs</b>	<b>Best Management Practices</b>
<b>CCR</b>	<b>Consumer Confidence Report</b>
<b>CFR</b>	<b>Code of Federal Regulations</b>
<b>City</b>	<b>City of Keizer, Oregon</b>
<b>CS</b>	<b>Construction Site Standards</b>
<b>CWA</b>	<b>Clean Water Act</b>
<b>DEQ</b>	<b>Oregon Department of Environmental Quality</b>
<b>DLCD</b>	<b>Department of Land Conservation and Development</b>
<b>DSL</b>	<b>Oregon Department of State Lands</b>
<b>DS</b>	<b>Development Standards</b>
<b>DWPA</b>	<b>Drinking Water Protection Areas</b>
<b>EPA</b>	<b>Environmental Protection Agency</b>
<b>ERU</b>	<b>Equivalent Residential Unit</b>
<b>ESA</b>	<b>Endangered Species Act</b>
<b>FTE</b>	<b>Full Time Equivalent</b>
<b>FY</b>	<b>Fiscal Year</b>
<b>GIS</b>	<b>Geographic Information System</b>
<b>IDDE</b>	<b>Illicit Discharge and Elimination</b>
<b>IPM</b>	<b>Integrated Pest Management</b>
<b>MEP</b>	<b>Maximum Extent Practicable</b>
<b>MS4</b>	<b>Municipal Separate Storm Sewer System</b>
<b>NOI</b>	<b>Notice of Intent</b>
<b>NPDES</b>	<b>National Pollutant Discharge Elimination System</b>
<b>OAR</b>	<b>Oregon Administrative Rules</b>
<b>ODFW</b>	<b>Oregon Department of Fish and Wildlife</b>
<b>O &amp; M</b>	<b>Operation &amp; Maintenance</b>
<b>ORS</b>	<b>Oregon Revised Statues</b>
<b>PE</b>	<b>Public Education</b>
<b>Permittee</b>	<b>City of Keizer</b>
<b>PI</b>	<b>Public Involvement and Participation</b>
<b>PNCWA</b>	<b>Pacific Northwest Clean Water Association</b>
<b>PY</b>	<b>Permit Year</b>
<b>REPA</b>	<b>Regional Erosion Prevention Awards</b>
<b>RR</b>	<b>Record Keeping and Reporting</b>
<b>SWAC</b>	<b>Stormwater Advisory Committee</b>
<b>SWMP</b>	<b>Storm Water Management Plan or Program</b>
<b>TMDL</b>	<b>Total Maximum Daily Load</b>
<b>UGB</b>	<b>Urban Growth Boundary</b>
<b>UIC</b>	<b>Underground Injection Control</b>
<b>USACE</b>	<b>United States Army Corps of Engineers</b>
<b>USFWS</b>	<b>United States Fish and Wildlife Service</b>
<b>USGS</b>	<b>United States Geologic Survey</b>



## **Section 1 – Executive Summary**

On September 21, 2006 the Department of Environmental Quality (DEQ) issued the Willamette Basin Total Maximum Daily Load (TMDL) as an Order, and submitted it to the Environmental Protection Agency (EPA) for Approval. The EPA approved the TMDL on September 29, 2006 which set about the specified requirement of submittal of TMDL Implementation Plans by Designated Management Agencies (DMAs) throughout the Basin.

The City of Keizer submitted a draft TMDL Implementation Plan to DEQ on March 12, 2008. After discussions with DEQ, and suggested revisions to the draft document, DEQ approved the Keizer TMDL Implementation Plan on April 21, 2008. As is stated in the approved Plan, the MS4 permit and the TMDL Implementation Plan will function concurrently. As such, this first report for the TMDL Implementation Plan is a reflection of Permit Year 1 (PY1). Given the Plan was approved in April 2008, this first year report is brief and in-depth program development and implementation has not yet occurred. Next year's report will include a more detailed accounting of applicable activities and program progress. The attached **TMDL Implementation Plan Matrix** shows the status of activities that have occurred to date.

While the Plan has only been in place for a few short months, Public Works personnel have completed solid goals and are actively moving forward with water quality minded activities. The storm drain marking program has started with the first project beginning in August 2008. 87 markers were installed in the Gubser neighborhood as part of an Eagle Scout project. A second installation is scheduled for late spring 2009 with the Boys and Girls Club. The Illicit Discharge Detection and Elimination Plan has been completed and City staff have been trained on how to properly respond to complaints. Finally, a Stormwater Advisory Committee (SWAC) has been organized to assist with the development of several stormwater related ordinances. The committee has had two meetings thus far and are currently working on an ordinance to prohibit illicit discharges and dumping. Additional program progress is provided in the attached matrix and the following pages of this report.

As a point of clarification, the Environmental Program Coordinator was hired in February 2008 under the working title of Stormwater Program Manager. This position has been reclassified since that time in order to meet the current organizational structure of the Public Works Department. Earlier correspondence with DEQ may reference the Stormwater Program Manager, but both positions are held by the same person. For the purpose of this report, and until otherwise notified, the person responsible for implementation and coordination of the referenced Plan, shall be the Environmental Program Coordinator.

## **Section 2 – Public Involvement**

The City of Keizer TMDL Implementation Plan for the Willamette Basin specified that the Plan would be made available to the Public. This goal has been accomplished with additional activities being anticipated for the future.

The Environmental Program Coordinator met with the Gubser Neighborhood Association on April 17, 2008, and provided a copy of the matrix to the residents attending that meeting. The Plan has also been posted to the City's website.

On June 18, 2008, the Environmental Program Coordinator brought the Plan before the City of Keizer Planning Commission. A PowerPoint presentation was utilized which covered non-point source pollutants, pollutants of concern in the Willamette Basin and their sources, specifications found in the Plan itself, and upcoming projects the City will be implementing. This meeting brought about significant interest from the Commission, and as a result, the acting Chair volunteered to participate with the newly formed Stormwater Advisory Committee (SWAC). The Planning Commission recommended that the Plan be sent to City Council with a recommendation for adoption. The City of Keizer formally adopted the TMDL Implementation Plan in July 2008.

**Future Public Involvement Activities** - Stormwater staff has made significant progress in bringing this Plan to the community, but it is anticipated that this work will continue. Public outreach involving stormwater will usually contain an element of the Plan when at all possible.

Finally, the SWAC has a copy of the TMDL Implementation Plan in their committee binders. Staff has added review of the Plan to their schedule for spring of 2009.

### **Section 3 – Interim Progress / Performance Monitoring**

**Overview** – As was stated in the Executive Summary of this report, the City of Keizer is actively working on the strategies listed in the Implementation Plan. The TMDL Implementation Plan functions concurrently with the City's MS4 permit, and a copy of the Permit Year 1 Annual Report is attached for further reference on the work being completed by the City of Keizer. The progress items listed below are not intended to be a complete accounting of activities that have been undertaken in accordance with this Plan.

**Bacteria** – Public Works staff emphasized pet waste reduction at the annual Public Works open house in May 2008. The event hosted approximately 600 attendees. Pet food samples were available and information handed out regarding the use of 'filler-free' food to reduce total waste. The new educational display board was used at this event which covered information on the impacts of feeding waterfowl, and property maintenance to deter urban pests.

Additional doggie pot stations are planned for existing parks within the City. Adoption of the Parks Master Plan sets forth additional improvements in a number of Keizer recreation areas that will either be equipped with stations or receive additional stations.

As was noted in the Executive Summary, the Illicit Discharge Detection and Elimination (IDDE) Plan was completed in June. The Plan sets forth a process to identify, eliminate, and prevent illicit discharges. Training has been conducted for Public Works staff, the Police Department, and administrative support staff that answer incoming phone calls from the public.

**Mercury** – Stormwater personnel has made good use of the new traveling display board to cover topics relating to elevated levels of mercury in surface water. The display board was used at the Public Works open house in May 2008, at the Marion County Fair, in City Council Chambers, at the opening of the off

leash dog park at Keizer Rapids Park, and at a City of Salem stormwater open house. Topics covered include retention of streamside vegetation, impacts to fish, and channel morphology.

The first storm drain marking installation occurred in August 2008. 87 markers were installed as part of an Eagle Scout project. The Environmental Program Coordinator required that the Scout conduct independent research on stormwater related issues and design a brochure to hand out to neighbors in the area. An additional requirement was that this individual contact the local media for coverage of the project. Two articles were carried in local newspapers.



As was stated earlier, the Stormwater Advisory Committee has been organized and are currently meeting. Their first task is to develop the illicit discharge ordinance. Staff anticipates that they will be working on the construction site runoff control ordinance early in 2009.

Public Works staff have started the process of developing an Operations and Maintenance Program for the City. The process is expected to be completed by late spring 2009.

A VacCon truck was purchased in July 2008 and stormwater field staff are actively cleaning catchbasins within the City. The Stormwater Management Plan specifies cleaning of 25% of catchbasins annually. The Stormwater Field Supervisor is tracking the amount of debris removed.

Wheat LLC was awarded a 3 year contract with the City for street sweeping. This local company provides 24 hour emergency service if needed. The entire City is swept once a month with collectors and arterials being cleaned twice a month. Additional sweeping takes place in October and November due to heavy leaf fall.



**Temperature** – The annual Consumer Confidence Report (CCR) for drinking water was utilized to run an informative article on stormwater in June 2008. The CCR is mailed to all households, including apartments, in the City of Keizer. The Stormwater Program Coordinator also submitted an article to the Keizer Quarterly that was printed in October 2008. It too is mailed to all Keizer households.

A stormwater brochure has been designed and been used at neighborhood association meetings, the Marion County Fair, the Public Works open house, and at the opening of the off leash dog park at Keizer Rapids Park.

As was mentioned earlier, the SWAC is on course to develop the construction site runoff control ordinance early in 2009.

Public Works staff has discussed interpretive signage installation for 2008/2009. Sign installations for 2008/2009 are scheduled for Keizer Rapids Park, Sunset and Wallace House Parks. These recreation areas are all adjacent to the Willamette River.

## **Section 4 – Recordkeeping and Reporting**

With the TMDL Implementation Plan in its infancy, evaluation of effectiveness is not appropriate at this time. The Stormwater Advisory Committee will review the Plan in May/June 2009. Public Works personnel participates with the SWAC and will be able to provide specific information on the Plan and its contents. Any updates to the Plan will be captured in the 2008/2009 report.

In order to actively keep a continuous record of activities and programs that pertain to the Implementation Plan, stormwater personnel utilizes a table to track activities. In addition, information in common to both the MS4 permit and Implementation Plan are shared by the appropriate Public Works staff.

**City of Keizer  
TMDL Implementation Plan Matrix  
2008 Report / Year 1**

**Pollutant: Bacteria**

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

<b>SWMP BMP</b>	<b>Source</b> <i>What source of this pollutant is being addressed?</i>	<b>Strategy</b> <i>What is being done, or what will be done to reduce or control pollution from the source?</i>	<b>How</b> <i>Specifically, how will this be done?</i>	<b>Fiscal Analysis</b>	<b>Measure</b> <i>How will successful implementation or completion of this strategy be measured?</i>	<b>Timeline</b> <i>When will the strategy be completed?</i>	<b>Milestone</b> <i>What intermediate goals will be achieved and by when to know what progress is being made?</i>	<b>Status</b>
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	# of surveys filled out and promotional items given away	Annually	May 19, 2008 event	<i>Event held 5/19/08. Public Works staff on hand to interact with public. Aprx 600 attendees. 270 sample bags of high quality dog food given away promoting pet waste reduction. 150 doggie bag containers given away. Presentation board utilized covering awareness of bacteria issues associated with animal waste.</i>  <i>Survey has not been developed yet. Plan for use in 2009</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>Parks Master Plan, adopted by City Council on February 19, 2008, calls for additional doggie pot stations in existing parks and developing parks.</i>  <i>Stations are checked daily on weekdays during the summer months and twice a week during the winter/off season. Informal tracking indicates success of the program in that expenditures for replacements have risen steeply in the last two years.</i>
			iii. Design a pet waste program with 'backyard focus'	Staff time	Community feedback.	2010	Research, and draft study completed by 2009	<i>Initial steps taken through promotion of high quality pet food – smaller waste production. Contacted potential regional partners such as Copper Creek Mercantile and Everything Pawsible.</i>
			iv. Identify 'hobby farms' within the UGB. Contact residents with educational information.	Staff time	Track properties, owners, and contact dates	2011	Property location and owner list complete by 2010	<i>Preliminary aerial photo study and initial coordination with Community Development staff on land use designation.</i>
			v. Add additional interpretive signage in Parks near Willamette River and other waterways Utilize new off leash area at Keizer Rapids	Funded	Design and installation of signs	2011	Identify appropriate locations by 2008	<i>Parks Master Plan adopted by City Council on February 19, 2008.</i>  <i>Sign installation to commence in 2008/2009 with target locations near the Willamette River. Keizer Rapids Park, Sunset, and Wallace House Parks will see new signs in 2008/2009</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>Preliminary resource list developed in April 2008. Document to be updated on a regular basis to capture the most current information.</i>  <i>Resource list used at Public Works open house in May 2008. Also located in the lobby at Keizer City Hall and posted on the City website.</i>
PE-2			vii. Add stormwater-related information to the City's Website	Staff time and web design training – funded	Website counter	2008 / Ongoing	Preliminary information has been drafted	<i>This project is ongoing. General stormwater information has been posted to the website, a brochure, the TMDL Implementation Plan, along with the resource information listed above.</i>  <i>Staff is actively using the website for updates which pertain to stormwater activities such as outfall inspections.</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>Presentation board has been purchased. Developed educational material covers bacteria, temperature, mercury, and other stormwater information. The board has been utilized in City Council chambers, at the Public Works open house in May 2008, at a City of Salem Stormwater open house, at the opening of an off-leash dog park adjacent to the Willamette River, and at the Marion County Fair. The presentation material will be updated periodically to incorporate new information.</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>First installation project 8/23/08. 87 Storm drain markers installed in Gubser neighborhood. Eagle Scout project. Educational flyer designed by the Scout and distributed throughout the neighborhood. Media coverage by local newspapers.</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>Stormwater staff gave a presentation to the Planning Commission regarding the purpose and content of the TMDL Implementation Plan on June 18, 2008. The Plan is posted on the City's website. The Stormwater Advisory Committee (SWAC) will review the document.</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>Stormwater Advisory Committee (SWAC) has been organized to assist staff with development of the Illicit Discharge Ordinance. The SWAC began meeting in September 2008. City Council approval of the new ordinance is anticipated by June 30, 2009.</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>The Plan was written and reviewed by Public Works staff, including field staff, in June 2008. The IDDE Plan addresses illicit discharges, illegal dumping, and illegal connections. It provides a process to identify, eliminate, and prevent illicit discharges.</i>

ID-3			iii. Internal training for implementation of plan	Staff time	Track training topics and dates.	2009	Training schedule being developed	<i>Training has been completed for administrative staff who answer incoming calls, Public Works field staff (all divisions), the Community Development Department, and a PowerPoint presentation has been developed for the Police Dept. Staff will provide Plan specifics to other applicable agencies such as the Keizer Fire Dept and the City of Salem.</i>
ID-4			iv. Implement the plan	Staff time	Track violations and complaints	2009 / Ongoing	N/A	<i>Spreadsheet developed and is being utilized for tracking. Process for response and tracking included in IDDE Plan.</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  
2008 Report / Year 1**

**Pollutant: Mercury**

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

<b>SWMP BMP</b>	<b>Source</b> <i>What source of this pollutant is being addressed?</i>	<b>Strategy</b> <i>What is being done, or what will be done to reduce or control pollution from the source?</i>	<b>How</b> <i>Specifically, how will this be done?</i>	<b>Fiscal Analysis</b>	<b>Measure</b> <i>How will successful implementation or completion of this strategy be measured?</i>	<b>Timeline</b> <i>When will the strategy be completed?</i>	<b>Milestone</b> <i>What intermediate goals will be achieved and by when to know what progress is being made?</i>	<b>Status</b>
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	<i>Preliminary resource list developed in April 2008. Document to be updated on a regular basis to capture the most current information. The resource list has been used the Public Works open house, gubser neighborhood association meetings, and Lakeside Condo Owners meetings.</i>
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.	<i>Presentation board has been purchased. Developed educational material covers bacteria, temperature, mercury, and other stormwater information. The board has been utilized in City Council chambers, at the Public Works open house in May 2008, at a City of Salem Stormwater open house, at the opening of an off-leash dog park adjacent to the Willamette River, and at the Marion County Fair. The presentation material will be updated periodically to incorporate new information.</i>
			iii. Develop handout materials for contractors. Diagrams and resource lists.	Funded	Track number given away	2008/2009	Staff is reviewing field manuals. Preliminary draft ready for internal review in 2008	<i>Field manuals will be reviewed by Stormwater Advisory Committee early in 2009 in conjunction with development of construction site runoff control ordinance. Keizer has little developable land and an Urban Growth Boundary expansion is not anticipated for several years. Ordinance and program development will occur in 2008/2009, but is anticipated to be a planning effort for the future.</i>
			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	Ongoing	Initial boat ramp design review in 2008	<i>Stormwater staff have notified Community Development staff of the need to coordinate for activities in Keizer Rapids Park that is under their review. Public Works staff, including Parks staff are discussing how best to implement educational material as the park develops. A small kiosk has been constructed that may be utilized for temporary informational items.</i>
PI-3		a. Public involvement	i. Storm drain markers	Funded	Number of markers installed	2009 Ongoing	Storm Drain marker has been chosen and will be ordered in 2008	<i>First installation project 8/23/08. 87 Storm drain markers installed in Gubser neighborhood. Eagle Scout project. Educational flyer designed by the Scout and distributed throughout the neighborhood. Media coverage by local newspapers.</i>

CS-1		b. Keep soil on site. Prevent material from entering catchbasins and waterways	i. <a href="#">Develop ordinance to control construction site runoff</a>	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>Stormwater Advisory Committee (SWAC) has been organized to assist staff with development of construction site runoff control ordinance. The SWAC began meeting in September 2008. City Council approval of the new ordinance is anticipated by June 30, 2009.</i>
CS-2			ii. <a href="#">Internal training for field staff</a>	Staff time	Record of meeting and content	2008 Ongoing	Training schedule being developed	<i>Stormwater Field Supervisor is attending SWAC meetings in order to be familiar with program and ordinance content. Overall training is anticipated to commence as the ordinance is being developed.</i>
CS-3			iii. <a href="#">Plan review, inspections, and enforcement</a>	Staff time	Track staff progress	2010	Coordination with Community Development in 2008 for potential fee increase	<i>No progress to report at this time. The construction site runoff control program and ordinance will be developed after the Illicit Discharge Ordinance prior to the end of fiscal year 2008/2009. The process for plan review will be developed within that time frame.</i>
CS-4			iv. <a href="#">Establish hotline to receive complaints from the public</a>	Funded	Develop tracking system	2008	Develop procedure for checking calls and responding	<i>A process to receive complaints regarding illicit discharges was developed in 2008 with the design of the IDDE Plan. Complainants can call the main City Hall telephone number at any time of the day or night and be directed to Public Works personnel. The direct number to the after-hours phone is also published in the telephone book. Staff will evaluate the need for a separate 'hotline' for runoff control after the ordinance has been developed.</i>
DS-1			v. <a href="#">Develop ordinance to control runoff from new development</a>	Staff time. Public notice is funded	City Council adoption	2010	Staff anticipates utilizing SWAC for this action	<i>Stormwater Advisory Committee (SWAC) has been organized to assist staff with development of three new ordinances including runoff control from new development. The SWAC began meeting in September 2008. Staff anticipates the SWAC will begin work on this ordinance in 2009/2010</i>
DS-2			vi. <a href="#">Internal training for new development standards</a>	Staff time	Completion of training	2010		<i>No progress to report. Staff anticipates training will occur as the ordinance is being developed.</i>
DS-3			vii. <a href="#">Plan review, inspections, enforcement</a>	Staff time. Additional positions funded	Track staff progress	2010		<i>No progress to report. Staff anticipates plan review, inspections, and enforcement will occur in conjunction with ordinance development.</i>
OM-1			viii. <a href="#">Develop a water quality sensitive O &amp; M program</a>	Staff time	Compare with other jurisdictions and conduct internal review	2009	Development and design to be coordinated with field staff	<i>Public Works staff to begin meeting in September 2008. Initial discussion will look at potential pollutants likely associated with City facilities, and potential pollutants likely associated with City activities.</i>
OM-2			ix. <a href="#">Internal training for new O &amp; M practices</a>	Staff time	Agenda and instruction content	2009	Preliminary discussions underway	<i>A training dvd has been purchased from Excal Visual 'Municipal Storm Water Pollution Prevention' The dvd will be shown annually to existing field staff and upon hire for new employees.</i>
OM-3			x. <a href="#">Catchbasin cleaning</a>	Additional staff funded. Vector truck funded	Track number of catchbasins cleaned	2008 Ongoing	25% of City catchbasins cleaned annually. High priority cb cleaned annually	<i>A VacCon truck was purchased in July 2008. After training stormwater field staff, the unit was used to assist in location of outfalls. Once the citywide inventory was complete catchbasin cleaning began at the end of August. The crew has divided the City into sections and will be cleaning in the southwest portion of the City initially.</i>

OM-4			xi. Conduct street sweeping	Funded	Track progress	2008 Ongoing	Sweeping on a monthly basis. This program is currently underway.	<i>Wheat LLC entered into a 3 year contract with the City of Keizer in 2008. The entire City is swept once a month with arterials and collector streets being swept twice a month. Wheat LLC is also on-call for emergency situations 24 hours a day. They provide sweeping services after civic events such as the annual Iris Festival in May.</i>
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**Six Minimum Control Measures**  
PE = Public Education  
PI = Public Involvement/Participation  
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**City of Keizer  
TMDL Implementation Plan Matrix  
2008 Report / Year 1**

**Pollutant: Temperature**

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

<b>SWMP BMP</b>	<b>Source</b> <i>What source of this pollutant is being addressed?</i>	<b>Strategy</b> <i>What is being done, or what will be done to reduce or control pollution from the source?</i>	<b>How</b> <i>Specifically, how will this be done?</i>	<b>Fiscal Analysis</b>	<b>Measure</b> <i>How will successful implementation or completion of this strategy be measured?</i>	<b>Timeline</b> <i>When will the strategy be completed?</i>	<b>Milestone</b> <i>What intermediate goals will be achieved and by when to know what progress is being made?</i>	<b>Status</b>
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	<b>i. Prepare a water bill insert for citywide mailing.</b>	Funded	Track number of inserts sent	2009	Mailings scheduled for 2008. Draft is complete.	<i>The annual Drinking Water Consumer Confidence Report (CCR) was sent to all Keizer households, including apartment, in June 2008. The CCR included a section on Stormwater</i>  <i>The Public Works Department will also be utilizing a monthly column in the local newspaper to keep the public informed on utility type issues. Staff anticipates that three articles during the year will cover stormwater topics.</i>
			<b>ii. Design a stormwater brochure to be handed out at meetings and events</b>	Funded	Track useage and events	2009	Preliminary design complete. 2008 brochures for open house in May.	<i>Brochure has been designed and used at the Public Works open house, neighborhood association meetings, and at the Marion County Fair.</i>
			<b>iii. Identify 5 project sites along Claggett Creek for native tree and shrub planting</b>	Funded	Review aerials, make site visits, coordinate with adjacent property owners	2011	Review of sites. Develop decision matrix for high quality sites.	<i>The project has been discussed internally. Staff is looking at the east side of Claggett Creek through a portion of this City that may provide opportunities.</i>
			<b>iv. Implement planting of one or more of the project sites including public participation</b>	Funded	Use internal review to determine most suitable site.	2012	Implement planting. Develop maintenance schedule/	<i>No progress to report at this time. Plantings will be planned in accordance with the selected sites.</i>  <i>Staff may be looking at developing a resource guide for streamside property owners in accordance with development of the illicit discharge ordinance. The expectation is that the ordinance will require retention of streamside vegetation in order to abate erosion.</i>
PE		b. Public outreach covering temperature issues and concerns	<b>i. Prepare a resource list for the public. Stormwater links to include local, educational, and regulatory resources</b>	Staff time	Post on website. Use as handouts at community events	2009	Template completed by 2008	<i>Preliminary resource list developed in April 2008. Document to be updated on a regular basis to capture the most current information. The resource list has been used the Public Works open house, gubser neighborhood association meetings, and Lakeside Condo Owners meetings.</i>

			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>Presentation board has been purchased and developed educational material covers bacteria, temperature, mercury, and other stormwater information. The board has been utilized in City Council chambers, at the Public Works open house in May 2008, at a City of Salem Stormwater open house, at the opening of an off-leash dog park adjacent to the Willamette River, and at the Marion County Fair. The presentation material will be updated periodically to incorporate new information.</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>Parks Master Plan adopted by City Council on February 19, 2008.  Sign installation to commence in 2008/2009 with target locations near the Willamette River. Keizer Rapids Park, Sunset, and Wallace House Parks will see new signs in 2008/2009</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>Promotion of annual Public Works open house and new stormwater program in May 2008. Public Works staff will continue to explore opportunities.</i>
PE-3			iv. Participate in Claggett Creek Watershed Council	Staff time	Meetings attended and topics covered	2008 / Ongoing	<i><u>The Claggett Creek Watershed Council is not meeting at this time. Staff will attend neighborhood association meetings until the council reconvenes. City staff is currently involved in a reorganization effort with Marion County and the City of Salem.</u></i>	<i>Little progress has occurred on this issue. Some tentative interest has been shown locally about reconvening a watershed council, but nothing tangible has been produced. Staff indicated in the NPDES Annual Report that stormwater staff will attend other civic meetings such as neighborhood association gatherings and the like, in order to meet the intent of this BMP. Should the watershed council reorganize, staff will begin attending those meetings.</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>Progress for this BMP has been limited. Stormwater staff anticipates more coordination with Community Development staff in 2008/2009.</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>Little formal training has occurred for field staff on this issue, however, the Environmental Program Coordinator is involving field staff in resident consulting along waterways.</i>
CS-1		b. Keep soil on site. Prevent material from entering waterways	i. Develop ordinance to control <u>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>Stormwater Advisory Committee (SWAC) has been organized to assist staff with development of construction site runoff control ordinance. The SWAC began meeting in September 2008. City Council approval of the new ordinance is anticipated by June 30, 2009.</i>
DS-1			v. Develop ordinance to control <u>runoff from new development</u>	Staff time. Public notice is funded	City Council adoption	2010	Staff anticipates utilizing SWAC for this action	<i>Stormwater Advisory Committee (SWAC) has been organized to assist staff with development of three new ordinances including runoff control from new development. The SWAC began meeting in September 2008. Staff anticipates the SWAC will begin work on this ordinance in 2009/2010</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)