



City of Keizer, Oregon

**ANNUAL REPORT
PERMIT YEAR 3 – 2009 / 2010
STORMWATER NPDES PERMIT #102904**

October 28, 2010



Photo by Mike Griffin

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**Certification Regarding the City of Keizer
NPDES Municipal Stormwater Annual Report 2009 / 2010**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

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ACRONYMS AND ABBREVIATIONS

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



Executive Summary

The City of Keizer holds National Pollutant Discharge Elimination System (NPDES) permit No. 102904, which was issued in March 2007. The City is submitting the Permit Year 3 (PY3) Annual Report as is required under that permit. The sections included in this report are consistent in format with previous reports and provide the documentation and program review as is listed in the City's Stormwater Management Plan (SWMP). Keizer's stormwater program is implemented by City personnel from the Public Works Department, specifically the Stormwater Division.

As will be discussed in greater detail throughout the following report, the City's accomplishments with program implementation during this permit year are largely tied to the successful effort to increase the existing stormwater fee in order to obtain additional resources. While staff has worked diligently at meeting timelines and goals for previous permit years, limited staffing levels have resulted in a program that is well behind schedule. In order to achieve success during this permit term, City staff set aside program implementation during 2009/2010 to some extent in order to address staffing deficiencies. The effort has been successful in terms of two new technical positions and one full time temporary position for 2010/2011.

Overall the City of Keizer is behind schedule on three major programs associated with the NPDES permit and the Phase II minimum control measures including the Construction Site Runoff program, the Post Construction program, and the Operations and Maintenance program. The BMPs listed under the Construction Site Runoff program were to be implemented in Permit Year 2. While the goals have not yet been met for this minimum control measure, there has been progress in implementation in PY3. The Stormwater Advisory Committee (SWAC) has had the opportunity to review 2 proposed erosion and sediment control plans. One of two has been unanimously approved and the other is in draft stage. A draft ordinance has been developed and educational material is being developed.

Very little work has been done on the Post Construction program and staff does not anticipate significant strides towards compliance until 2011. With that in mind, the City is aware that a trend toward onsite water quality and quantity retention is a beneficial stormwater tool. The Public Works Department has established the requirement of low impact development techniques in some of the larger commercial development adjacent to Interstate 5 at the Keizer Station. Furthermore, the Public Works Department is requiring low impact development through the Design Standards for all new commercial development. Staff is confident this type of requirement will help set the stage for the new Post Construction program.

The Operations and Maintenance program required in minimum control measure #6 has seen some progress, but comprehensive development will not be completed until 2011. Public Works personnel have had the opportunity to see an instructional video on good housekeeping



practices and some internal training has occurred; however, the Environmental Program Coordinator has not had the staffing resources to fully develop the program.

The Public Works Department has been very successful with some of the short term projects listed in the SWMP. Public education and outreach, public participation and involvement, and illicit discharge detection and elimination are all minimum control measures that have seen successful activity over the past year. These components of the program are well established and are easily implemented over the course of the year.

The City of Keizer faces the challenge of implementing three stormwater programs which include the NPDES program, the TMDL Implementation Plan for the Willamette Basin, and a pending Water Pollution Control Facilities (WPCF) Permit for underground injection control (UIC) devices. Despite a substantial workload, the Environmental Program Coordinator and Public Works personnel look forward to utilizing new staff to make significant strides in Permit Year 4.



Section 1 - *Introduction*

1.1 Background

The federal Clean Water Act (CWA) was amended in 1987 to include the requirement that stormwater be regulated as a point source discharge under the National Pollutant Discharge Elimination System (NPDES) program. In 1990, the Environmental Protection Agency (EPA) developed regulations for stormwater discharges that were applicable to entities that own and operate municipal separate storm sewer systems (MS4s). The program was employed in two phases with Phase I regulations first being applied to large MS4s with populations of 100,000 or more. Phase II regulations were adopted in 1999 for small MS4s. In Oregon, the Department of Environmental Quality (DEQ) has been delegated authority from the EPA for the NPDES program.

As a result of the new NPDES Phase II requirements, the City of Keizer established a citizen's advisory committee to assist in the development of a stormwater management strategy that would meet state and federal regulations, and was suitable for the City of Keizer. The original Stormwater Task Force worked with staff and a consultant to establish the Stormwater Management Plan (SWMP) and a stormwater utility fee.

After filing an application for an NPDES Permit, the City of Keizer was notified in a letter dated March 12, 2007, that the public review process for the Phase II Municipal Separate Storm Sewer System (MS4) permit for the City had been completed by the Department of Environmental Quality (DEQ). NPDES Permit No. 102904 (DEQ File No. 100032) was issued to the City of Keizer, Oregon. The Permit authorizes the discharge of stormwater from all municipal separate storm sewer system outfalls owned and operated by the City.

1.2 Annual Report Requirements

In accordance with Schedule B(2) of the Permit, the City of Keizer as the permittee must submit an annual report to DEQ by November 1 of each year for the time period of July 1 through June 30. The annual report must contain:

1. *The status of compliance with permit conditions, an assessment of the appropriateness of the identified BMPs, progress towards achieving the statutory goal of reducing the discharge of pollutants to the maximum extent practicable (MEP) , and the measurable goals for each of the minimum control measures;*



2. *Results of information collected and analyzed, if any, during the reporting period, including evaluation criteria used to assess the success of the program at reducing the discharge of pollutants to the MEP;*
3. *A summary of the stormwater activities the permittee plans to undertake during the next reporting cycle, including a schedule for implementation;*
4. *A description of changes made to the SWMP, including changes to BMPs or measurable goals identified in the SWMP;*
5. *Information on all new additions or removals of annexed areas that result in an expansion or contraction of the MS4's boundaries;*
6. *Notice that the permittee is relying on another government entity to satisfy some of the permittee's permit obligations (if applicable); and*
7. *Number and nature of enforcement actions taken.*

This document serves as the Permit Year 3 (PY3) Annual Report for the City of Keizer. The Environmental Program Coordinator is responsible for the implementation or coordination for the best management practices (BMPs) listed within the SWMP. The Public Works Superintendent supervises field personnel; however, those activities listed in the SWMP that are the responsibility of field staff, such as enforcement, inspection, and response to water quality issues are developed by the Environmental Program Coordinator with assistance from the Stormwater Field Supervisor. The Environmental Program Coordinator anticipates ongoing assistance to field personnel with the requirements and natural resource issues related to stormwater and water quality.

The City of Keizer does not rely on other government entities to satisfy any of the permit obligations. The City of Keizer does utilize the City of Salem as support for sanitary sewer issues. While Keizer owns the sewer system within the City's UGB, the City of Salem provides maintenance and repair of that system through an IGA. The City of Keizer would also utilize outside agencies in the event of an emergency beyond the City's response capacity. A large scale spill or accident might require a response from the Keizer Fire District, the City of Salem Fire Department or Public Works Environmental Services group, or the Marion County Fire District.

1.3 Contents

As is the case with the PY2 Annual Report, the introduction found in this section serves as background documentation for the stormwater program for the City of Keizer and covers permit requirements. Section 2 will discuss progress of the program as a whole and the evolving



effectiveness strategy. The effectiveness strategy is designed to provide a means to evaluate the program elements and control measures.

Sections 3 through 8 of this report will discuss the individual progress and specifications of adherence to the six minimum control measures required through the Stormwater Management Plan (SWMP). The referenced control measures are as follows:

1. Public Education and Outreach
2. Public Involvement/Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Stormwater Runoff Control
5. Post-Construction Stormwater Management in New Development and Redevelopment
6. Pollution Prevention in Municipal Operations

Sections 9 through 12 cover those other components required through the permit that were not previously mentioned such as record-keeping, SWMP review, and enforcement actions for PY3. Section 13 is an updated overview of the storm sewer system and the waterways which receive stormwater from the City of Keizer. Section 14 is a discussion on progress towards reducing discharges to the maximum extent practicable (MEP) under Schedule B2(a) of the NPDES Permit. Section 15 is included to capture other noteworthy actions or activities that do not fall easily within other Sections of this report. In order to reduce redundancy, Section 16 has been added to the report to capture activities covered under the TMDL Implementation Plan that are not covered in the Annual Report.

Those sections of the report that pertain to the minimum control measures will be formatted consistently with the following subsections:

Overview
Tasks Completed
Effectiveness Summary
SWMP Revisions / Future Tasks

The intent of this layout is to provide a less demanding review of progress, documentation, and specifications related to each control measure.



Section 2 – Program Overview / Effectiveness Strategy

2.1 Program Overview

The City of Keizer was able to move forward to some extent with the implementation of the SWMP in PY3, but significant progress did not occur. The City remains behind on the established timeline for completion of tasks outlined in the SWMP.

As was indicated in earlier reports, the program has been lean since its initial implementation. The PY2 Annual Report discussed the resource limitations for stormwater program implementation and with that in mind, the Environmental Program Coordinator put a substantial amount of effort into assisting the Public Works Director with securing support from the City Council and Budget Committee for a stormwater fee increase. That effort was successful. As the City enters Permit Year 4, two new fully funded stormwater positions have been secured as well as funding for one full time temporary position that will be in place throughout the remainder of PY4. The two new full time position titles are the Senior Environmental Program Technician and the Environmental Program Technician. These employees were hired in mid-September 2010.

2.2 Program Effectiveness Strategy and Discussion

As was discussed in Section 2.1, the City of Keizer has been successful in securing a stormwater fee increase. While the Environmental Program Coordinator recognizes that the City has fallen behind the established timeline for a number of BMPs listed under the minimum control measures, our hope is that with additional resources Keizer will see significant success in program implementation in Permit Year 4. The process for acquiring the additional funding is discussed in greater detail in Section 15.

Questionnaire

During PY3 a stormwater questionnaire was mailed out as an insert in utility bills. See Appendix A . The Public Works Department received 800 responses, but during data entry an error occurred which resulted in capturing only responses from 750 residents.

From a participation perspective, the Environmental Program Coordinator views this means of soliciting information as being successful. The City received far more responses from this questionnaire than they received for the annual City Survey. That being said, the results do not show a significant trend in any one area of weakness in regard to stormwater or water quality.



The revised questionnaire that will be developed and sent out in PY4 will need to be written carefully to capture a more significant understanding of the perception of stormwater and water quality within the City of Keizer.

As to the results for the PY3 questionnaire, the data shows that the majority of respondents use local waterways for passive recreation such as wildlife viewing, or nature walks. Significantly fewer residents use waterways for swimming or boating.

For the remainder of the questions at least some respondents indicated that they were willing to make a behavior change to protect water quality; however, scores often showed either that they were already participating in good behavior or the question did not apply to them. The two categories that showed some area for improvement was an overall knowledge of where the storm system is, and the use of native plants for landscaping. As to the first issue, as the City continues to mark catchbasins, residents are likely to become more aware of the location and distribution of the storm system. In regard to the use of native plants, Public Works staff will try to promote the use of beneficial plant species on the City website.

Accomplishments

Public Works personnel have put a significant amount of effort into adding stormwater assets to the GIS system which will be discussed in greater detail in Section 9 and Section 15. This database provides staff a better understanding of the system and allows the public to have a more comprehensive understanding of the program as a whole. The assumption is that the more internal knowledge we have about our infrastructure, the more efficient City personnel become at helping the public to understand the system and regulatory requirements. While the Stormwater Division had a number of successes during the last permit year, the emphasis on GIS activity is particularly noteworthy.

Challenges

The Public Works Department as a whole has struggled to embrace the regulatory and maintenance practices of stormwater over the past three years. The City is working to recognize stormwater as part of the utility system, but changing daily routine has been difficult. For PY4 the Environmental Program Coordinator has put together a draft timeline of tasks for field personnel. An emphasis on maintaining accuracy and meeting timelines needs to be fully incorporated into the organization. Stormwater maintenance staff has operated on a complaint driven basis over the permit term. A functional annual routine is helping to address this issue and the crew is demonstrating time efficiency techniques.



Permit Year 4 Projections

As the City moves into Permit Year 4 it appears that organizational change is moving forward. The use of maintenance scheduling, weekly stormwater meetings, and the addition of new personnel have recharged the group to some extent. While the workload is daunting for Permit Year 4, the Environmental Program Coordinator is confident that some of the major programs required under the permit will be completed.



Section 3 – *Public Education and Outreach on Stormwater Impacts*

3.1 Overview

Minimum Control Measure #1, as described in the NPDES MS4 Phase II rules, requires the City of Keizer to implement a public education program to distribute educational materials to the community. The rule includes the opportunity to implement other outreach activities in regard to the impact of stormwater on local waterbodies.

The three BMPs listed in the SWMP for Minimum Control Measure #1 are as follows:

PE-1 Preparation of a water bill insert. The intent of the BMP as stated in the SWMP description is to utilize an annual mailing such as the drinking water Consumer Confidence Report (CCR) that will reach all households. (Implementation for Permit Year 2)

PE-2 Requires the City to utilize local Channel 23 to provide stormwater quality related education. Furthermore, stormwater related information is to be added to the City's website on an annual basis. (Implementation for Permit Year 1)

PE-3 Requires participation in the Claggett Creek Watershed Council meetings. (Implementation for Permit Year 1)

Copies of outreach materials are included in Appendix A.

3.2 Tasks Completed

All of the BMPs listed for this minimum control measure have been completed and the program is developed to the extent that outreach will continue to be implemented for each year of the current permit period. The City of Keizer developed new educational material for the public throughout PY3.

For BMP PE-1, City staff again utilized the drinking water Consumer Confidence Report (CCR) to reach the residents of Keizer. The CCR was mailed in May 2010.

In preparation for a stormwater fee increase, the CCR provided information regarding how the fee is utilized in the way of services and maintenance. In addition to general stormwater information, the insert also contained information about the impact of yard debris in local

waterways. As has been stated in the past, the Public Works Department has not eliminated the possibility of using a utility bill insert for future mailings; however, at this point the CCR seems to be the most efficient way to reach all households, including multi-family facilities.

The Stormwater Division has not utilized the Channel 23 tool to full advantage, but staff hopes to improve efforts for PY4. In PY3, the Public Works Open House was taped and shown on Channel 23 which included good images of the stormwater booth and outreach material. City Council meetings are also shown on Channel 23. The Environmental Program Coordinator has been recorded presenting to Council on topics such as storm drain marking, low impact development, and other public involvement issues related to stormwater.

No significant progress has occurred on development of the stormwater website. The Public Works Specialist has been the sole employee responsible for adding content to the site. A lean Public Works staff has resulted in a lower priority being assigned for website updates.

BMP PE-3 calls for City participation in the Claggett Creek Watershed Council (CCWC). The watershed council continues to struggle with membership and participation. In PY3 the City of Keizer utilized the group for a restoration project at Ben Miller Park adjacent to Claggett Creek. Members of the Council were part of a larger group that installed weed mats and compost, and assisted with planting of approximately 200 native plants. The Environmental Program Coordinator continues to assist the group as time allows.

The Claggett Creek Watershed Council is one of several groups under the umbrella of the Mid-Willamette Watershed Alliance. The Alliance group obtained grant money for a stream assessment that will be conducted within portions of the region in early October. Approximately 6 miles of Claggett Creek will be included in the stream survey. The project is being conducted in order to identify high priority restoration sites within the study area.

Additional Educational Activities

Stormwater Division staff utilized the Public Works Open House for community outreach and educational activities. The evening event was well attended, although there was a slightly smaller crowd than the past two years given the weather was wet and cool. New material was developed for the display board. Handouts and brochures were available for the public. The VacCon was set-up with a display of catchbasin debris.



As was reported in the PY2 report, the Environmental Program Coordinator developed a new program that was unveiled for the annual Public Works Open House in May 2009. The KP3 or Keizer Pet Poop Patrol is a pledge based program using pets from City staff for program promotion. Photos were collected from the City Mayor, Council members, working K-9 dogs, and family pets. These photos were displayed on a large poster board with information about water quality issues associated with pet waste, and encouraging viewers to “take the pledge to always pick-up after your pet, even in your own backyard”. The incentive for those who pledged was a doggie bag container suitable for clipping to a leash. The open house is an excellent event to communicate directly with residents of the community.



This year KP3 was expanded to include two additional events including the Mayor's Pet Parade during the Iris Festival. KP3 was also promoted at Riverfair in August 2010. Riverfair is held at Keizer Rapids Park.



Riverfair

In addition to the information listed above, the Stormwater Division also developed educational material to go in all Public Works vehicles in order to provide immediate resources for resident's in the field. The packet contains:

- General stormwater brochure
- Keep Your Property Beautiful brochure
- Ben Miller Family Park restoration project brochure
- Flyers about common pollutants such as mercury, bacteria, and dissolved oxygen
- Erosion and sediment control BMPs
- General resource list
- Automotive repair and maintenance tips

The Environmental Program Coordinator also developed a brochure for a regional "drug take back effort". The brochure covers implications of pharmaceutical residue on aquatic species.

3.3 Effectiveness Summary

The Environmental Program Coordinator has attempted to provide educational information to the public whenever possible and outside the BMPs listed in the SWMP. While less effort was put into developing outreach material for PY3, creative material was developed which has been covered in this section.

As was discussed earlier in Section 3, the use of the CCR for a citywide mailing reaches more households than a utility mailing would, due to delivery to all addresses including multi-family. Stormwater staff received a number of positive comments on the addition of an insert devoted entirely to stormwater. In addition, utilizing a known utility to educate the public about stormwater helps the community to recognize stormwater as a utility as well.

As was reported in the PY2 Annual Report, the annual Public Works Open House is an excellent opportunity to reach a large portion of Keizer's residents. The event is held after business hours which results in a more diverse audience. Utilizing large photographs of the storm system is particularly effective based on comments from the attendees. Furthermore, the catchbasin sculpture seemed to be of particular interest to attendees. Attendance for this event ranges between 500 to 700 visitors.

The KP3 program has received very good feedback. Residents enjoy seeing familiar names associated with the pictures on the poster. Each picture has the name of the pet with the last name of the associated staff member. Participants from the first year actively seek out the Environmental Program Coordinator to provide the newest photos for display. In addition, Public Works staff has received a great deal of positive feedback about the incentive item given away. This program links well with the development of the off leash dog park at Keizer Rapids Park.



Finally, in PY2 the Environmental Program Coordinator wrote a number of articles that were published in the local newspaper, the *Keizer Times*. Workload has reduced the number of articles submitted this year; however, the City utilized the *Keizer Times* to help gather community support for the stormwater fee increase. Two major articles were published on the topic and staff feels that this proactive approach was helpful in securing the community support necessary for the increase.

3.4 SWMP Revisions / Future Tasks

BMP PE-1 No SWMP revisions are planned for this BMP. The City anticipates using the CCR, Public Works Open House, and display board to provide stormwater related information to the public in PY4.

BMP PE -2 Public Works staff has not utilized this BMP to the fullest extent. Staff hopes to put more emphasis on this tool in PY4. The Environmental Program Coordinator anticipates utilizing the temporary employee to develop a PowerPoint presentation that can be used on Channel 23. The presentation can be tailored to cover several topics. No SWMP revisions are planned for this BMP.

BMP PE-3 The Environmental Program Coordinator will continue to provide guidance to the Claggett Creek Watershed Council as time allows.



Section 4 – *Public Involvement/Participation*

4.1 Overview

Minimum Control Measure #2, Public Involvement and Participation, is intended to utilize interested citizens and community groups to help educate other residents about preventing stormwater pollution. There are three BMPs for this control measure in the City of Keizer SWMP which are as follows:

PI-1 Public participation in establishment of a funding source.

PI-2 Public participation in ordinance development. This BMP specifies establishment of an ordinance for the Illicit Discharge Detection and Elimination (IDDE) Program, an ordinance for the construction site runoff control program, and an ordinance for stormwater quality-related standards for new development. (Implementation for Permit Year 2 and Permit Year 3 respectively)

PI-3 Storm Drain Markers/Door Hangers. This BMP specifies involvement of community groups to implement storm drain marking on an annual basis. (Implementation for Permit Year 2 through Permit Year 5)

4.2 Tasks Completed

The funding source for the Stormwater Program was created in 2007 through coordination with a citizen's Stormwater Task Force and the Keizer City Council. Stormwater fees were established and billing began in 2008. While this task was completed in Permit Year 1, as was discussed in Section 2, the Public Works staff endorsed a stormwater fee increase during City budget preparation in May 2010. The original fee of \$5.40 billed every two months has been increased to \$7.65.

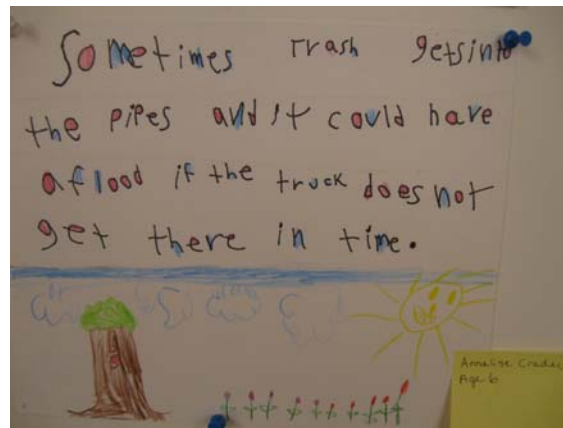
As reported in the PY1 Annual Report, a Stormwater Advisory Committee (SWAC) was formed in 2008 in accordance with BMP PI-2. The SWAC initially included two members of the development community, a member of the business community, a representative from the City of Salem, a representative from Marion County, two Keizer citizens, the City Mayor, two City Council representatives, a member of the Siletz Tribe, and a non-voting member of the Planning Commission. Representation has changed somewhat over the past two years although the



group continues to meet on a regular basis. The PY2 Annual Report stated that the group would go to quarterly meetings due to the work load associated with facilitation of the meetings. At that time the Environmental Program Coordinator was the individual responsible for meeting content, communication with the group, scheduling, and all the other components of maintaining the committee. The committee actually met 6 times during PY 3 due in large part to the push for a stormwater fee increase. The SWAC was very instrumental in assisting staff with securing the fee increase. At this time the group is holding lunch meetings which may prove to keep participation up.

BMP PI-3 was initiated in PY1 with the purchase of storm drain markers and the coordination of the first installation project which took place in August 2008. This particular project was covered in the PY1 Annual Report. A total of 87 markers were installed.

As was noted in last year's report, staff utilized students from the Boys and Girls Club to promote stormwater education through a poster contest. Staff had originally intended to use the group for storm drain marking, but realized that many of the participants would be too young to be productive in that endeavor.



The artist for this poster, age 6, correctly identified the purpose of the VacCon truck.

The poster contest was held at RiverFair, an annual event held at Keizer Rapids Park. Mayor Lore Christopher acted as judge and all participants were recognized with goodie bags. The posters were displayed in the Keizer Civic Center for 2 weeks after RiverFair.

The City of Keizer was unable to meet the measureable goal of installing 100 storm drain markers during PY 3; however, in an attempt to reach a larger audience with a small event, staff developed a project for the Mayor and Keizer City Councilors.

The Environmental Program Coordinator was approached by two new graduates from Linfield College in the summer of 2009 asking if they could install markers as a volunteer activity. At that time the Stormwater Division had mapped very few catchbasins and developing a project



for these two individuals would have been very time consuming. Staff directed the volunteers toward the process necessary to field verify catchbasins. The resulting information was then added to the GIS system. Their work played a significant role in developing important asset inventory for the Public Works Department.

In order to further provide the volunteers with a resume-worthy effort, the Environmental Program Coordinator suggested that they develop a storm drain marking project for the Mayor and members of the City Council. This effort included the development of an educational brochure for the event. The Environmental Program Coordinator formally asked the Council to devote a work session in May 2010 to the installation project. They installed 50 markers and received newspaper coverage from the *Statesman Journal* in Salem, Oregon and the *Keizer Times* in Keizer.



Mayor Lore Christopher, Councilor Clark, and Councilor Smith

4.3 Effectiveness Summary

For the most part two of the three BMPs, PI-1 and PI-3, for Minimum Control Measure #2 have been met or an ongoing process has been established. The Stormwater Division received significant support through the budget process this past year for a fee increase.



As was noted last year, the advisory committee organized under PI-2 has a strong core group. While the committee has just started lunch meetings, it appears that this will be a good format for keeping the group focused and attendance at a higher level.

BMP PI-3 is an effective tool for public involvement and participation. As has been the theme for much of the permit term, limited staffing levels have made program progress nearly impossible. The Environmental Program Coordinator has worked hard to ensure that projects are unique and reach a large audience within the community.

4.4 SWMP Revisions / Future Tasks

BMP PI-1 is complete. The Environmental Program Coordinator has put a significant amount of effort into assisting with the internal understanding that stormwater regulations will be ongoing and are the financial responsibility of the City of Keizer. During the Budget Committee process, which included securing the new stormwater fee, the Public Works Director informed the group that the Department would likely be looking for an additional increase in the next fiscal year.

BMP PI-2 The SWAC will continue regular meetings. The Environmental Program Coordinator anticipates the group will meet at least once a month and sometimes twice a month during Permit Year 4.

BMP PI-3 has been implemented and although the measureable goal has not always been met, the Stormwater Division continues to move forward with creative projects. With new stormwater personnel in place, the Environmental Program Coordinator hopes to secure a significant project for Permit Year 4



Section 5 – *Illicit Discharge Detection and Elimination*

5.1 Overview

There are four BMPs listed in the SWMP for Minimum Control Measure #3, Illicit Discharge Detection and Elimination (IDDE).

ID-1 Development of an ordinance to prohibit illicit discharges (Implementation for Permit Year 2) - **Complete**

ID-2 Specifies development of an IDDE Plan including outfalls inventory map (Implementation for Permit Year 1) **Complete**

ID-3 Training for City staff to implement the Plan (Implementation for Permit Year 2)

ID-4 Implementation of the IDDE Plan (Implementation for Permit Year 2)

5.2 Tasks Completed

Stormwater staff has made good progress for Minimum Control Measure #3. The Stormwater Discharge Ordinance under BMP ID-1 was developed by staff and the Stormwater Advisory Committee (SWAC). The document prohibits illegal dumping and connections to the stormwater system and waterways in the City of Keizer. Furthermore, the ordinance provides some protection for waterways by prohibiting the removal of vegetation without City review and submittal of an approved replanting plan. The ordinance was adopted by the Keizer City Council in March 2009 and became effective on April 15, 2009.

Stormwater maintenance personnel completed a citywide outfall inspection in PY3. The program was expanded this year to include photos of all outfalls. That information has been linked to ArcMap. In addition, staff also recorded field reference data in order to more accurately locate each outfall. New outfalls were identified this year, which was due in large part to an active pipe layer in ArcMap. That information helped staff identify outfalls that had gone unnoticed in past years. After a two year learning curve for this inspection process, field staff has significantly improved their process and are collecting more comprehensive data.



Under BMP ID-2, additional training has occurred for field staff as well as City Hall personnel. Four formal trainings were held in PY3 for all field personnel. In addition, the four stormwater staff members attended the Clackamas Water Environment School in March 2010. While the Public Works Department is still behind on overall training for stormwater related issues, progress has occurred on this task.

The IDDE program is fully developed and being implemented according to BMP ID-4.

5.3 Effectiveness Summary

The Environmental Program Coordinator is pleased with the Discharge Ordinance created under the specifications of BMP ID-1. The ordinance provides penalties for deliberate offenders, and also allows some creative remediation action for those violators whose behavior may not be swayed by a monetary penalty. Furthermore, the ordinance allows some protection for local waterways. Residents are not allowed to remove streamside vegetation that will leave the bank subject to erosion. The ordinance language allows removal of invasive vegetation with an approved replanting plan. Such a plan will be reviewed by the Public Works staff, specifically, the Environmental Program Coordinator.

Two years after development of the Stormwater Discharge ordinance, City staff is actively noting problems in the community which have resulted in the ability to seek correction from property owners or maintenance companies such as plumbers. Property owners that have



violations worth note are being monitored throughout the year to make certain repeat offenses are detected. There continues to be some reluctance from some Public Works personnel for enforcement activities, but internal response has improved. Staff anticipates this issue will be resolved as staff becomes more familiar with the program.



Under BMP ID-3, training for City staff has increased over the past year, but there continues to be room for improvement. Shortcomings for required training were likely the result of limited staffing resources. The Environmental Program Coordinator hopes to see this BMP expanded during PY4.

The IDDE Plan is a dynamic document. While the Plan has not been formally revised, the Environmental Program Coordinator hopes that a detailed rewrite will be possible during the permit term to correct any deficiencies. Although staff has experienced some growing pains with implementation of the document, it becomes much more useful as time goes on.

5.4 SWMP Revisions / Future Tasks

No revisions are necessary for this section of the SWMP.

BMP ID-1 The Stormwater Discharge Ordinance has been adopted.

BMP ID-2 The IDDE Plan has been developed and has been reviewed internally. Stormwater maintenance personnel completed a citywide outfall inspection during PY3. The process has been improved and findings linked to the City's GIS system.

BMP ID-3 Training activities improved over PY 3. The Environmental Program Coordinator has developed a stormwater maintenance schedule that will provide 4 to 6 regular training sessions each year for maintenance staff.



BMP ID-4 The IDDE Plan is being implemented. Problems identified in the field are being added to the schedule for additional inspections throughout the year.



Section 6 – *Construction Site Stormwater Runoff Control*

6.1 Overview

Minimum Control Measure #4, Construction Site Runoff Control, contains four BMPs designed to reduce pollutants in any stormwater runoff to the permittee's small MS4 from construction activities.

CS-1 Development of a construction site runoff control ordinance. Select a guidance manual. (Implementation for Permit Year 2)

CS-2 Train City employees regarding construction site controls (Implementation for Permit Year 2)

CS-3 Conduct plan reviews, inspections, enforcement (Implementation for Permit Year 3)

CS-4 Establish hotline to receive complaints from the public (Implementation for Permit Year 1)

6.2 Tasks Completed

As has been noted in previous sections of this report, the focus for the stormwater program during PY3 has been the activities surrounding acquiring additional resources for the Stormwater Division. The Environmental Program Coordinator stated in the PY2 Annual Report that significant efforts would be devoted to completing the Construction Site Runoff Program during PY3. While the program is nearing completion, the ordinance, and associated documents have not been adopted at this point.

BMP CS-1, development of a construction site runoff control ordinance has seen some success. The Environmental Program Coordinator has a draft ordinance that has been introduced to the SWAC. Staff anticipates that the ordinance will be completed when the guiding documents have been finalized and endorsed by the advisory committee.

The proposed program includes 2 plans for land disturbing activities. The small erosion control plan is directed toward home improvement activities that disturb 500 sq ft or more. Examples would include driveway replacement, home additions, lawn replacement, or similar activities.



The small erosion control plan is intended to be primarily educational in nature. It will introduce residents to the importance of properly planning projects on a small scale. The small plan will allow City staff to use the ordinance as a means to penalize applicants who intentionally disregard BMPs. No fee is being associated with the plan at this point.

The second plan which will be appropriate for single family development, commercial, phased subdivision, or other large scale development, is called the Construction Site Pollution Prevention Plan (CSPPP). The document was derived from the Stormwater Pollution Prevention Plan (SWPPP) and has been tailored to meet the needs of the development community in the City of Keizer. The CSPPP is being developed to be the primary comprehensive document that will be suitable for most new development in the community. When the SWAC has approved the CSPPP, the Environmental Program Coordinator will bring the new ordinance forward to the elected officials for formal review and recommended adoption.



In preparation for full program development, the Environmental Program Coordinator gave a presentation to the Planning Commission regarding the specifics of the program. This activity was requested by the SWAC. In addition to preparing the City for this new program, the Stormwater Division has also coordinated with DEQ on the revised 1200-C permit. While the City of Keizer was not able to ask for coverage under the new permit, the overall program is being designed to meet the conditions of full coverage of the 1200-C permit when that opportunity becomes available.

BMP CS-2 calls for training of City personnel for construction site controls. Some training has occurred on this issue although the topic will be more pertinent with an ordinance in place. The Stormwater Division developed a 'door hanger' as an educational aid for landscaping activities throughout the spring and summer of 2010. Field personnel used these hangers as a way to educate the public about the impacts of leaving landscaping materials in the street or in the driveway. In addition, the Public Works Department has just purchased an educational DVD



directed toward construction site controls. The DVD will be shown to all Public Works personnel and used for annual refresher training.

BMP CS-3 is not applicable until a program has been adopted. The Environmental Program Coordinator has developed an inspection schedule handout for developers, and an educational brochure that gives an overview of the program as a whole. Please see Appendix B for draft materials developed for this program

BMP CS-4 has been updated from PY2. The after-hours phone system has been refined to direct callers toward the appropriate Division. A recorded message prompts callers to push 1 for Water emergencies, and to push 2 for Storm or Streets emergencies. This phone system is in effect 24 hours a day, 7 days a week. The Environmental Program Coordinator will recommend the establishment of a separate hotline with completion of the Construction Site Runoff Ordinance or as the program becomes more fully developed if warranted.

6.3 Effectiveness Summary

Given the program as a whole is incomplete, assessing effectiveness is inappropriate. With that in mind, the Environmental Program Coordinator is confident that the program being developed will be suitable for the City of Keizer and will provide the protection needed under the intent of minimum control measure #4.

Field staff training continues to be a struggle in many stormwater areas, but overall, field personnel are making progress in their daily routines. Erosion control issues are easily recognized; however, knowledge of site control techniques are limited.

The alteration of the after-hours phone system as listed under CS-4 seems to be an improvement over past practices.

6.4 SWMP Revisions / Future Tasks

BMP CS-1 Completion of this BMP is expected prior to the end of Permit Year 4

BMP CS-2 In addition to the purchase of the DVD discussed in subsection 6.2, the Environmental Program Technician is also working on an erosion control manuals that will be useful for field personnel as well as developers.

BMP CS-3 Completion of this BMP is not expected until Permit Year 4.

BMP CS-4 As was indicated in Subsection 6.2, the after-hours phone system has been refined to include an option for stormwater issues.



Section 7 – *Post-Construction Stormwater Management in New Development and Redevelopment*

7.1 Overview

There are three BMPs associated with Minimum Control Measure #7 in Keizer's SWMP related to post-construction stormwater management.

DS-1 Development of an ordinance to prevent or minimize pollutants from new and re-development projects (Implementation for Permit Year 3)

DS-2 Train City staff for the newly developed standards (Implementation for Permit Year 3)

DS-3 Implementation of the new regulations developed under DS-1 (Implementation for Permit Year 4)

7.2 Tasks Completed

Very little progress has occurred on this minimum control measure as outlined in the SWMP. With that in mind, the City of Keizer has embraced the practices associated with low impact development (LID). The existing Public Works Design Standards specifically reference a preference for LID, and the Public Works Department is currently requiring LID for all new commercial development. Reference material for developers includes the City of Portland Bureau of Environmental Services, and King County.

As was noted in the Executive Summary, LID is being used for large scale commercial development at Keizer Station. Furthermore, the City fully endorsed a new subdivision constructed in PY3 that used pervious concrete for the street. Approximately 7000 sq feet of this material was poured for the New Day subdivision which includes 6 taxlots.

While the City has not made significant progress on this minimum control measure according to the specifications of the SWMP, Keizer has demonstrated defensible progress on the intent of post construction runoff management.



7.3 Effectiveness Summary

There are no findings to be reported at this time.

7.4 SWMP Revisions / Future Tasks

BMP DS-1 There are no revisions planned for this BMP.

BMP DS-2 There are no revisions planned for this BMP.

BMP DS-3 There are no revisions planned for this BMP.



Section 8 – *Pollution Prevention in Municipal Operations*

8.1 Overview

There are four BMPs listed in the City of Keizer SWMP for Minimum Control Measure #6 which addresses pollution prevention in municipal operations.

OM-1 Development of a water quality sensitive O & M program (Implementation for Permit Year 2)

OM-2 Train City employees regarding revised O & M practices (Implementation for Permit Year 2)

OM-3 Conduct catchbasin cleaning

OM-4 Conduct street sweeping

8.2 Tasks Completed

The Environmental Program Coordinator has little to report in the way of progress for BMP OM-1. Overall, a formal program was not developed during PY3; however there has been some progress for the intent of this minimum control measure.

The training DVD 'Municipal Stormwater Pollution Prevention' training kit was purchased from Excal Visual and has been shown to Public Works maintenance personnel. The Environmental Program Coordinator edited a quiz for maintenance staff to take to record overall understanding once the DVD was viewed. The quiz and DVD viewing was a successful training event.

BMP OM-3, catchbasin cleaning, commenced in July 2008. Stormwater field staff are cleaning far more than 25% of catchbasins annually. The crew has completed over one full circuit of the entire City in less than 3 years and some areas are cleaned more than once per year. A total of approximately 250 yards of solids had been dumped since the purchase of the VacCon through the end of PY3. The Stormwater Field Supervisor is making good progress on implementation of this portion of the program.



As was reported in the PY1 and PY2, street sweeping is an ongoing activity for the City of Keizer under BMP OM-4. Utilization of Wheat LLC is of great benefit to the City in that this is a local business that is aware of special situations that occur within our neighborhoods. Public Works staff is able to communicate on short notice with the company in the event of an emergency or special need.

The following data is the total debris removal from the street sweeping program by quarter for PY2:

July – Sept 2009	288
Oct – Dec 2009	618
Jan – Mar 2010	179
April – May 2010	180

8.3 Effectiveness Summary

As was stated in Section 8.1, the Environmental Program Coordinator has not been successful in developing the Operation and Maintenance program to date. Staff is anticipating completion of this BMP in the spring of 2011. The temporary technical employee will be assigned this task and the City is actively seeking an applicant with the appropriate experience.

BMP OM-2 is moving forward. Training for staff still falls short of adequate, but some progress has been made and overall, Public Works personnel are more aware of how their daily activities



could impact water quality. For example, staff recently tarped storage bays at the Parks shop facility to prevent landscape material from leaving the site.



BMP OM-3 and OM-4 are being implemented effectively. In looking at these activities for the permit term, some progress has occurred each year.

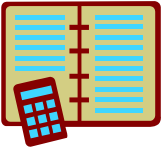
8.4 SWMP Revisions / Future Tasks

BMP OM-1 This BMP is expected to be completed in PY 4.

BMP OM-2 Some progress has occurred on this BMP and substantial progress is anticipated for PY4

BMP OM-3 No SWMP revisions are planned for this BMP.

BMP OM-4 No SWMP revisions are planned for this BMP. City staff will continue to collect quarterly removal totals.



Section 9 – *Record Keeping and Reporting Overview*

9.1 Overview

The City of Keizer has included BMP RR-1 and RR-2 in the SWMP to address the record keeping and reporting requirements of the NPDES MS4 Phase II program and to ensure that information collected during the implementation of the SWMP is accessible to City staff. BMP RR-1 states that the City will track compliance and prepare annual reports. BMP RR-2 states that the City will link SWMP information with GIS.

The shortfalls in record keeping reported in PY2 have improved and the Stormwater Division anticipates a sharp proficiency increase for PY4

As was reported in for PY2, the addition of temporary technical staff allowed the City to add UIC stormwater assets to GIS. The Public Works Department secured funding to retain a full time temporary employee for fiscal year 2010/2011 in addition to the two new employees hired in September 2010. As a result, the Stormwater Division staff has added a great deal of information to the City's GIS system.

9.2 Tasks Completed

Record keeping successes for PY3 are largely due to an improvement in comprehension of the overall program. The field staff responsible for a portion of this work have stepped up efforts to collect necessary data in an effective manner.

The Environmental Program Coordinator was not able to significantly improve record keeping efforts to properly manage regulatory information; however, retention of the temporary position through PY3 resulted in some progress. As was indicated in subsection 9.1, staff anticipates that record keeping across the board will significantly improve in PY4 due to the addition of two new staff full time staff members and one temporary employee.

The information added to the GIS system for stormwater assets has been noteworthy for PY3. The temporary employee retained through fiscal year 2009/2010 was able to add all MS4 data from as-built documents, and field verify that information which was not included on plans. This information has provided a solid foundation for how the program will evolve in the future. The



inventory includes pipe (type and size in most cases), catchbasins, manholes, some detention features, some vegetated or pervious features, as well as UIC data.

9.3 Future Tasks

As was noted in subsection 9.2, the Environmental Program Coordinator expects that record keeping activities will be perfected in PY4. The Senior Environmental Program Technician, hired in August 2010, has developed a new process for record keeping with assistance from the Stormwater Field Supervisor. The new process will ensure that staff collects the correct data and that the Stormwater Division will have the ability to access the information for enforcement activities, increased inspection, and regulatory uses.

The Environmental Program Coordinator will work with new technical staff to fine tune record keeping activities and to expand the use of GIS. During Permit Year 4 staff anticipates that all public stormwater assets will be field verified and added to ArcMap.



Section 10 – Annexed Area / Expansion of MS4

10.1 Summary

The City of Keizer encompasses an area of approximately 7 square miles. Development has expanded to the UGB throughout most of the incorporated area with little undeveloped property remaining within the City.

There were no annexations to the City of Keizer in Permit Year 3. The Community Development Department is preparing an annexation for Permit Year 4 that will be approximately 37.8 acres in size. That annexation is primarily tied to Keizer Rapids Park. The Public Works Department does not anticipate extension of the MS4 for this activity.

As a projection for the future, the Community Development Department anticipates that a major annexation may occur in Permit Year 5. The City is exploring annexation of up to 1000 acres to the north of the existing UGB

The City has not expanded the MS4 system in the past year.



Section 11 – *Enforcement Actions*

11.1 Summary

The Stormwater Discharge Ordinance was adopted by the Keizer City Council in March 2009. This ordinance has provided the City the legal ability to impose penalties for illegal dumping to the stormwater system. The ordinance has provided the catalyst for water quality responses that continue to increase over time. Several noteworthy situations were identified in PY 3 for which the Stormwater Division was able to actively respond.

11.2 New Procedures (plans, coordination)

The Public Works Department continues to make progress on enforcement issues. The City does not yet have a Construction Site Runoff ordinance; however staff proactively worked toward abating activities that are a threat to water quality. Public education and the existing discharge ordinance are used as a means of correction.

11.3 Number of Responses and Complaints

For Permit Year 3, there were a total of 36 recorded water quality or stormwater related calls to which the Stormwater Division responded. This is a significant improvement over PY2 activities.

With the new after-hours phone system in place, a more efficient response is expected as the program evolves. With completion of the construction site runoff program, staff anticipates that enforcement activities will again increase.

The following table captures the water quality complaints staff responded to in PY3.





Table 11.3 Water Quality / Stormwater Complaints

Date	Complainant	Violation Location	Description	Action Taken	Follow-up
8/4/2009	Anonymous	6700 Field of Dreams Wy.	Complaints about bad smells coming from Labish Creek. Staff inspected upstream outfall. Found cooking oil was being dumped down a catchbasin. from a vendor at Volcano Stadium.	Called for assistance from City of Salem to clean the catchbasin and the mainline to the outfall.	Property owner was sent a letter about the violation, with a bill for the cost of the time and services to clean up. Keizer decided to abandon and cover up the catchbasin to prevent further incidents.
8/5/2009	City Staff	6744 Rock Crystal	In-ground pool may be discharging directly to Labish.	Environmental Program Coordinator drafted letter and sent to property owner	8-31-09 Made follow up call today and homeowner had not made any corrections. 9/22/09 Called today and spoke with owner, he said he had a plumber lined up to do it. 10/16/09 - Staff confirmed work had been done, now connected to sanitary.
8/12/2009	Mary Holly	Labish Creek	Witnessed illegal dumping in the waterway	Informed Public Works staff to keep an eye out for suspicious vehicles dumping into creek.	None required
7/22/2009	Anonymous	Labish Creek	Discovered that area along Labish Creek was mown; vegetation all in creek	Marion County authorized the work	Called the County, they will clean up the vegetation.



8/20/2009	Billy Scaffidi	3602 / 3604 Cherry Ave	Concerned citizen noted debris in planter strip and paint smell and residue from the site	8-21-09 Met with owner onsite. Reported sewer was clogged and employee must have washed out his paint in the catchbasin. Staff explained to the owner why this was prohibited and that he needed to clean CB. Said staff would stop by frequently and that a fine will be applied if it happens again	Checked back 8/24,2009 Problem resolved
8/20/2009	Billy Scaffidi	3602 / 3604 Cherry Ave	Concerned citizen noted debris in planter strip and paint smell and residue from the site	Owner informed field staff that the Stoneworks business uses water when cutting granite and the material in the swale is the runoff from that.	Owner said at time of development it was O.K.'d by the City that the granite runoff was going to be allowed to drain to the drainage swale. Told him that it should be cleaned up more regularly and a mulch applied every so often.
9/9/2009	Keizer Police Dispatch	Lockhaven east of KSB	25 gallon container of Muratic Acid found on side of road.	Staff responded and found empty container, removed for disposal.	None required



9/15/2009	City of Keizer	5393 Verda Ln. N.E.	Messy job site, dirt in street, dump truck full of dirt/dead battery, rain on the way.	Staff directed contractor to clean up site, and lay rock down in work area before rain comes.	Came by next day to find site acceptable.
9/15/2009	City of Keizer	5613 Verda Ln. N.E.	Messy job site, dirt and rock in street.	Spoke with owner and explained proper clean up.	Came by next day to find site acceptable.
9/18/2009	City of Keizer	1419 Northern Heights Lp.	Citizen working on car in street.	Staff responded and let homeowner know he need to get pads down on anything spilled and that he should be working on vehicles in the garage.	Owner got kitty litter to soak up spillage, and cleaned up.
9/21/2009	City of Keizer	959 Greenwood Dr.	Owner notified City he was going to backwash his pool to the street	I made him aware of new ordinance and also spoke to the property manager and informed him that pool water should be discharged to sanitary sewer.	Took the phone number down and made contact with owner explaining how it was not okay to drain pool contents to the street. Met with owner and found discharge hose connected to the sanitary.



10/8/2009	City of Keizer	661 Dearborn Ave. N.E.	Contents from a fire extinguisher demo contaminated the catch basin.	Fire department scooped material out of c.b. and used GreaseSweep to clean up remaining material around c.b.	Fire Dept. was very responsive, and is working towards having an SOP for stormwater related issues.
10/13/2009	Unknown	Pierce Ct. N	Caller stated there was a yellow powdery substance covering the sidewalk and street.	Went to site to investigate, found it was pollen.	None required
11/2/2009	Veronica		Citizen was reported to be blowing leaves into the street.	A letter from the City of Keizer was sent to the neighborhood reminding all to be mindful of blocking catch basins and blowing yard debris to the street.	None required
11/13/2009	City of Keizer	2015 Commercial St. N.E.	Mud was tracked onto Harmony, 14th, and Lockhaven from construction trucks pulling out of new construction site off Harmony Dr..	Staff spoke with contractor and said that this was unacceptable and that it needed to get cleaned up.	The company cleaned up the area.



1/20/2010	City of Keizer	Alexis Ct.	Empty containers of paint with lids off, thrown around fire hydrant behind curb in dirt	Staff went to the site, set cans upright and secured lids. Called the project manager who will be picking them up.	Checked back on Monday and found site picked up.
2/4/2010	City of Keizer	1561 Stonhedge Dr.	Car being repaired in street, oil present.	Spoke with owner and explained proper clean up, informed on where our drains go, and asked to not work on vehicles in the street.	None required
1/27/2010	City of Keizer	Ulalli Dr. in Keizer Station	Large amount of barkdust scattered along the road.	Responded to site and then called Loren's Sanitation to sweep the site	None required
2/10/2010	City of Keizer	5625 Mcleod	Making a mess in the street while adding onto to driveway-catch basin at edge of drive.	Spoke with homeowner (bio bags or c/b insert a must and figure out a way to keep the road clean).	Checked back next day and found c/b inserts in catch basin and street adequate.
2/10/2010	City of Keizer	6471 Stickles Ct.	Washing paint brushes into catch basin	Spoke with owner and informed that this was prohibited	None required



2/16/2010	City of Keizer	4210 River Rd.	Pressure washing oily parking lot down catch basin.	Informed employee of stormwater ordinance. He complied.	None required
3/9/2010	City of Keizer	4789 12th Ave.N	Cleaned 4x4 truck in street after taking it mudding.	Put in bags along curb and around catch basin. Spoke with owner and gave a warning saying next time we will apply a fine.	None required
5/5/2010	City of Keizer	1325 Prairie Clover NE	Landscaping/lawn removed. Dirt in street and on sidewalk	Provided homeowner with educational material. Positive response	Sod installed the following week. Homeowner still used equipment over sidewalk and curb. Lots of mud in the street. We asked him to clean it up and he did.
5/1/2010	City of Keizer	PO Box 20091	City employee reported pool being drained via hose to the street	Spoke with Joe. Water was rain accumulation in empty pool. Pool is connected to the sanitary sewer	None required
4/21/2010	City of Keizer	4060 Filbert St.	Remodling house, large piles of dirt in front yard not tarped, catch basin very near.	Lyle and Al spoke with owner, asked to tarp the dirt.	The very next day dirt was tarped, straw was covering bare spots and bio bags were around the catch basin.



5/20/2010	City of Keizer	2385 Manzanita St. N.E.	Dirt piled up in planter strip from approach dig out	Called contractor and asked to have dirt tarped. He complied.	None required
5/21/2010	City of Keizer	7188 Lawnridge	Two large piles of mulch along curblin	Left pamphlet on door, left phone message.	5-27-10 Material has been removed
5/24/2010	City of Keizer	6729 Jacobe	Tracking mud out to street during home construction	Talked with homeowner and gave some suggestions. He complied.	None required
5/24/2010	City of Keizer	6414Honeywood Ct.	Pile of sand in the street along curblin	Left pamphlet on door, left phone message.	5-27-10 Material has been removed
5/26/2010	City of Keizer	River Rd	Failure of BMPs on construction site. Dirt in the street	Talked to Jason Sharp and sub. Contacted DEQ due to 1200 C permit. Limited compliance by early 5/27.	Revisited - additional requirements and specific actions required. Follow up with sub. Specific alternatives provided. Issues to be resolved by end of day 5/27. They complied.
6/2/2010	City of Keizer	1518 Kelli	Pile of dirt in driveway partially tarped in middle but needing to cover better.	Left one of our new door hangers.	Pile tarped better 6/4/10
6/2/2010	City of Keizer	4737 13th Ave. N.E.	Pile of barkdust in driveway not tarped.	Left one of our new door hangers.	Pile tarped better 6/4/10



6/7/2010	City of Keizer	1174 Maddy	Piles of dirt close to curb	Spoke with foreman and he moved the piles back.	None
6/10/2010	City of Keizer		Rototilled front of yard along sidewalk, cleaned sidewalk off by hosing to street thus muddy water draining to catch basin nearby at corner of nearby cul-de-sac.	Talked with homeowner and gave some suggestions, owner was upset and wanted a written copy of ordinance.	Provided him information on the ordinance.
6/14/2010	City of Keizer	1545 Parkside Ct.	Uncovered barkdust in driveway	Left door hanger.	Material was removed.
6/29/2010	City of Keizer	1998 Brandon	Uncovered barkdust at back of sidewalk	Left door hanger.	Material was removed.



Section 12 – *Internal Review Process and Findings*

12.1 Summary

According to the provisions of the City's NPDES Permit #102904, *the permittee must conduct an annual review of its SWMP in conjunction with preparation of the annual report required under condition B(2).* The Environmental Program Coordinator facilitated a meeting with City staff and the Stormwater Advisory Committee in January 2010. Additional meetings were held during the spring that were devoted to the content of the SWMP. While the primary purpose of these meetings was to help the group fully embrace the need for additional staffing resources, the meetings did allow the committee to dissect the contents of the SWMP.

As was stated in previous reports, the general consensus is that the SWMP is a solid document. The shortcomings for the program fall within the realm of the funding established for the program and the timing established for major programs. The first issue appears to have been resolved for the time being; however, it will be necessary for the City and associated committees to be aware that the program is not static and requires proper management of resources.

No adaptive management is being proposed for the SWMP. In PY2 the Environmental Program Coordinator requested that SWAC meetings be scaled to quarterly meetings with additional electronic activity to take the place of additional meetings. Given the new meeting schedule implemented in October 2010, it appears that the group will indeed meet a minimum of 8 times per year.



Section 13 – Storm Sewer System and Waterways

13.1 Summary

A revised waterways map follows this Section. No new information has been added to this map in regard to waterways, but outfall information has changed as was reported in Section 5. The first citywide outfall inspection occurred in Permit Year 1. At that time the City had identified about 80 outfalls. The outfall inspection, which has been fine-tuned over the last 2 years shows that the City actually has 100 outfalls.

The mapping effort for outfalls also includes more specific location information. Field staff included photographs and landmarks in this year's inspection process to make certain that the GIS system contained the most accurate location data.

The outfalls map will be used to help identify drainage areas within the City as Keizer works toward a spill prevention plan in the future.



Section 14 – *Progress Towards Schedule B2(a)*

14.1 Overview

Schedule B2(a) of the NPDES Permit states that the permittee must submit an annual report to the Department that will include *“the status of compliance with permit conditions, an assessment of the appropriateness of the identified BMPs, progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP, and the measurable goals for each of the minimum control measures”*. The sections of this report that pertain directly to established BMPs provide status of compliance and assessment of appropriateness. This section of the report addresses the City of Keizer’s goal of reducing discharges to the MEP.

Keizer has continued to struggle with the timelines established in the SWMP throughout PY3. The large program goal failures reported in PY2 have not yet been completed; Construction Site Pollution Runoff; Post Construction Runoff, and Operation and Maintenance/Good Housekeeping. While those failures are noteworthy, the Environmental Program Coordinator feels that the City as a whole has made significant strides toward embracing the new stormwater program and those efforts will result in a very productive Permit Year 4.

As has been noted in the previous sections of this report, and in Section 15 which follows, securing a stormwater fee increase was crucial in moving the program forward. This increase equates to 3 additional positions (one is temporary for Permit Year 4) which will play a momentous role in helping to complete components of the SWMP.

In addition to the fee increase, the Environmental Program Coordinator is pleased to report that overall the organization has started to make the internal changes necessary for compliance. Maintenance personnel are doing a better job of prioritizing stormwater tasks and responding to water quality issues. The team has made enormous strides in recording data in GIS (See Section 15). The stormwater data in ArcMap is by far the most comprehensive of all City data.

The organization has also made substantial progress in regard to low impact development. The Public Works Department has worked closely with the City Engineer to make certain that new commercial development is embracing techniques that reduce velocity and provide treatment for stormwater. Two very large portions of the commercial center at Keizer Station will be using BMPs such as retention basins, treatment swales, and pervious surfaces to treat and infiltrate stormwater. As was discussed in the Section 7, the City also allowed and endorsed a 6 lot subdivision that used pervious concrete for the street surface. These types of projects go a long



way toward setting the bar for sound stormwater-minded development throughout the community.

Finally, the Environmental Program Coordinator, Stormwater Field Supervisor, and technical staff are becoming adept at looking for creative options to advance the program. One such example for this report year was utilizing the Northwest Youth Corps for environmental work in and around Keizer. The group worked at local restoration sites, removed invasive vegetation from local parks, completed trail building at Keizer Rapids Park, and performed stream cleaning on Labish Ditch adjacent to Country Glen Park. The group removed approximately 20 cubic yards of trash, debris, and invasive weeds along that section of the stream.



Northwest Youth Corps

As was stated in last year's report, the City of Keizer has learned a great deal through this first permit period and although there have been significant successes, there is room for improvement. The Environmental Program Coordinator is confident that Permit Year 4 will be a milestone year for the current permit.

14.2 Future Tasks

The Stormwater Division personnel will be working at a fast pace in PY4 to bring the City up-to-speed with BMPs that are overdue, and to make progress on other stormwater regulations such as those which are required in the TMDL Implementation Plan, and UIC program.

In regard to the NPDES Permit, staff hopes to complete the Construction Site Runoff program in January 2011. The Operations and Maintenance program is scheduled for completion prior to the end of Permit Year 4. As was covered in Section 7, the intent of the Post Construction program is currently being met. The formal program has yet to be developed.



The Environmental Program Coordinator is also looking ahead to development of the revised SWMP required for the next permit. Benchmark development is being explored by tech staff, and maintenance personnel are verifying field assets and helping to design some of the BMPs that will be part of the revised SWMP.



Section 15 – *Other Activities*

15.1 Summary

The purpose of this Section of the PY3 Annual Report is to document those actions or activities that are not applicable to the content of other portions of this report.

15.2 Specific Activities

Stormwater Fee Increase

The Environmental Program Coordinator initiated conversation with the Public Works Director late in 2009 with the intent of helping the City to fully understand the state of stormwater programs. As has been discussed in previous reports, the City of Keizer established conservative funding for one program in 2007, but the addition of the TMDL Implementation Plan and the UIC program completely over-extended stormwater personnel. The City was faced with program failure across the board without securing additional resources.

In January 2010 the Stormwater Advisory Committee (SWAC) reconvened. The meeting content was primarily an overview of program requirements, and current status. The SWAC was responsive to the Division shortfall, and requested additional information for a March meeting including comparable stormwater rates from other communities, an evaluation of existing stormwater ESUs, and other such appropriate information. At the March meeting the SWAC unanimously endorsed a full scale internal and external educational effort regarding stormwater regulations, the history of the stormwater program in Keizer, and the potential ramifications for non-compliance. This material was developed and circulated in order to prepare the community for a stormwater fee increase. The White Paper used for outreach purposes is attached in Appendix C.

The efforts of City staff and the advisory committee were successful. The City's Budget Committee unanimously passed the proposed stormwater fee increase in June 2010. The first billing cycle began in August 2010.



Ben Miller Family Park Restoration Project

The Stormwater Division applied for, and was awarded a grant for a restoration project through the Riparian Conservation Action Program (RCAP) with the Marion Soil and Water Conservation District early in PY3. The project site is located at Ben Miller Family Park adjacent to Claggett Creek. The project is 5000 sq feet in size.

An inmate crew removed approximately 20 cubic yards of invasive vegetation to prepare the site. Approximately 600 native plants were installed on the site which were stabilized with weed mats and a thick layer of compost.

The Ben Miller project included participation from a various volunteers including members of the Keizer Rotary and the Claggett Creek Watershed Council. The project and final planting were completed in March 2010.



GIS Progress

Although mentioned a number of times in this report, a more detailed accounting of the data added to ArcMap during PY3 is warranted. In less than 2 years the Stormwater Division has gone from having little to no stormwater assets in the GIS database, to having a full suite of information that will help move the program forward in a defensible fashion. The temporary stormwater technician for 2009/ 2010 was responsible for the majority of this work.

The ArcMap database for stormwater now contains: 1) catchbasins, including type and marker information, 2) storm pipe, including type, size, and direction of flow, 3) outfalls, 4) junction boxes, 5) solid manholes, 6) perforated manholes, 7) UIC drainage areas, 8) water wells



(domestic and public), 9) abandoned pipe (partial), 10) ditches, swales, and detention basins (partial), 11) control structures (partial), and 12) storm sceptors (partial).

This data is essential for current activities and will be even more important as the City enters into a new permit for UIC management, and a new NPDES permit.

Stormwater Outreach Material

As was covered in Section 14, the Stormwater Division has made every effort to try and retain and maintain creativity over the permit term. This past year the temporary technician was instrumental in developing a folder of outreach material for each service vehicle as was covered in Section 3. This material was developed in order to allow all Public Works personnel to supply educational material for numerous stormwater issues throughout the community. The folder contains general stormwater information, a resource list, UIC information, TMDL information, erosion control information, and more.

While staff has not tracked how effective this tool has been, it does allow all Public Works personnel to be prepared while interacting with the public.

Restoration Overview

The City reported in the PY2 Annual Report that a 'mitigation' restoration project would be developed to offset the impacts to the Westridge Slope Failure repairs. No progress has occurred on this project as yet, but a restoration project is on the schedule for 2011. Given the success of the Ben Miller Family Park site, staff is confident that a suitable site can be located and a restoration project developed that addresses any impacts that originally occurred as a result of the activity which occurred in PY2.



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.</i> <i>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	<i>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</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	2012	Initial boat ramp design review in 2008	<i>No updates to report on this BMP. The Environmental Program Coordinator has been involved in review of plans and permits.</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>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. Develop ordinance to control construction site runoff	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. Internal training for field staff	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. Plan review, inspections, and enforcement	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. Establish hotline to receive complaints from the public	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. Develop ordinance to control runoff from new development	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. Internal training for new development standards	Staff time	Completion of training	2010		<i>No updates</i>
DS-3			vii. Plan review, inspections, enforcement	Staff time. Additional positions funded	Track staff progress	2010		<i>No updates</i>
OM-1			viii. Develop a water quality sensitive O & M program	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. Internal training for new O & M practices	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. Catchbasin cleaning	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>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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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: Temperature

(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. 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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