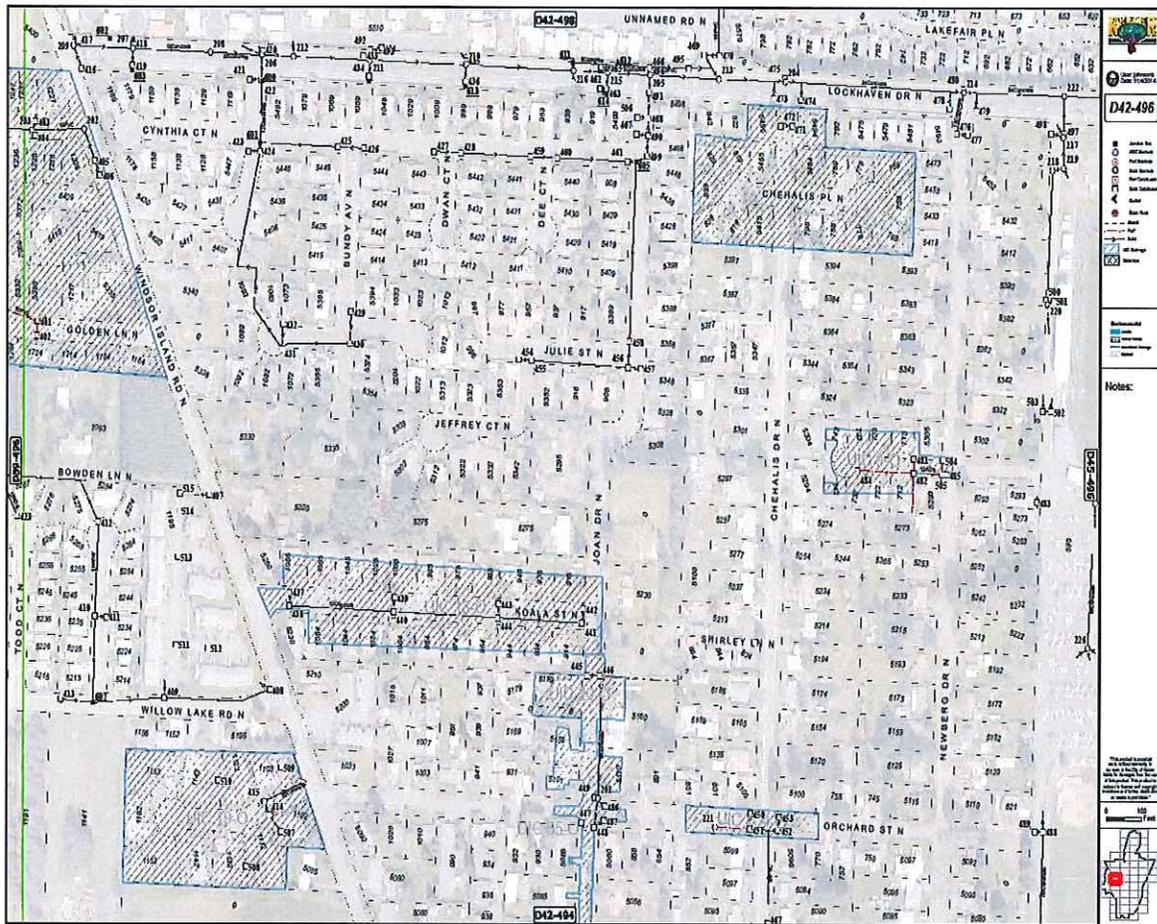


City of Keizer, Oregon
ANNUAL REPORT
PERMIT YEAR 2014/2015
CLASS V WPCF PERMIT #103068



December 2015

Prepared by:
Environmental and Technical Division Staff
City of Keizer, Public Works Department

**Certification Regarding the City of Keizer
WPCF Annual Report 2014/2015**

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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Table of Contents

Acronyms

Executive Summary	1
Section 1 – Introduction	
1.1 Background	2
1.2 Annual Report Requirements	2
1.3 Responsible Personnel	3
1.4 Contents	3
1.5 Proposed Modifications	4
1.6 Permit Year 2	4
Table 1.3 Responsible Personnel	3
Section 2 – Monitoring	
2.1 Overview	5
2.2 Activities for 2015 / 2016	6
Table 2.1 Table 1 Pollutants from the Monitoring Plan	5
Section 3 – Public Education	
3.1 Overview	8
3.2 Additional Activities for Report Year 2014/2015	9
3.3 Proposed Modifications and Rationale	9
3.4 Future Activities Planned for 2015/2016	9
Table 3.1 BMP Overview	8
Section 4 – Public Involvement	
4.1 Overview	10
4.2 Additional Activities for Report Year 2014/2015	10
4.3 Proposed Modifications and Rationale	10
4.4 Future Activities Planned for 2015/2016	10
Table 4.1 BMP Overview	10

Section 5 – Illicit Discharge Detection and Elimination Spill Prevention and Response

5.1	Overview	12
5.2	Additional Activities for Report Year 2014/2015	13
5.3	Proposed Modifications and Rationale	13
5.4	Future Activities Planned for 2015/2016	13
5.5	Enforcement Actions	13

Table 5.1	BMP Overview	12
-----------	--------------	----

Section 6 – Construction Stormwater Runoff

6.1	Overview	14
6.2	Additional Activities for Report Year 2014/2015 Record-Keeping and Plan Management	14 15
6.3	Proposed Modifications and Rationale	15
6.4	Future Activities Planned for 2015/2016	15

Table 6.1	BMP Overview	14
-----------	--------------	----

Section 7 – Post-Construction Stormwater Runoff

7.1	Overview	16
7.2	Additional Activities for Report Year 2013/2014	16
7.3	Proposed Modifications and Rationale	17
7.4	Future Activities Planned for 2015/2016	17

Table 7.1	BMP Overview	16
-----------	--------------	----

Section 8 – Operations and Maintenance

8.1	Overview	18
8.2	Additional Activities for Report Year 2013/2014	19
8.3	Proposed Modifications and Rationale	19
8.4	Future Activities Planned for 2014/2015	19

Table 8.1	BMP Overview	18
-----------	--------------	----

Section 9 – Pollution Prevention in Municipal Operations (Good Housekeeping)

9.1	Overview	20
9.2	Additional Activities for Report Year 2013/2014	20
9.3	Proposed Modifications and Rationale	20
9.4	Future Activities Planned for 2014/2015	20

Table 9.1	BMP Overview	20
-----------	--------------	----

Section 10 – Record-Keeping and Reporting

10.1	Overview	21
10.2	Additional Activities for Report Year 2013/2014	21
10.3	Proposed Modifications and Rationale	21
10.4	Future Activities Planned for 2014/2015	21
	Table 10.2 BMP Overview	21

Section 11 – New UICs / UIC Decommissions / Updated Registration Information

11.1	Overview	23
11.2	New UICs	23
11.3	UICs Removed from Inventory	23
11.4	UIC Closures	23

Attachments

Appendix A – Permit Year 2 UIC Sampling Results

Appendix B – New Sampling Sites

Appendix C – 2014/2015 MS4 Phase II Annual Report

Appendix D – New UIC Maps

Disc – Keizer UICs 2014/2015 Updated Registration Data

ACRONYMS AND ABBREVIATIONS

ACWA	Association of Clean Water 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
EPSC	Erosion Prevention Sediment Control
EPA	Environmental Protection Agency
ESU	Equivalent Service Unit
ESA	Endangered Species Act
FTE	Full Time Equivalent
GIS	Geographic Information System
IDDE	Illicit Discharge Detection and Elimination
LID	Low Impact Development
MCM	Minimum Control Measure
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollutant Discharge Elimination System
OAR	Oregon Administrative Rules
ODOT	Oregon Department of Transportation
O & M	Operation & Maintenance
ORS	Oregon Revised Statutes
PE	Public Education
Permittee	City of Keizer
PI	Public Involvement and Participation
PY	Permit Year
RR	Record Keeping and Reporting
SDWA	Safe Drinking Water Act
SFR	Single Family Residential
SWAC	Stormwater Advisory Committee
SWMP	Storm Water Management Plan or Program
TMDL	Total Maximum Daily Load
UGB	Urban Growth Boundary
UIC	Underground Injection Control
UICMP	Underground Injection Control Management Plan
USACE	United States Army Corps of Engineers
USGS	United States Geologic Survey
VSF	Vegetated Stormwater Facility
WPCF	Water Pollution Control Facilities (permit)

Executive Summary

The City of Keizer developed its underground injection control (UIC) program in a 3 year period from 2010 to 2013. The program was developed in response to Oregon Administrative Rules (OAR) 340-44 which regulate all groundwater as a potential drinking water source and require municipalities with 50 or more UICs to operate under a Water Pollution Control Facilities (WPCF) permit. WPCF permit # 103068 was issued to the City of Keizer on October 23, 2013. The WPCF permit covers all permittee owned and operated UICs

The City of Keizer is a NPDES Phase II permittee, and has a TMDL Implementation Plan as a Designated Management Agency for the Willamette Basin TMDL. Staff has recently participated as part of the MS4 Advisory Committee to assist DEQ with the development of the new General MS4 Phase II permit. Keizer has every intention of trying to integrate the stormwater management activities into a single Stormwater Program. Completion of the new Phase II permit will allow the City to further integrate ongoing stormwater activities to maximize existing resources and personnel.

The Annual Reports for the Phase II permit and the TMDL Implementation Plan were submitted to DEQ in late October 2015. That Annual Report is included as an attachment with this document which should be referenced for public education materials and information that crosses between the existing management strategies.

The delay in issuance of the new MS4 Phase II permit has hampered progress in advancement of Keizer's overall stormwater program although the City continues to allow the installation of UICs as a sound stormwater management option. The City looks forward to moving forward with its revised program in the near future.

Section 1 - Introduction

1.1 Background

The federal underground injection control (UIC) program was enacted in 1974, under the Safe Drinking Water Act. According to DEQ, *the UIC program's goal is to protect freshwater aquifers from contamination due to underground injection systems.* The Environmental Protection Agency (EPA) gave DEQ the authority to regulate UICs in Oregon as the agent for EPA in 1984 and again in 1991. DEQ regulates the UIC program under Oregon Administrative Rules Chapter 340, Division 44.

The City of Keizer began formally moving forward with development of a UIC program in 2008/2009 starting with the completion of a comprehensive inventory of UIC devices and their locations within the City. In December 2009, the City applied for a WPCF permit in order to legally operate and manage approximately 86 publicly owned UICs. The City was issued an individual WPCF Permit #103068 on October 24, 2013.

1.2 Annual Report Requirements

In accordance with Schedule B(4) of the Permit, the City of Keizer as the permittee must submit an annual report to DEQ by December 31 of each year starting in 2014. The annual reporting period shall be for the time period of July 1 through June 30. The report must:

1. *Include the results of stormwater monitoring conducted in accordance with the DEQ approved monitoring plan;*
2. *Discuss any Table 1 action level exceedances and actions taken to address the exceedances;*
3. *Describe any actions taken to implement the UICMP, any proposed modifications to the UICMP, and any additional actions taken to manage injection systems to ensure groundwater protection;*
4. *Describe any actions described in the UICMP that you were not able to complete and why;*
5. *Identify any injection systems that you closed, retrofitted, or installed during the year;*
6. *Describe your future known plans to install, modify, convert, or close any underground injection system;*
7. *Identify any changes to the key personnel or areas of responsibility for the permit;*
8. *Identify any newly-discovered underground injection control systems; and*
9. *Provide one hard copy and one electronic copy of the Annual Report*

This document serves as the WPCF Annual Report for year 2014/2015 for the City of Keizer.

1.3 Responsible Personnel

Table 1.3 provides responsible personnel for implementing the City's UIC program.

Table 1.3 – Responsible Personnel

<i>Key Personnel</i>	<i>Area of Responsibility</i>
Bill Lawyer , Public Works Director P.O. Box 21000 Keizer, OR 97307 (503)390-3700 lawyerb@keizer.org	Department Director Stormwater Budget Inter-Agency Lead Citywide Communication
Elizabeth Sagmiller , Environmental & Technical Division Manager P.O. Box 21000 Keizer, OR 97307 (503)856-3563 sagmillere@keizer.org	Management of Permitted Stormwater Programs Annual Reporting/Regulatory Reporting Operational Plan Development Maintenance/Repair Policy Development Recordkeeping Policy Development Education and Outreach GIS Management Inter-Agency Coordination Post-Construction in New and Re-development UIC Installation Policy UIC Decommission/Retrofits Policy
Kat LaFever , Senior Environmental Program Technician P.O. Box 21000 Keizer, OR 97307 (503)856-3526 lafever@keizer.org	Systemwide Assessment Monitoring Plan Data Analysis/Recordkeeping Stormwater GIS Management/Maintenance
Mike Griffin , Stormwater Operations & Streets Division Manager P.O. Box 21000 Keizer, OR 97307 (503)856-3551 griffinm@keizer.org	Implementation of Operations and Maintenance Plan Implementation of Good Housekeeping Plan Implementation of Spill Response Field Manual Implementation of Illicit Discharge and Detection Plan Stormwater System Repairs and prioritization Field Investigation and Response (IDDE, Spills) UIC Maintenance and Management
Matt Reyes , Public Works Project Manager P.O. Box 21000 Keizer, OR 97307 (503)856-3558 reyesm@keizer.org	Project Management for Large Scale Development

1.4 Contents

Section 2 of this document will cover the monitoring findings for 2014/2015. Sections 3 through 9 will describe activities and actions as specified in Schedule B 4(c) and (d) of the permit. Specifically each referenced section will include an accounting of progress on each BMP, any proposed modifications and the rationale for those changes. The text noted in blue in sections 3

through 9 apply specifically to UICs and WPCF permit components. The MS4 Phase II Annual Report for 2014 / 2015 is attached in Appendix C. This document discusses any cross over activities between the two programs, and any additional actions not referenced in the UICMP. It also includes a section specifically related to the TMDL Implementation Plan . Section 10 will include a discussion of record-keeping activities, and Section 11 will cover newly discovered UICs, UIC decommissions, and updated registration information.

1.5 Proposed Modifications

The City of Keizer is a Phase II NPDES permittee. The initial permit was obtained in March 2007. As a requirement of that permit, the City submitted permit renewal materials to DEQ 180 days prior to the expiration of the permit which occurred on February 28, 2012. The renewal packet included a Revised SWMP with BMPs that were developed based on guidance and direct communication with the DEQ permit writer at the time.

Currently DEQ has indicated that they are looking to develop a general permit for the Phase II agencies. The Association of Clean Water Agencies (ACWA) has been involved in helping DEQ determine the best path forward, but progress has been somewhat inconsistent. Given the new focus on the general permit and the amount of time that has passed since the Revised SWMP was written, the document may have useful BMPs but is of little use in being part of a comprehensive integrated stormwater program. Unfortunately many of the BMPs in the Revised SWMP were referenced in the DEQ approved UICMP and as a result, the City may be looking at modifications to existing UIC BMPs when the General Permit is issued.

1.6 Permit Year 2

Staff has made good progress with program implementation over the second WPCF implementation year. More emphasis has been placed on the role of UICs in stormwater management for the City of Keizer and the stormwater program as a whole continues to become more refined.

The City looks forward to a new MS4 Phase II permit which should provide for a means to meld the various regulatory programs into a single in integrated Stormwater Program.

Section 2 – Monitoring

2.1 Overview

The City of Keizer Stormwater Monitoring Plan was approved by DEQ in August 2013. According to that document the City of Keizer will:

- Choose sample sites that represent stormwater inputs (both UIC and MS4)
- Choose sample sites that represent possible pollutant source areas as much as possible (UICs with >1000 TPD, Commercial/Industrial drainage, wooden power pole density, etc)
- Choose sample sites predominantly from the “Response Needed” UICs (those without protectiveness demonstrations based on the *Groundwater Protectiveness Demonstration*)

The City completed the second sampling year in 2014/2015. Two storms were sampled on 10/22/14 and again on 12/09/14. While staff would have like to have a larger time range between the two events, it was a predominantly dry year which facilitated the need to sample when the criteria was in place. Sample sites are listed as follows:

- UIC 101 – Commercial/Industrial
- UIC 97 – High Traffic > 1000 TPD
- UIC 25 – Hybrid System / UIC Connected to MS4
- UIC 01 – High Power Pole Density
- UIC 51 – Multi-Family
- UIC 83 – Single Family Residential

No action level exceedances were noted according to the Action Levels for Pollutants shown in Table 2.1.

Table 2.1 – Table 1 Pollutants from the Approved Monitoring Plan

TABLE 1 POLLUTANTS - Action Levels for Pollutants	
Monitoring Parameter	Action Level at Injection Point (µg/L)
Benzo(a)pyrene	2
Di(2-ethylhexyl)phthalate	300
Pentachlorophenol	10
Lead (Total)	500
Zinc (Total)	50,000
Copper (Total)	1300

The sample data for 2014/2015 is included in Appendix A. The following summarizes the data included in Appendix A.

- The average detection was only 0.87% of Action Level
- Non-detects made up 35% of the samples (50 out of 144 data points could not detect any of the pollutant)
- Only a single sample of a single pollutant fell above 5% of any Action Level.
- The highest single detection was for Penta, at 9% of Action Level at UIC #25 on 10/22/14

2.2 Activities for 2015/2016

The City of Keizer has two years of sampling data from the existing UIC sample sites, and have had no significant levels of Table 1 pollutants identified through this effort. The City has proposed, and DEQ has approved of new sample site locations to increase site distribution and further characterize the stormwater runoff entering Keizer's UICs. The City is not proposing any changes to the Table 1 pollutants at this time. Maps of the new sites are included in Appendix B.

Staff chose UIC sample sites based on six major type categories as were identified in the DEQ approved Monitoring Plan. They are as follows:

Major Pollutant Sources

- High Traffic
- Industrial/Commercial
- Wooden Power Poles

Most Prevalent Land Uses in Keizer

- Residential
- Multi-Family

Connected UICs

- MS4 Connected

The following sample locations for each of the categories is outlined below.

UIC 25- High Traffic

This UIC was on our original list for the MS4 Connected category. However, UIC 25 actually covers a large area including both residential as well as high traffic categories. The original sample site was well inside the UIC drainage are in the residential are. The new sample location is located to capture the drainage from River Road, a major arterial. (See map in Appendix B)

UIC 101- Commercial/Industrial (sample point 454)

Keizer has a limited number of sites to choose from in this category. Keizer has very few industrial sites and commercial sites with UICs tend to be private UICs and/or smaller drainage areas. Because of the limitations in this category staff has decided to keep our current site, UIC

101 as the Commercial/Industrial representative. This site has a relatively large drainage area, with multiple automotive and other industrial shops, the runoff from which is well captured at the existing sampling point.

UIC 10 – Wooden Power Poles (Penta source)

UIC 10 has not been sampled previously. It has a good source of potential pentachlorophenol with a wooden power pole housed in impervious material, draining directly to a nearby catch basin leading into the UIC.

UIC 36 – Single Family Residential

UIC 36 has not been sampled previously. It is a medium-sized horizontal perforated pipe UIC with the sampling point in the center of the drainage areas.

UIC 21 – Multi-Family Residential

The new proposed site for Multi-Family Residential is an apartment complex with the drainage from the parking area draining directly into a public UIC. The original Multi-Family site is in a duplex area.

UIC 16 – MS4 Connected UIC

The new sample site for this UIC is located in a residential area which has a hybrid UIC-MS4 system. The sampling point is capturing runoff from the UIC portion of the system. (See map in Appendix B

Section 3 – Public Education

3.1 Overview

PE-1 Develop a Public Education Plan that addresses regional stormwater issues. Utilize the Mid-Willamette Outreach Group (MWOOG) to develop products.

PE-2 Utilize a statistical method to assess public awareness of stormwater issues

PE-3 Utilize the annual consumer confidence report (CCR) to inform the public about stormwater related issues

PE-4 Update the City’s website

PE-5 Provide support to the Claggett Creek Watershed Council

[PE-U-1 Develop a Brochure for use by Commercial, Retail, or Multi-Family Property Owners and Manager](#)

Table 3.1 – BMP Overview

BMP	Activity	Action	Measureable Goal Met Y/N	Results
PE-1*	1. Develop a Public Education Plan that addresses regional stormwater issues. 2. Utilize MWOOG to develop outreach products	Develop a plan that refines the focus for outreach on specific audiences with key messages Participate in at least 8 meetings and host 2 events	Y Y	A draft Public Education Plan has been developed Howl-A-Palooza was held on 10/4/1014 and the Erosion Control Summit was held on 1/27/15
PE-2	Utilize a statistical method to assess public awareness of stormwater issues	This BMP was added to the first revision of the SWMP with the permit renewal package.	N	This BMP was not to be implemented until late in the permit term
PE-3	Utilize the annual consumer confidence report (CCR) to inform the public about stormwater related issues	The drinking water CCR is used as a mechanism to reach a large range of residents in Keizer.	Y	CCR was sent to 16,311 addresses the week of 5/25/15. Contents included updates on the erosion control program, proper management of fall leaves, and private stormwater facility inspections.

PE-4	Update the City's website		Y	The City's website was updated in 2014/2015. All stormwater related information was transferred to the new site. The Environmental Division section needs to be refined
PE-5	Provide support to the Claggett Creek Watershed Council	Attend meetings and activities	Y	Attended 4 meetings and 4 events.
PE-U-1	Develop a brochure for commercial, retail, and multi-family property owners or managers where UICs are used for stormwater management		Y	The City of Keizer has chosen to utilize the ACWA brochure for businesses and an in-house brochure has been developed as well.

3.2 Additional Activities for Report Year 2014/2015

Outreach materials are included with the MS4 Phase II Annual Report in Appendix C

PE-U-1 The brochures referenced in this BMP were to be distributed during the private stormwater inspection program which commenced during the summer of 2015. No new UICs were identified and therefore, no new brochures were given out.

3.3 Proposed Modifications and Rationale

There are no specific modifications being planned for the existing BMPs at this time.

3.4 Future Activities Planned for 2015/2016

PE-4 The City of Keizer website has been redesigned. Staff will use this opportunity to reorganize information. Some of that work is currently underway. The WPCF Annual Report will be posted online and new UIC content is expected to be added.

PE-U-1 The private stormwater facility program will commence again in the summer of 2016. Staff anticipates that new UICs will be located in the upcoming year.

Section 4 – Public Involvement

4.1 Overview

The City selected 2 BMPs to address public involvement in the UICMP. The SWAC has been instrumental in assisting staff with promoting the stormwater program as a whole. Because the committee currently includes 3 members of the City Council, the overall body of elected officials for the City are kept informed on the most pressing stormwater issues.

PI-2 Utilize the SWAC for Annual Program Review

PI-U-1 The SWAC will devote at least 2 of their regular meetings solely to UIC issues

Table 4.1 – BMP Overview

BMP	Activity	Action	Measureable Goal Met Y/N	Results
PI-2	Utilize the SWAC for Annual Program Review	Set meeting specifically dedicated to stormwater management plans	Y	All BMPs were evaluated. Result reviewed and changes approved by SWAC in July 2015
PI-U-1	The SWAC will devote at least 2 of their regular meetings solely to UIC issues		Y/N	SWAC meetings were held on 10/7/14, 11/20/14, and 4/7/15. Content was not solely devoted to UICs, but discussion included UICs at every meeting.

4.2 Additional Activities for Report Year 2014/2015

Staff will add the 2014/2015 WPCF Annual Report to the City’s website.

4.3 Proposed Modifications and Rationale

There are no proposed modifications to the public involvement BMPs at this time.

4.4 Future Activities Planned for 2015/2016

PI-2 Because the status of the new MS4 Phase II permit is unknown at this time, many of the public involvement activities will involve the implications of the new permit. However, staff

would eventually like to see a truly integrated Stormwater Program so managing UICs will be part of the planning process.

Section 5 – *Illicit Discharge Detection and Elimination Spill Prevention and Response*

5.1 Overview

The City selected 8 BMPs to address Illicit Discharge Detection and Elimination (IDDE) and Spill Prevention and Response issues within the City of Keizer.

ID-1	Develop Ordinance to Prohibit Illicit Discharges
ID-2	Develop Illicit Discharge Detection and Elimination (IDDE) Plan
ID-3	Train City Employees to Implement IDDE Plan
SP-U-1	Develop a Spill Response Manual
SP-U-2	Conduct Annual Training for Employees that Respond to Spills
SP-U-3	Complete a Spill Prevention and Response Plan
SP-U-4	Coordinate with Emergency Response Agencies
SP-U-5	Install Catchbasin Markers on Newly Installed UICs

Table 5.1 – BMP Overview

BMP	Activity	Action	Measureable Goal Met Y/N	Results
ID-1	Revise the IDDE Plan	Task Completed in 2013/2014	Y	Implementation of the new plan
ID-2	Develop criteria for high risk areas		Y	See discussion in Subsection 5.2
ID-3	Map Potential High Risk Areas in GIS	Develop high Risk Tool Set	Y	Complete. Compiled data will need infrequent maintenance
SP-U-1	Complete the Spill Response Manual	Develop the manual and document completion in Annual Report	Y	The Spill Response Field Manual was developed by Environmental staff
SP-U-2	Conduct annual training for employees.	Conduct annual training for response to spills. Training to include a recordkeeping and reporting component	Y/N	21 employees. Training on 5/20/15
SP-U-3	Complete the Spill Prevention and Response Plan (SPRP)		Y	The Spill Prevention and Response Plan has been completed

SP-U-4	Coordinate with emergency response agencies for activities which involve UICs		Y	Staff are receiving monthly logs from the Fire Department and a notification process has been developed with the Police Department
SP-U-5	Install catchbasin markers on Newly installed UICs		N	There were 3 public UICs installed in 2014/2015 but none of the subdivisions are complete

5.2 Additional Activities for Report Year 2014/2015

As it applies to ID-2, criteria has been established to help identify areas which may be prone to IDDE incidents. These include land use type, past history of IDDE incidents, hazardous material storage or use.

5.4 Future Activities Planned for 2015/2016

SP-U-5 New UICs installed in Keizer will be marked with the red medallion. Installation will be conducted before the project has been approved by the City.

No additional activities are planned for the existing BMPs at this time.

5.5 Enforcement Actions

Minimum Control Measure #3 of the Phase II stormwater program requires the City to respond to illicit discharges and water quality issues. The 2014/2015 enforcement actions are included in Appendix C of this report (Appendix B of the MS4 2014/2014 Annual Report) That table includes a breakdown of incidents that involved the MS4 and incidents that involved UICs.

Section 6 – Construction Site Stormwater Runoff Control

6.1 Overview

- CS-1 Conduct EPSC Training for Applicable Staff
- CS-3 Revise the Construction Site Pollution Prevention Plan (CSPPP) and Ordinance
- CS-4 Establish Hotline to Receive Complaints from the Public
- CS-U-1 Add inspection of UICs to the City’s Erosion Control Field Inspection SOP

Table 6.1 – BMP Overview

BMP	Activity	Action	Measureable Goal Met Y/N	Results
CS-1	Conduct EPSC Training for Applicable Staff	This training included a brief overview of a typical site and applicable BMPs. Also a review of internal plans	Y	16 employees participated Training held on 6/1/15
CS-3	Revise the Construction Site Pollution Prevention Plan (CSPPP) and Ordinance		Y	The ordinance was revised and apoted by City Council on 12/1/14. Forms were simplified and are available online
CS-4	Establish hotline to receive complaints from the public		Y/N	The City has an after hours phone system which allows the caller to choose an option for streets/stormwater issues. A separate hotline has not been developed
CS-U-1	Add inspection of UICs to the City’s Erosion Control Field Inspection SOP		Y	The SOPs were revised to include UICs

6.2 Additional Activities for Report Year 2014/2015

The City’s lead inspector provided the bulk of the training for Public Works personnel in 2014/2015. In addition to the training held on 6/1/15, 7 Public Works employees attended the Erosion Control and Stormwater Management Summit hosted by the MWOOG group in January 2015.

Record-Keeping and Plan Management

All new and existing CSPPPs are spatially managed through an ArcMap shapefile which shows the location and status of each permit. All CSPPPs are also managed through an excel spreadsheet and kept up to date with inspection information and status updates.

The City has provided DEQ full documentation of all components of the erosion control program and is seeking inclusion in the 1200-CN permit.

6.3 Proposed Modifications and Rationale

There are no proposed modifications at this time.

6.4 Future Activities Planned for 2015/2016

There are no specific future activities planned for this minimum control measure for 2015/2016

Section 7 – Post-Construction Stormwater Runoff

7.1 Overview

The City selected 3 BMPs to address Post-Construction Stormwater Runoff

DS-1 Revise Design Standards and Development Code to Include Capture and Treatment for New and Re-Development

DS-2 Implement the Revised Standards and Conduct Plan Review, Inspections, and Enforcement Activities

DS-3 Conduct Training for Implementation of Revised Water Quality Development Standards

Table 7.1 – BMP Overview

BMP	Activity	Action	Measureable Goal Met Y/N	Results
DS-1	Revise Design Standards and Development Code to include capture and treatment for new and re-development		Y/N	Staff expects to be able to utilize sections of the Western Oregon LID Manual sometime this winter
DS-2	Implement the Revised Standards and conduct plan review, inspections, and enforcement activities		No	Staff is conducting plan review and inspections, but there has been little progress in development of the Design Standards.
DS-3	Conduct training for implementation of revised water quality development standards		Y/N	Some training has occurred with Environmental staff for LID development and maintenance

7.2 Additional Activities for Report Year 2014/2015

The City of Keizer has not developed a comprehensive post-construction program. The existing Design Standards were adopted by City Council resolution and include references to Clean Water Services standards as well as King County, WA. These references, and the ability of the Public Works Director to impose such requirements, has resulted in a substantial increase in the installation of low impact development elements into new and re-development projects.

The City of Keizer is actively moving forward with implementing suitable Design Standards that will address post-construction standards, however the delay of the MS4 Phase II permit has

hampered progress. Permittees do not have a clear path forward for what DEQ will require. The result has been installing and implementing elements of LID, including UICs, but no formal up-to-date design standards are in use. Environmental staff resources are limited and developing such standards in-house is a daunting task at best.

7.3 Proposed Modifications and Rationale

There are no modifications proposed at this time.

7.4 Future Activities Planned for 2015/2016

DS-1 The City hopes to adopt the portions of the Western Oregon LID Manual for use in the spring of 2015/2016. Staff will continue to push forward with portions of the Design Standards that address stormwater management.

Section 8 – Operation and Maintenance

8.1 Overview

The City selected 6 BMPs to address Operation and Maintenance practices in the City of Keizer

- OM-2** Annually Inspect 10% of the City’s Publically Owned Infrastructure
- OM-4** Catchbasin Cleaning – Implement a Rotation Program to Include Annual Inspection, Cleaning, and Repair for Catchbasins
- OM-5** Implement Street Sweeping Program
- OM-U-1** Complete the UIC Operations and Maintenance Manual for UICs
- OM-U-2** Implement the Operations and Maintenance Manual as Designed
- OM-U-3** Conduct Employee Training

Table 8.1 – BMP Overview

BMP	Activity	Action	Measureable Goal Met Y/N	Results
OM-2	Video Inspection of Stormwater System	Contracted inspection with a goal of 10% of the system annually	Yes / 9.5% of the system was inspected	No new UICs identified. 32,818.4 ft of MS4 pipes were cleaned and video inspected. 3800 cu yds of material was removed
OM-4	Catch basin inspection program	Inspect structures, clean and develop a repair list	Y	298 catch basins were cleaned in 2014 and 81 manholes cleaned. 33 catch basins were repaired. 2099 catch basins were inspected in June 2015 and 327 manholes were inspected
OM-5	Street Sweeping	Contracted activity	Y	1644 cubic yards of material was removed through street sweeping
OM-U-1	Complete the UIC O & M Manual		Y	The manual was completed in the Spring of 2014
OM-U-2	Implement the O & M manual as designed		Y/N	Sections of this document are being implemented with other programs

OM-U-3	Conduct employee training		N	Maintenance personnel will address this in 2015/2016
--------	---------------------------	--	---	--

8.2 Additional Activities for Report Year 2014/2015

OM-4 As was noted in Table 8.1, 2,099 catch basins (both MS4 and UICs) were inspected in 2014/2015. All updated information was added to the City’s GIS system.

OM-5 Street sweeping is a contracted activity in Keizer. The following removal totals (in cubic yards) were provided by the City’s contractor, Wheat LLC:

Quarterly Removal Totals – Annual Comparisons

	2012/2013	2013/2014	2014/2015
July-Sept	108	159	236
Oct-Dec	598	921	962
Jan-Mar	163	313	220
April-June	179	252	226
Total	1048	1645	1644

8.3 Proposed Modifications and Rationale

There are no proposed modifications at this time.

8.4 Future Activities Planned for 2015/2016

BMP OM-U-2 Maintenance personnel need to fully utilize the UIC Operations and Maintenance Manual

BMP OM-U-3 Maintenance personnel need to have regular training that applies directly to the UIC Operations and Maintenance Manual

Section 9 – Pollution Prevention in Municipal Operations (Good Housekeeping)

9.1 Overview

The City selected 2 BMPs to address Good Housekeeping efforts for the City’s UICs

GH-U-1 Revise the Existing Good Housekeeping Manual to Include UIC Related Information and BMPs

GH-U-2 Conduct Employee Training

Table 9.1 – BMP Overview

BMP	Activity	Action	Measureable Goal Met Y/N	Results
GH-U-1	Revise the existing Good Housekeeping Manual to include UIC related information and BMPs		Y	The Good Housekeeping Manual was updated in 2013/2014
GH-U-2	Conduct employee training		Y	16 attendees on 6/1/15.

9.2 Additional Activities for Report Year 2014/2015

There are no additional activities to report

9.3 Proposed Modifications and Rationale

No modifications are proposed at this time

9.4 Future Activities Planned for 2015/2016

No additional activities are planned for 2015/2016

Section 10 – Record-Keeping and Reporting

10.1 Overview

The City of Keizer selected 1 BMP to address record-keeping activities

RR-1 Develop an Electronic Stormwater Database to Track Stormwater Program Elements Including Repair and Maintenance Activity.

Table 10.1 – BMP Overview

BMP	Activity	Action	Measureable Goal Met Y/N	Results
RR-1	Develop an electronic stormwater database to track stormwater program elements including repair and maintenance activity		Yes/no	The City continues to add and update data in the GIS system. Not all program elements have been added to the database

10.2 Additional Activities for Report Year 2014/2015

Environmental staff have continued to refine record-keeping efforts for the applicable Divisions. Ongoing GIS management accomplishments are too numerous to list, but an example of the applicable activities are noted in this subsection. The list below captures only a portion of the numerous data management and record-keeping activities undertaken by staff in 2014/2015 for the stormwater program as a whole.

- Outfall inspection results updated
- Grid maps updated on a quarterly basis
- Erosion control permits and status displayed in ArcMap
- Public and private water well data updated in GIS
- Marion County updates included in the system
- City of Salem updates included in the system
- Archived document file added to the Stormwater Drive and index developed
- Infrastructure corrections updated in the GIS system
- Repair work inventoried and prioritized to include backlog work
- Private inspection project has been added to GIS
- Assets have been reviewed to determine ownership (public or private) and maintenance responsibilities (public or private).

10.3 Proposed Modifications and Rationale

There are no proposed modifications at this time.

10.4 Future Activities Planned for 2015/2016

Staff will continue to refine recordkeeping activities over the 2015/2016 permit term.

Section 11 – New UICs / UIC Decommissions / Updated Registration Information

11.1 Overview

The purpose of this section of the WPCF Annual Report is to report on those publically owned UICs that were discovered during the permit year, those that are no longer part of the inventory, or newly installed publicly owned UICs. This section also discusses any UICs that were decommissioned during the permit year or decommissions planned for the next permit year.

For details on the UICs referenced below, please see updated UIC registration spreadsheet included on disk with this report.

11.2 New UICs

There were 2 new publicly owned UICs that were installed during 2014/2015. These UICs are associated with new subdivisions at Windsor Island Estates, and Northfield Estates. The new UIC numbers are 114 and 115 respectively. See Appendix D

The three new UICs have been evaluated against the Groundwater Protectiveness Demonstration done by GSI for the City of Keizer in 2013. When depth at deepest point of injection was compared to the depth to seasonal high groundwater, all three new UICs have adequate separation to be fully *protective of groundwater*.

11.3 UICs Removed from Inventory

No UICs were removed from the inventory for 2014/2015.

11.4 UIC Closures (Decommissions)

UIC number 82 was blocked during 2014/2015. This UIC is slated to be decommissioned no later than fiscal year 2016/2017.

APPENDIX A

WPCF

APPENDIX A: PERMIT YEAR 2 WPCF UIC SAMPLING RESULTS

ND = Pollutant Not Detected in the Sample

SampleDate	SampleID	SiteLocation	Analyte	Result (µg/L)	ActionLevel (µg/L)	MRL
10/22/2014	PY2_1	UIC 83 - Residential SF	Copper	4.540	1300	0.5
10/22/2014	PY2_1	UIC 83 - Residential SF	Lead	0.993	500	0.1
10/22/2014	PY2_1	UIC 83 - Residential SF	Zinc	51.300	50000	1
10/22/2014	PY2_1	UIC 83 - Residential SF	Benzo(a)pyrene	ND	2	0.1
10/22/2014	PY2_1	UIC 83 - Residential SF	Phthalate (DEHP)	2.290	300	1
10/22/2014	PY2_1	UIC 83 - Residential SF	Penta (PCP)	0.380	10	0.2
10/22/2014	PY2_2	UIC 25 - MS4 Connected	Copper	1.650	1300	0.5
10/22/2014	PY2_2	UIC 25 - MS4 Connected	Lead	0.169	500	0.1
10/22/2014	PY2_2	UIC 25 - MS4 Connected	Zinc	32.400	50000	1
10/22/2014	PY2_2	UIC 25 - MS4 Connected	Benzo(a)pyrene	ND	2	0.1
10/22/2014	PY2_2	UIC 25 - MS4 Connected	Phthalate (DEHP)	ND	300	1
10/22/2014	PY2_2	UIC 25 - MS4 Connected	Penta (PCP)	0.910	10	0.2
10/22/2014	PY2_3	UIC 97 - High Traffic	Copper	2.730	1300	0.5
10/22/2014	PY2_3	UIC 97 - High Traffic	Lead	0.658	500	0.1
10/22/2014	PY2_3	UIC 97 - High Traffic	Zinc	32.900	50000	1
10/22/2014	PY2_3	UIC 97 - High Traffic	Benzo(a)pyrene	ND	2	0.1
10/22/2014	PY2_3	UIC 97 - High Traffic	Phthalate (DEHP)	ND	300	1
10/22/2014	PY2_3	UIC 97 - High Traffic	Penta (PCP)	0.290	10	0.2
10/22/2014	PY2_4	UIC 101 - Ind/Comm	Copper	9.040	1300	0.5
10/22/2014	PY2_4	UIC 101 - Ind/Comm	Lead	0.432	500	0.1
10/22/2014	PY2_4	UIC 101 - Ind/Comm	Zinc	29.000	50000	1
10/22/2014	PY2_4	UIC 101 - Ind/Comm	Benzo(a)pyrene	ND	2	0.1
10/22/2014	PY2_4	UIC 101 - Ind/Comm	Phthalate (DEHP)	2.290	300	1
10/22/2014	PY2_4	UIC 101 - Ind/Comm	Penta (PCP)	ND	10	0.2
10/22/2014	PY2_5	UIC 51 - Residential Multi	Copper	3.500	1300	0.5
10/22/2014	PY2_5	UIC 51 - Residential Multi	Lead	1.970	500	0.1
10/22/2014	PY2_5	UIC 51 - Residential Multi	Zinc	36.200	50000	1
10/22/2014	PY2_5	UIC 51 - Residential Multi	Benzo(a)pyrene	ND	2	0.1
10/22/2014	PY2_5	UIC 51 - Residential Multi	Phthalate (DEHP)	1.020	300	1
10/22/2014	PY2_5	UIC 51 - Residential Multi	Penta (PCP)	0.310	10	0.2
10/22/2014	PY2_6	UIC 01 - Power Poles	Copper	51.500	1300	0.5
10/22/2014	PY2_6	UIC 01 - Power Poles	Lead	14.300	500	0.1
10/22/2014	PY2_6	UIC 01 - Power Poles	Zinc	68.800	50000	1
10/22/2014	PY2_6	UIC 01 - Power Poles	Benzo(a)pyrene	ND	2	0.1
10/22/2014	PY2_6	UIC 01 - Power Poles	Phthalate (DEHP)	8.110	300	1
10/22/2014	PY2_6	UIC 01 - Power Poles	Penta (PCP)	0.330	10	0.2

SampleDate	SampleID	SiteLocation	Analyte	Result (µg/L)	ActionLevel (µg/L)	MRL
12/9/2014	PY2_7	UIC 01 - Power Poles	Copper	2.540	1300	0.5
12/9/2014	PY2_7	UIC 01 - Power Poles	Lead	0.396	500	0.1
12/9/2014	PY2_7	UIC 01 - Power Poles	Zinc	11.200	50000	1
12/9/2014	PY2_7	UIC 01 - Power Poles	Benzo(a)pyrene	ND	2	0.1
12/9/2014	PY2_7	UIC 01 - Power Poles	Phthalate (DEHP)	1.400	300	1
12/9/2014	PY2_7	UIC 01 - Power Poles	Penta (PCP)	0.240	10	0.2
12/9/2014	PY2_8	UIC 83 - Residential SF	Copper	1.710	1300	0.5
12/9/2014	PY2_8	UIC 83 - Residential SF	Lead	0.104	500	0.1
12/9/2014	PY2_8	UIC 83 - Residential SF	Zinc	15.600	50000	1
12/9/2014	PY2_8	UIC 83 - Residential SF	Benzo(a)pyrene	ND	2	0.1
12/9/2014	PY2_8	UIC 83 - Residential SF	Phthalate (DEHP)	ND	300	1
12/9/2014	PY2_8	UIC 83 - Residential SF	Penta (PCP)	ND	10	0.2
12/9/2014	PY2_9	UIC 25 - MS4 Connected	Copper	10.500	1300	0.5
12/9/2014	PY2_9	UIC 25 - MS4 Connected	Lead	0.131	500	0.1
12/9/2014	PY2_9	UIC 25 - MS4 Connected	Zinc	36.800	50000	1
12/9/2014	PY2_9	UIC 25 - MS4 Connected	Benzo(a)pyrene	ND	2	0.1
12/9/2014	PY2_9	UIC 25 - MS4 Connected	Phthalate (DEHP)	ND	300	1
12/9/2014	PY2_9	UIC 25 - MS4 Connected	Penta (PCP)	ND	10	0.2
12/9/2014	PY2_10	UIC 97 - High Traffic	Copper	12.800	1300	0.5
12/9/2014	PY2_10	UIC 97 - High Traffic	Lead	8.600	500	0.1
12/9/2014	PY2_10	UIC 97 - High Traffic	Zinc	119.000	50000	1
12/9/2014	PY2_10	UIC 97 - High Traffic	Benzo(a)pyrene	ND	2	0.1
12/9/2014	PY2_10	UIC 97 - High Traffic	Phthalate (DEHP)	6.690	300	1
12/9/2014	PY2_10	UIC 97 - High Traffic	Penta (PCP)	ND	10	0.2
12/9/2014	PY2_11	UIC 101 - Ind/Comm	Copper	16.700	1300	0.5
12/9/2014	PY2_11	UIC 101 - Ind/Comm	Lead	8.550	500	0.1
12/9/2014	PY2_11	UIC 101 - Ind/Comm	Zinc	55.700	50000	1
12/9/2014	PY2_11	UIC 101 - Ind/Comm	Benzo(a)pyrene	ND	2	0.1
12/9/2014	PY2_11	UIC 101 - Ind/Comm	Phthalate (DEHP)	3.110	300	1
12/9/2014	PY2_11	UIC 101 - Ind/Comm	Penta (PCP)	0.250	10	0.2
12/9/2014	PY2_12	UIC 51 - Residential Multi	Copper	2.180	1300	0.5
12/9/2014	PY2_12	UIC 51 - Residential Multi	Lead	0.502	500	0.1
12/9/2014	PY2_12	UIC 51 - Residential Multi	Zinc	38.400	50000	1
12/9/2014	PY2_12	UIC 51 - Residential Multi	Benzo(a)pyrene	ND	2	0.1
12/9/2014	PY2_12	UIC 51 - Residential Multi	Phthalate (DEHP)	ND	300	1
12/9/2014	PY2_12	UIC 51 - Residential Multi	Penta (PCP)	ND	10	0.2

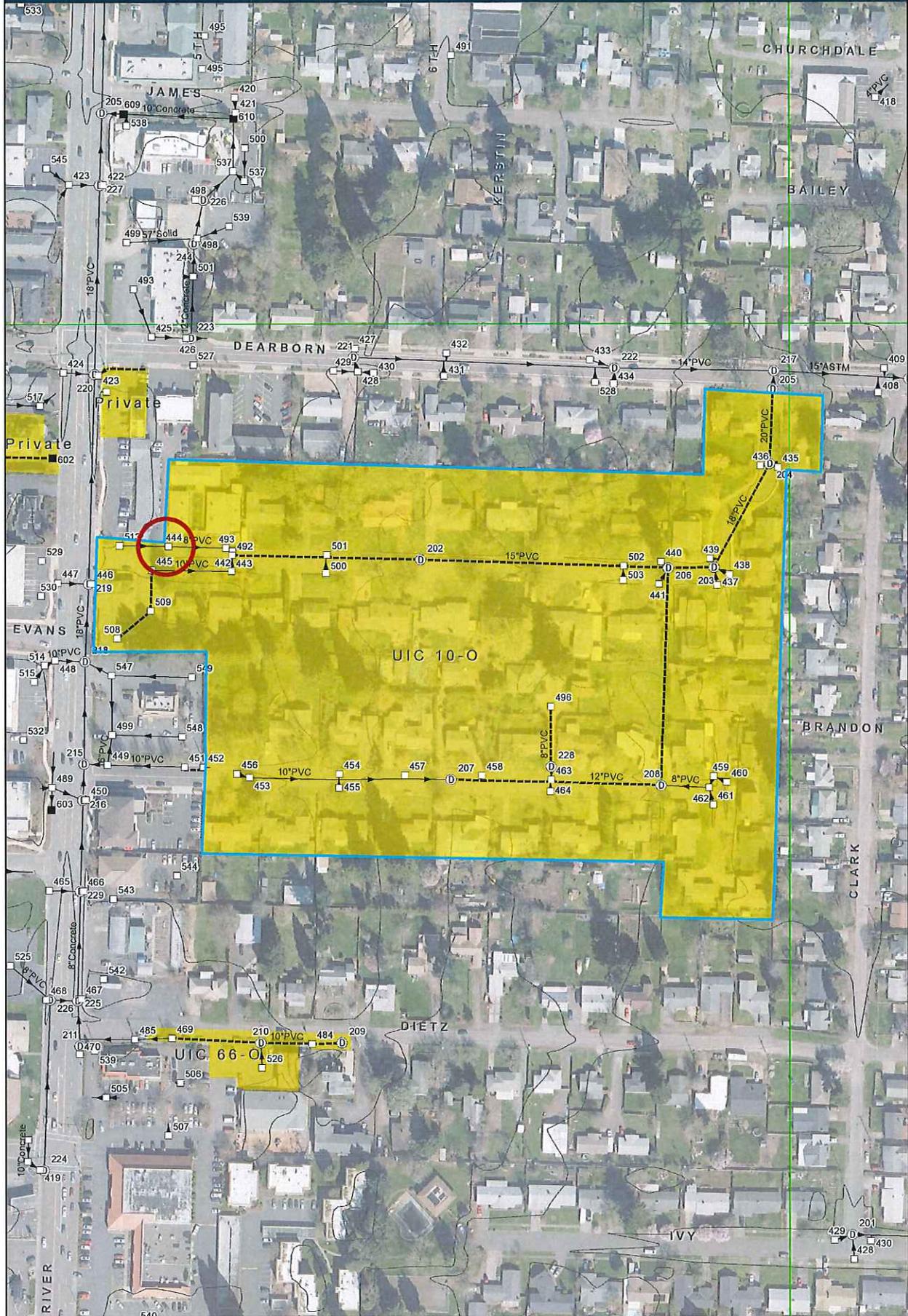
APPENDIX B

WPCF



UIC #10: Power Poles

1 inch = 148 feet



Legend

- Cleanout
- ⊕ Storm Manhole
- ⊙ Storm Outfall
- Unknown
- Aband
- Solid
- Perf
- ▭ Detention Basin
- UIC Drainage Area
- ▭ KeizerGrid

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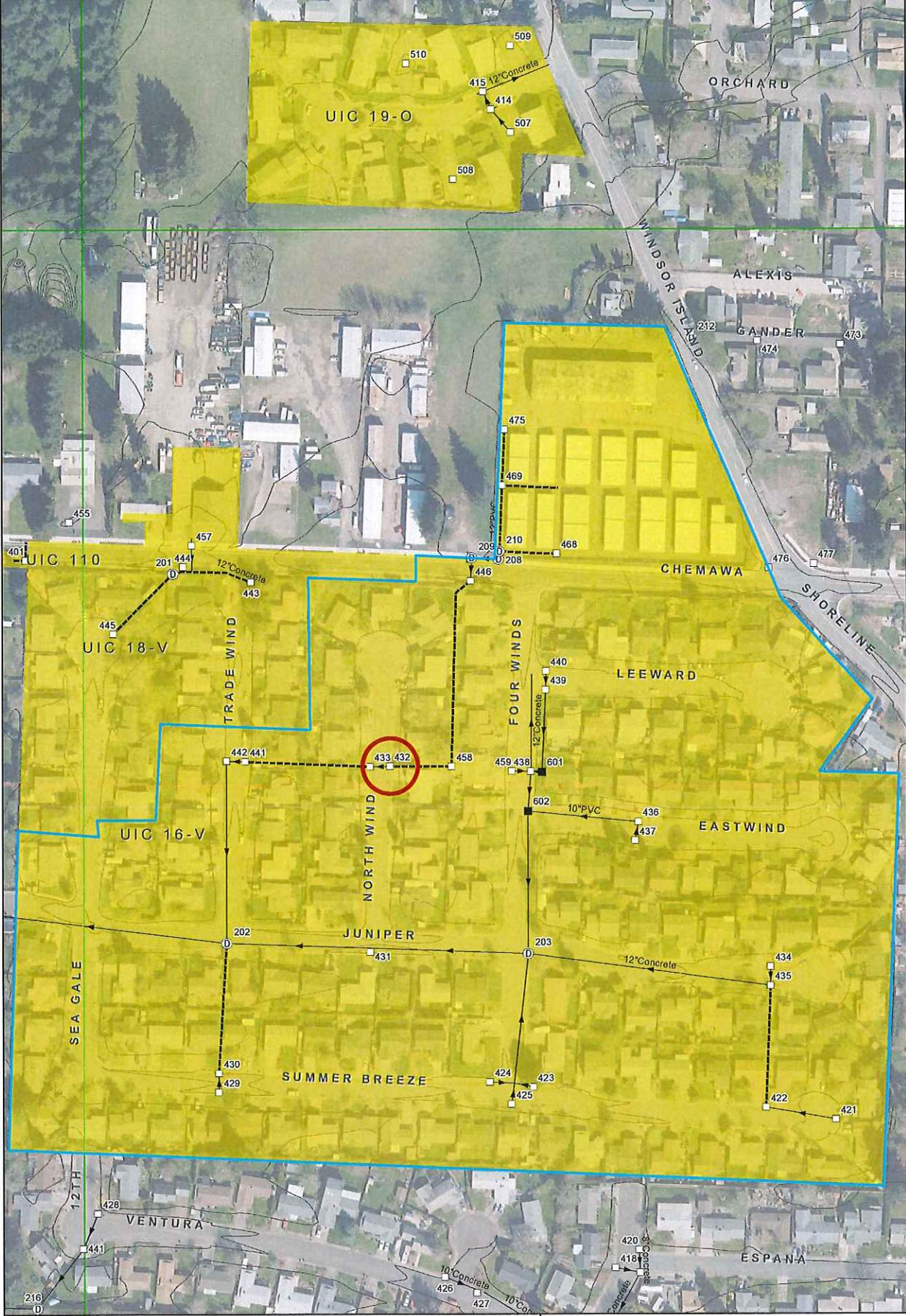
Date: 6/1/2015

User Name: johnsonb



UIC #16: Hybrid-MS4 Connected

1 inch = 148 feet



Legend

- Cleanout
- Storm Manhole
- Storm Outfall
- Unknown
- Aband
- Perf
- Plug
- Solid
- Detention Basin
- UIC Drainage Area
- KeizerGrid

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Date: 6/1/2015

User Name: Johnsonb



UIC #21: Multi-Family

1 inch = 148 feet



Legend

- Cleanout
- Unknown
- Plug
- UIC Drainage Area
- Storm Manhole
- Aband
- Solid
- KelzerGrid
- Storm Outfall
- Perf
- Detention Basin

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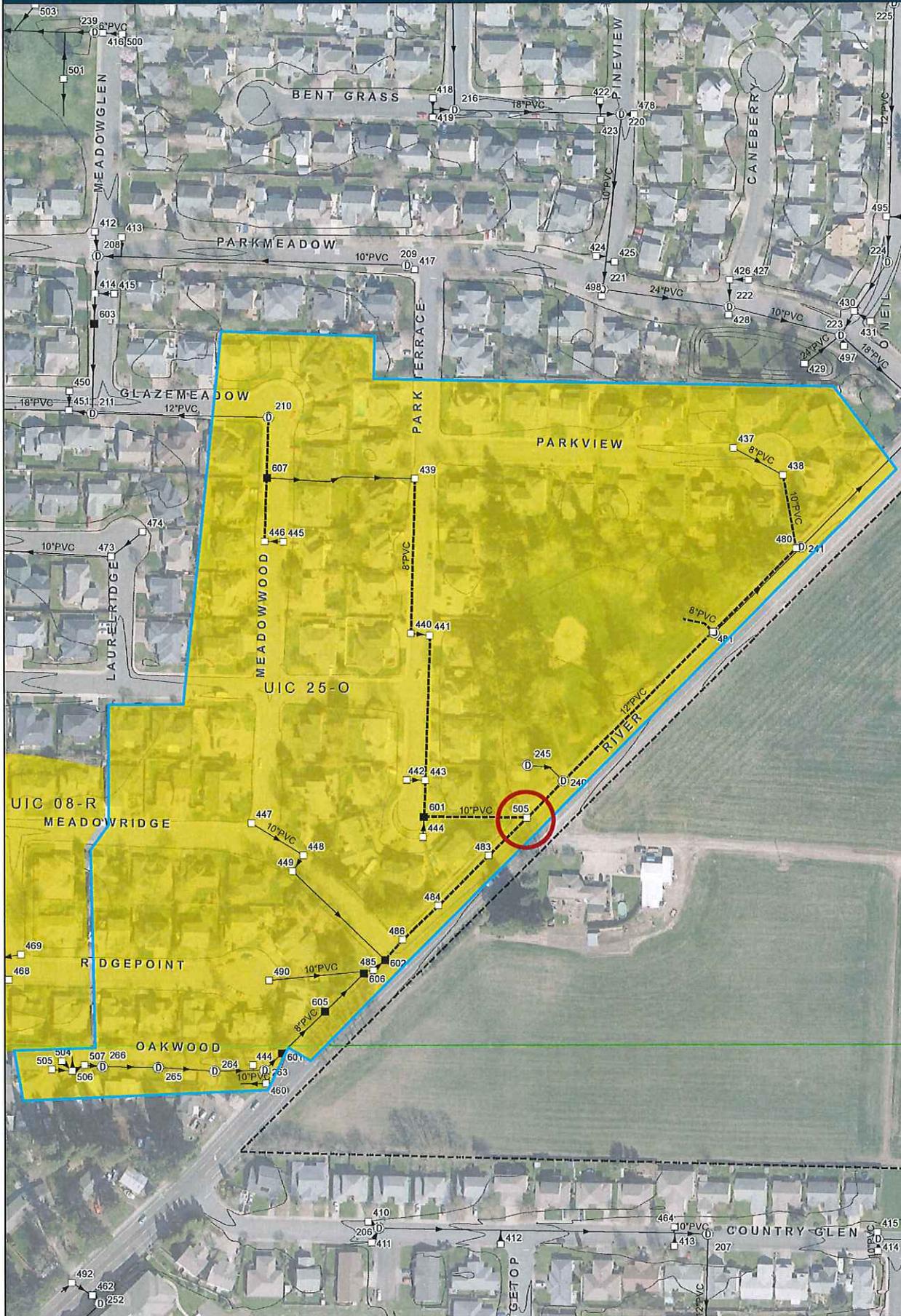
Date: 6/1/2015

User Name: Johnsonb



UIC #25: High Traffic Alternate

1 inch = 148 feet



Legend

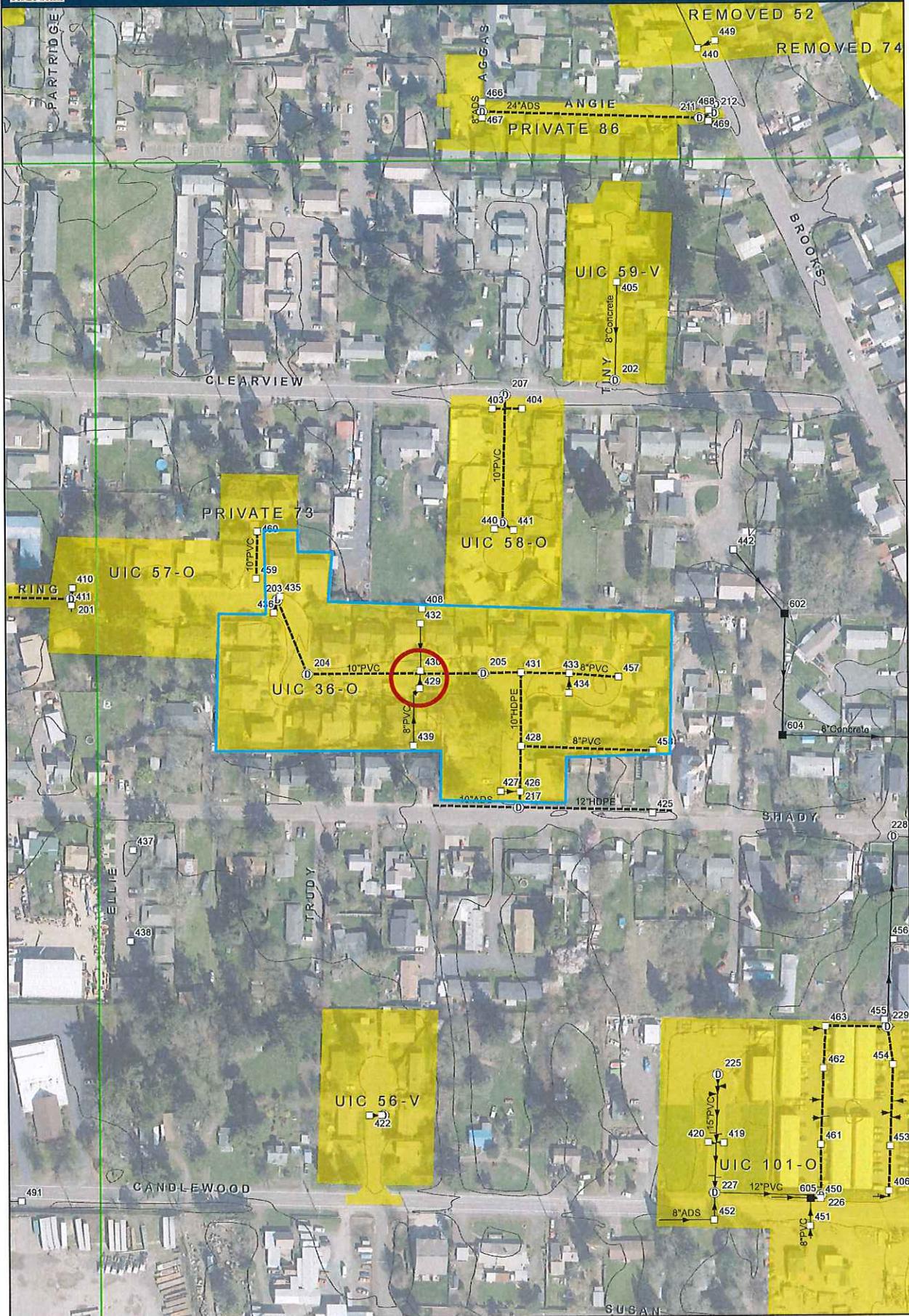
- Cleanout
- Unknown
- Plug
- UIC Drainage Area
- Keizer Grid
- Storm Manhole
- Aband
- Solid
- Perf
- Detention Basin

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UIC #36: Single-Family

1 inch = 148 feet



Legend

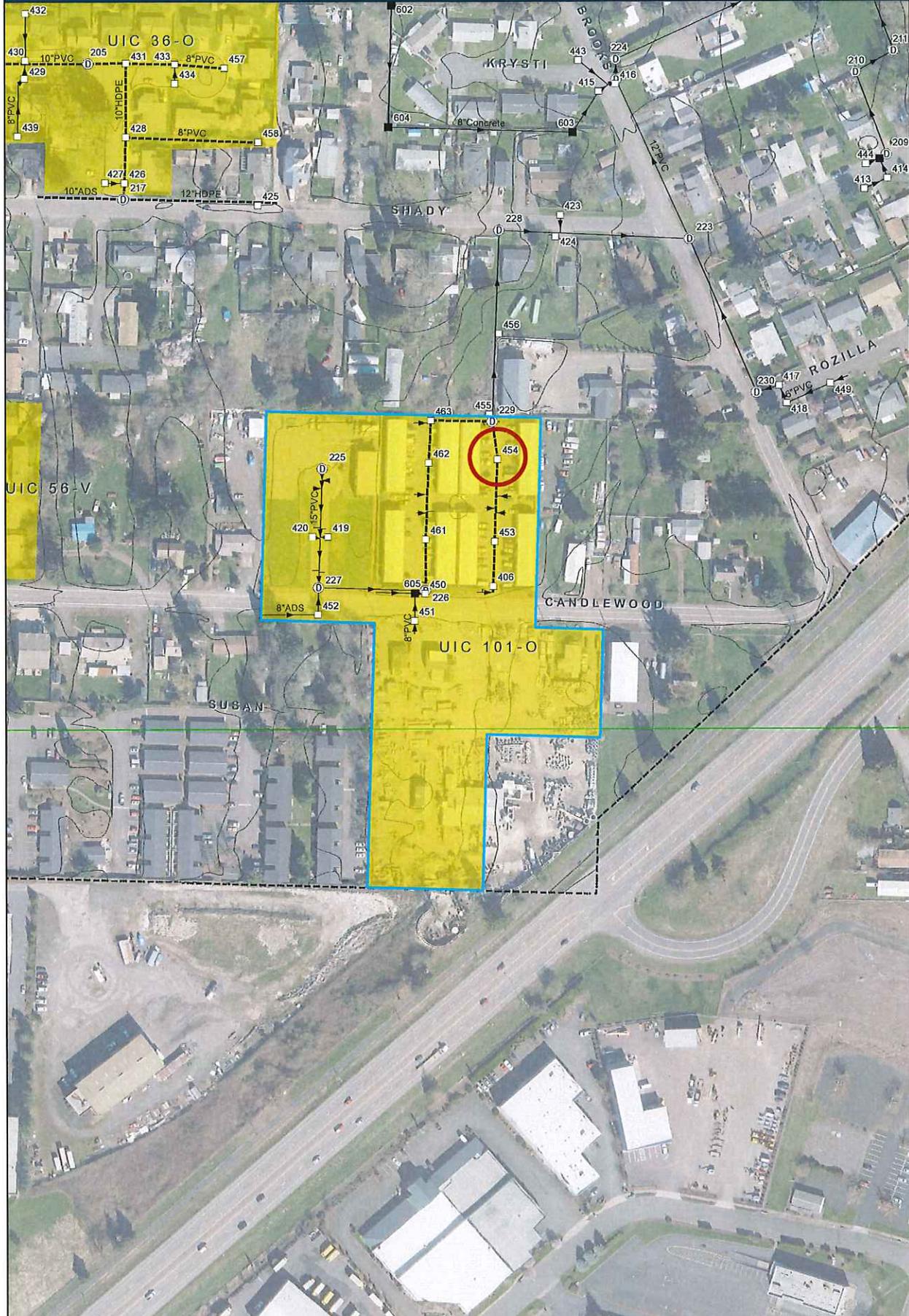
- Cleanout
- ⊙ Storm Manhole
- ⊙ Storm Outfall
- Unknown
- Plug
- Aband
- Solid
- Perf
- ▨ Detention Basin
- UIC Drainage Area
- ▭ KeizerGrid

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UIC #101: Commercial/ Industrial

1 inch = 148 feet



Legend

- Cleanout
- Storm Manhole
- Storm Outfall
- Unknown
- ← Aband
- Perf
- Plug
- Solid
- ▨ Detention Basin
- UIC Drainage Area
- KeizerGrid

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APPENDIX C

WPCF

City of Keizer, Oregon

ANNUAL REPORT

**PERMIT YEAR 2014 / 2015
STORMWATER NPDES PERMIT #102904**

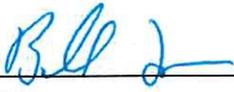


October 29, 2015

**Prepared by:
Environmental and Technical Division Staff
City of Keizer, Public Works Department**

**Certification Regarding the City of Keizer
NPDES Municipal Stormwater Annual Report 2014 / 2015**

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.



Bill Lawyer
Public Works Director
City of Keizer
930 Chemawa Rd NE
P.O. Box 21000
Keizer, OR 97307-1000



Table of Contents

Glossary

Executive Summary	1
Section 1 – Introduction	
1.1 Background	3
1.2 Annual Report Requirements	3
1.3 Responsible Personnel	4
1.4 Contents	5
Table 1.3 Responsible Personnel	4
Section 2 – Public Education / Outreach	
2.1 BMPs	7
2.2 Additional Activities for Report Year 2014/2015	
City of Keizer Public Services Fair	8
Kalapuya Elementary Outdoor School	8
Down By the Riverside	9
Mid-Willamette Outreach Group (MWOG)	9
2.3 Appropriateness of the BMP / Effectiveness	10
2.4 Future Activities Planned for 2014/2015	11
Table 2.1 BMP Overview	7
Figure 2.2.1 Kalapuya Elementary Outdoor School	8
Figure 2.2.2 Down By the Riverside	9
Figure 2.2.3 Howl-A-Palooza Flyer	10
Section 3 – Public Involvement	
3.1 BMPs	12
3.2 Additional Activities	13
3.3 Appropriateness of BMP / Effectiveness	13
3.4 Future Activities Planned for 2014/2015	13
Table 3.1 BMP Overview	12
Figure3.1 Alder Planting at Keizer Rapids Park	13
Section 4 – Illicit Discharge Detection and Elimination	
4.1 BMPs	14
4.2 Additional Activities for Report Year 2014/2015	15
IDDE Plan Revisions	15
Outfall Inspections	15
Develop Criteria for High Risk Areas	15

	Map High Risk Areas in GIS	16
	Private Facility Inspection and Inventory	16
	Spill Prevention and Response	16
4.3	Appropriateness of the BMP / Effectiveness	17
4.4	Future Activities Planned for 2014/2015	17
4.5	201/2014 Enforcement Actions	17
	Table 4.1 BMP Overview	14
	Figure 4.2.1 SARA Sites	15
Section 5 – Construction Site Stormwater Runoff Control		
5.1	BMPs	18
5.2	Additional Activities for Report Year 2014/2015	18
	Record Keeping and Plan Management	19
	Erosion Control Ordinance Revisions	19
5.3	Appropriateness of the BMP / Effectiveness	19
5.4	Future Activities Planned for 2014/2015	19
	Table 5.1 BMP Overview	18
Section 6 – Post-Construction Stormwater Runoff		
6.1	BMPs	20
6.2	Additional Activities for Report Year 2014/2015	20
6.3	Appropriateness of the BMP / Effectiveness	21
6.4	Future Activities Planned for 2014/2015	21
	Table 6.1 BMP Overview	20
Section 7 – Pollution Prevention in Municipal Operations (Good Housekeeping)		
7.1	BMPs	22
7.2	Additional Activities for Report Year 2014/2015	22
7.3	Appropriateness of the BMP / Effectiveness	23
7.4	Future Activities Planned for 2014/2015	24
	Table 7.1 BMP Overview	22
	Table 7.2 Video Inspection Statistics	23
Section 8 – Record-Keeping and Reporting		
8.1	BMPs	25
8.2	Additional Activities for Report Year 2014/2015	25
8.3	Appropriateness of the BMP / Effectiveness	26
8.4	Future Activities Planned for 2014/2015	26

Table 8.1	BMP Overview	25
Section 9 – Annexed area / Expansion of MS4		
9.1	Overview	27
Section 10 – Progress Towards Schedule B2(a)		
10.1	Summary	28
Section 11 – TMDL Implementation Plan		
11.1	Summary	29
11.2	Specific Activities	29
	Outreach Efforts	29
	Howl-a-Palooza	29
	ACWA Stormwater Summit Poster Session	30
	Guided Hikes Program	30
	Restoration Activities	31
11.3	2015/2016 Forecast	32
	 Figure 11.2.1 Inky Cleopuptra	 30
	Figure 11.2.2 Earth 411 Boat Tours	31
	Table TMDL Implementation Plan Matrix	

Attachments

- Appendix A – Outreach/Education Material
- Appendix B – Enforcement Action Log

ACRONYMS AND ABBREVIATIONS

ACWA	Association of Clean Water 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
EPSC	Erosion Prevention Sediment Control
EPA	Environmental Protection Agency
ESU	Equivalent Service Unit
ESA	Endangered Species Act
FTE	Full Time Equivalent
GIS	Geographic Information System
IDDE	Illicit Discharge Detection and Elimination
LID	Low Impact Development
MCM	Minimum Control Measure
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
ODOT	Oregon Department of Transportation
O & M	Operation & Maintenance
ORS	Oregon Revised Statutes
PE	Public Education
Permittee	City of Keizer
PI	Public Involvement and Participation
PY	Permit Year
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
VSF	Vegetated Stormwater Facility
WPCF	Water Pollution Control Facilities (permit)

Executive Summary

The City's National Pollutant Discharge Elimination System (NPDES) permit #102904 was issued in March 2007. The NPDES permit requirements are based on the federal Clean Water Act (33.U.S.C. §1342(p)), as amended, along with federal Environmental Protection Agency (EPA) regulations for municipal separate storm system (MS4) discharges. The permit authorizes the discharge of stormwater from all MS4 outfalls owned and operated by the City of Keizer.

According to the conditions of Schedule B(3) of the permit, the City submitted a permit renewal package to the Department of Environmental Quality (DEQ), 180 days prior to permit expiration on February 28, 2012. As is specified in the permit, the renewal package included a completed permit renewal application form, a completed and signed land use compatibility statement (LUCS), an updated (revised) Stormwater Management Plan (SWMP), and a benchmark model to address total maximum daily load (TMDL) wasteload allocations. A renewed permit has not yet been issued to the City.

The Environmental and Technical Division Manager is a committee member for the MS4 DEQ Advisory Committee for development of the new Phase II permit. This annual report reflects those activities that are being implemented from the original permit with the addition of BMPs that were referenced in the revised SWMP. Given the new permit will most likely require a revision of the revised SWMP, the City of Keizer will provide documentation in this and subsequent reports, that the program is moving forward in complying with permit #102904 until the new permit is issued.

Progress of Note for 2014/2015

Environmental staff pushed forward a revised Erosion Control Ordinance which was adopted by resolution by the Keizer City Council in December 2014. The new ordinance is disturbance based which allows the City to require a permit for projects that were not covered under the old ordinance. Furthermore, the new ordinance also provides more protection for local waterways by establishing a waterway buffer which triggers the requirement for a Construction Site Pollution Prevention Plan (CSPPP) and permit.

Environmental staff have been actively involved in plan review for new and re-development over the reporting period. This new role has resulted in promotion and implementation of post-construction practices in both public and private development. Staff has participated with the Technical Advisory Committee (TAC) that is reviewing the Western Oregon Low Impact Development Manual. The City intends to utilize that document as part of revised Design Standards.

The City's first annual report for the stormwater Water Pollution Control Facilities (WPCF) permit was submitted in December 2014. Under the Underground Injection Control Management Plan (UICMP), most of the internal operations plans and manuals were updated to include best management practices (BMPs) for both underground injection control (UIC) devices

and the MS4 with the goal of having more of an integrated stormwater program. Reviewing and updating these documents was highly beneficial in making sure the guidance outlined was streamlined, up-to-date, and implementable.

The City has formally started its private stormwater inventory program. The inventory program is intended to identify privately owned infrastructure in order to identify illegal connections, illicit discharges, and high risk properties. A total of 124 taxlots will be inventoried during the summer of 2015 that have either commercial or industrial uses. Staff anticipates it will take a minimum of 2 to 3 years to complete the citywide inventory. An annual inspection program is expected to be created after the inventory process is completed.

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 NPDES program. In 1990, the EPA developed regulations for stormwater discharges that were applicable to entities that own and operate 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, DEQ has been delegated authority from the EPA for the NPDES program.

As a result of the NPDES Phase II requirements, the City of Keizer established a citizen's Stormwater Task Force 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 original Stormwater Management Plan (SWMP) and a stormwater utility fee. The initial stormwater fee of \$2.70 per month has been increased several times and the City is currently following a long range financial plan.

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 MS4 Phase II permit for the City had been completed by the 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. In August 2011 the City of Keizer applied for a permit renewal. The original permit expired on February 28, 2012. Permit renewal is still pending.

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 Annual Report for year 2014/2015 for the City of Keizer.

The City of Keizer does not rely on other government entities to satisfy any of the permit obligations. While Keizer owns the sanitary sewer system within the City's UGB, the City of Salem provides maintenance and repair of that system through an Inter-governmental Agreement (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 the Salem Public Works Environmental Services group, or the Marion County Fire District. The City also has the option to utilize the State of Oregon Spill Response Contractor. The City of Keizer is a member of the Oregon Water/Wastewater Agency Response Network (ORWARN), and has an Inter-governmental Agreement (IGA) with the Oregon Department of Transportation (ODOT); a Public Works Cooperative Assistance Agreement.

1.3 Responsible Personnel

Table 1.3 – Responsible Personnel

<i>Key Personnel</i>	<i>Area of Responsibility</i>
Bill Lawyer , Public Works Director P.O. Box 21000 Keizer, OR 97307 (503)390-3700 lawyerb@keizer.org	Department Director Stormwater Budget Inter-Agency Lead Citywide Communication
Elizabeth Sagmiller , Environmental & Technical Division Manager P.O. Box 21000 Keizer, OR 97307 (503)856-3563 sagmillere@keizer.org	Management of Permitted Stormwater Programs Annual Reporting/Regulatory Reporting Operational Plan Development Maintenance/Repair Policy Development Recordkeeping Policy Development Education and Outreach GIS Management Inter-Agency Coordination Post-Construction in New and Re-development UIC Installation Policy UIC Decommission/Retrofits Policy
Kat LaFever , Senior Environmental Program Technician P.O. Box 21000 Keizer, OR 97307 (503)856-3526 lafever@keizer.org	Systemwide Assessment Monitoring Plan Data Analysis/Recordkeeping Stormwater GIS Management/Maintenance
Mike Griffin , Stormwater Operations & Streets Division Manager P.O. Box 21000 Keizer, OR 97307 (503)856-3551 griffinm@keizer.org	Implementation of Operations and Maintenance Plan Implementation of Good Housekeeping Plan Implementation of Spill Response Field Manual Implementation of Illicit Discharge and Detection Plan Stormwater System Repairs and prioritization Field Investigation and Response (IDDE, Spills) UIC Maintenance and Management
Matt Reyes , Public Works Project Manager P.O. Box 21000 Keizer, OR 97307 (503)856-3558 reyesm@keizer.org	Project Management for Large Scale Development

1.4 Contents

Sections 2 through 7 of this report will cover the individual progress and specifications of adherence to the six minimum control measures required through the SWMP, including the Schedule B(2) permit requirements. 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

Each of the referenced sections will include reporting on the City's suite of BMPs for the overall stormwater program.

Section 8 of the document covers the record-keeping and reporting efforts undertaken by staff for 2014/2015. Section 9 covers 2014/2015 annexations and expansion of the MS4, and Section 10 addresses progress toward meeting the conditions of Schedule B2(a) of the NPDES permit. Section 11 covers the activities associated with the TMDL Implementation Plan. Due to the delay with reissuance of the Keizer's Phase II permit, the TMDL Implementation Plan will be updated to include the most current conditions when the new permit is issued.

Section 2 – Public Education / Outreach

2.1 BMPs

- PE-1 Develop a Public Education Plan that addresses regional stormwater issues. Utilize the Mid-Willamette Outreach Group (MWOG) to develop products.
- PE-2 Utilize a statistical method to assess public awareness of stormwater issues
- PE-3 Utilize the annual consumer confidence report (CCR) to inform the public about stormwater related issues
- PE-4 Update the City’s website
- PE-5 Provide support to the Claggett Creek Watershed Council

Table 2.1 – BMP Overview

BMP	Activity	Action	Measureable Goal Met Y/N	Results
PE-1*	1. Develop a Public Education Plan that addresses regional stormwater issues. 2. Utilize MWOG to develop outreach products	Develop a plan that refines the focus for outreach on specific audiences with key messages Participate in at least 8 meetings and host 2 events	Y Y	A draft Public Education Plan has been developed Howl-A-Palooza was held on 10/4/1014 and the Erosion Control Summit was held on 1/27/15
PE-2	Utilize a statistical method to assess public awareness of stormwater issues	This BMP was added to the first revision of the SWMP with the permit renewal package.	N	This BMP was not to be implemented until late in the permit term
PE-3	Utilize the annual consumer confidence report (CCR) to inform the public about stormwater related issues	The drinking water CCR is used as a mechanism to reach a large range of residents in Keizer.	Y	CCR was sent to 16,311 addresses the week of 5/25/15. Contents included updates on the erosion control program, proper management of fall leaves, and private stormwater facility inspections.

PE-4	Update the City’s website		Y	The City’s website was updated in 2014/2015. All stormwater related information was transferred to the new site. The Environmental Division section needs to be refined
PE-5	Provide support to the Claggett Creek Watershed Council	Attend meetings and activities	Y	Attended 4 meetings and 4 events.

* Adaptive Management was applied to this BMP, and approved by DEQ in 2014/2015

2.2 Additional Activities for Report Year 2014/2015

See Section 11 for more outreach activities. Outreach materials are provided in Attachment A

City of Keizer Public Services Fair The Environmental Division staff created a poster with original content about Keizer’s 3 main methods of stormwater management. Staff used the poster in conjunction with the VacCon truck display to allow participants to see ways that stormwater is managed within Keizer. Staff also handed out 27 copies of the 2013 general stormwater brochure and 70 Howl-A-Palooza ‘Save the Date’

Kalapuya Elementary Outdoor School

On May 27, 2015 Keizer Environmental staff partnered with Marion County and the City of Salem for physical chemical tests (temperature, nitrate, phosphate, pH) to determine suitability for Coho Salmon spawning and rearing at Canyonview Camp. 55 4th grade students participated. See Figure 2.2.1

Figure 2.2.1 – Kalapuya Elementary Outdoor School



Down By the Riverside

Down By the Riverside is an annual event for Keizer's Forest Ridge Elementary School. The event was held on May 30, 2015 at Willamette Mission Park. Environmental staff taught stream dynamics to approximately 50 elementary school students. Other topics included erosion/sedimentation, watersheds, and groundwater. See Fig 2.2.2

Figure 2.2.2 Down by the Riverside

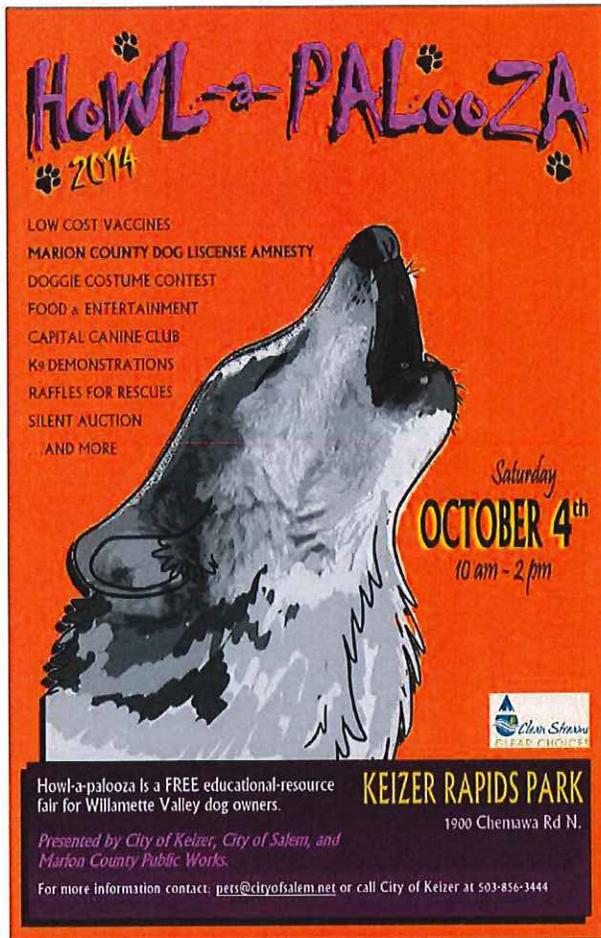


Mid-Willamette Outreach Group (MWOOG)

The Mid-Willamette Outreach Group (MWOOG) first began meeting in 2011 with the intent of providing consistent stormwater related messages throughout the Mid-Willamette Valley. At present the group includes the City of Keizer, the City of Salem, Marion County, the Marion Soil and Water Conservation District, the City of Albany, and the City of Corvallis. The group met 9 times in 2014/2015 and hosted the 2 events described below.

Howl-A-Palooza – The 3rd annual Howl-A-Palooza was held on October 4, 2014 at Keizer Rapids Park. The hosts for this event are Marion County, the City of Salem, and the City of Keizer. Event attendance was estimated at approximately 400. The event again included a Marion County dog license amnesty. Vendors, veterinarians, rescue groups, and non-profit groups were a part of the event. Brochures were handed out to participants which included information on the Capital Canine Club (CCC) and promotion of picking up pet waste. (See outreach material in Appendix A) The “Clean Streams, Clear Choices” logo was placed on signs, posters, and other outreach material for the event. The event also included a Capital Canine Club booth where participants take pledges to always pick up after their pet. See Figure 2.2.3

Fig 2.2.3 – Howl-A-Palooza Flyer



Erosion Control Summit – The Erosion Control Summit was held on January 27, 2015. This was the 3rd annual event hosted by MWOOG and held at the Keizer Civic Center. There were approximately 120 attendees and feedback from the event shows that participants view the summit as a valuable experience. Speakers included staff from DEQ, Clean Water Services, the City of Salem, Green Girl, and Sound Earth Strategies. The agenda for the 2015 event is included in Appendix A. The 2016 event will be held on January 26, 2016.

2.3 Appropriateness of the BMP / Effectiveness

PE-1 Development of the Public Education Plan will provide staff a clear path forward for future educational activities. This BMP is appropriate and effective.

The MWOOG group is becoming more efficient and the activities more focused over time. This portion of the BMP is appropriate and effective.

- PE-2** Based on the outcome of the Phase II permit, this BMP may need to be revised.
- PE-3** Utilizing the City's CCR continues to be an efficient way to reach the largest number of households annually with stormwater related information. This BMP is appropriate and effective
- PE-4** Redesign of the City's website will allow Environmental staff to evaluate content for stormwater and environmental issues. This BMP is appropriate and effective.
- PE-5** Environmental staff continue to participate in Claggett Creek Watershed Council (CCWC) meetings and activities. The Council has seen some growth over the past month and hopefully the trend will continue. This BMP is appropriate.

2.4 Future Activities Planned for 2015/2016

- PE-1** There are no new activities planned for this BMP at this time
- PE-2** There are no new activities planned for this BMP at this time
- PE-3** There are no new activities planned for this BMP at this time
- PE-4** There are no new activities planned for this BMP at this time
- PE -5** There are no new activities planned for this BMP at this time

Section 3 – Public Involvement

3.1 BMPs

- PI-1** Develop Stormwater Program Evaluation Methodology
Utilize the Stormwater Advisory Committee (SWAC) for Program Review and Adaptive Management
- PI-2** Install 125 – 150 Storm Drain Markers Annually
- PI-3** Utilize Community Groups and/or Volunteers to maintain restoration Sites

Table 3.1 – BMP Overview

BMP	Activity	Action	Measureable Goal Met Y/N	Results
PI-1	Develop stormwater program evaluation methodology	BMPs will be evaluated by 1. <u>program implementation</u> , 2. <u>information collected</u> , 3. <u>evaluation</u> , and 4. <u>needs identification</u> . SWAC to review annually	Y	All BMPs were evaluated. Result reviewed and changes approved by SWAC in July 2015
PI-2	Install catch basin markers	Utilize community groups to install catch basin markers	Y	Keizer Young Life installed 97 Chemeketa Community College 42 Chemeketa Community College 80 Total 219
PI-3	Utilize community groups to maintain restoration sites		Y	2 Events 3/20/15 16 alder trees planted at Keizer Rapids Park 5/9/15 volunteers removed Scotch Broom, Blackberry, and Ivy at Keizer Rapids Park (See Fig 3.1)

Fig 3.1 Alder Planting at Keizer Rapids Park

3.2 Additional Activities for Report Year 2014/2015

There are no additional activities for Public Involvement to report for this year.

3.3 Appropriateness of the BMP / Effectiveness

PI-1 This BMP is appropriate and effective. Using the methodology categories allowed staff to specifically identify tasks that weren't working or needed to be changed. The at-a-glance type format allows for quick identification of BMPs that need to be changed.

PI-2 The City will need to determine if this activity is useful and effective. While the markers are useful for identification purposes, there has been no determination made as to if they deter illegal dumping.

PI-3 The only restoration work that has occurred in recent years is at Keizer Rapids Park. Staff have determined that a restoration master plan needs to be developed before justifiable work can occur for this BMP. The BMP needs to be rewritten.

3.4 Future Activities Planned for 2014/2015

PI-1 Staff will continue implementation using the method described in this section to evaluate program effectiveness.

PI-2 Staff anticipates that catch basin marking will continue in 2015/2016.

PI-3 Annual invasive removal will likely occur at Keizer Rapids Park in 2015/2016. Staff will look to development of a restoration master plan in subsequent years.

Section 4 – *Illicit Discharge Detection and Elimination*

4.1 BMPs

- ID-1 Revise the IDDE Plan
Conduct Annual Training
- ID-2 Develop Criteria for High Risk Areas
- ID-3 Link Information to GIS and Annually Update
- ID-4 Develop an Inspection and Inventory Plan for Privately Owned Stormwater Facilities
- ID-5 Analyze Inspection Data and Develop a Management Strategy

Table 4.1 – BMP Overview

BMP	Activity	Action	Measureable Goal Met Y/N	Results
ID-1	Revise the original IDDE Plan	Task Completed in 2013/2014	Y	Implementation of the new plan
	Conduct annual training	IDDE/Spill Response	Y	21 employees Training on 5/20/15
ID-2	Develop criteria for high risk areas		Y	See discussion in Subsection 4.2
ID-3	Link to GIS	Developed High Risk Tool Set	Y	Complete – compiled data will need infrequent maintenance
ID-4	Develop inspection and inventory plan	Inventory is expected to take several years	Y	Plan developed and inventory started
ID-5	Analyze inspection data and develop management strategy		N/A	Management strategy is not expected to occur until all inventory information has been collected

4.2 Additional Activities for Report Year 2014/15

IDDE Plan Revisions

The IDDE Plan was revised in 2013/2014. The Stormwater Operations and Streets Division Manager is responsible for implementation of the plan.

Training: Training occurred on 5/20/2015 for 21 Public Works employees. The group discussed key points of the plan. Spill Response training was included.

Outfall Inspections

Outfall inspections have been conducted annually since 2008. Over the last 2 years the routine work was completed during the summer months, but during one year the inspections were actually completed twice in the same fiscal year. The City has adopted protocol that outfalls will only be inspected after July 1st to avoid this confusion. Outfalls were inspected after the end of the fiscal year and totals will therefore be reported in the 2015/2016 annual report.

The Stormwater Operations and Streets Division Manager will be responsible for managing this activity in its entirety in subsequent years.

Develop Criteria for High Risk Areas

As it applies to ID-2, criteria has been established to help identify areas which may be prone to IDDE incidents. These include land use type, past history of IDDE incidents, hazardous material storage or use (SARA site locations from Keizer Fire Department database), and traffic levels. SARA site locations are noted in Figure 4.2.1

Fig. 4.2.1 SARA Sites

STATE FIRE MARSHAL REPORT 1 - LOCAL FACILITIES

THIS REPORT LISTS ALL FACILITIES SURVEYED IN YOUR LOCAL AREA

NO = NO HAZARDOUS SUBSTANCES PRESENT
YES = HAZARDOUS SUBSTANCES PRESENT

KEIZER FIRE DIST			
<u>Facility Name</u>	<u>Location Address</u>	<u>City</u>	<u>Facility ID No.</u>
PRECAST INC	1302 CANDLEWOOD DR N	KEIZER	073445
.ITY	5390 N RIVER RD	SALEM	117969
.ITY	3600 RIVER RD N	KEIZER	090558
.ITY	6494 WINDSOR ISLAND RD	KEIZER	090559
	4080 RIVER RD N	KEIZER	103058
RPORATION	3862 RIVER RD N	KEIZER	081635
	2715 TEPPER LN NE	KEIZER	020628

Map High Risk Areas in GIS

This BMP has expanded and shifted slightly from last year. A GIS project was established and data is accessed to evaluate ongoing risk. Compiled data in the GIS project will need infrequent maintenance to remain current.

Private Facility Inspection and Inventory

A general scan was conducted using visual observations and assessment of land use data via GIS, to identify all taxlots that are likely to have a connection to Keizer's MS4. The taxlots collected were categorized based on land use. These categories were used to develop an inspection and inventory schedule over the next several years

A field Standard Operation Procedures (SOP) document was developed and site maps were created to assist in the inspection effort. A notice to property owners was created and sent to the first year property owners in late spring 2015.

Inspection work began in June 2015. The project includes desktop management and processing of field data. (See BMP RR-2 in Section 8) A letter requesting plans has been created and will be sent to property owners for taxlots for which the system design could not be identified in the field.

Spill Prevention and Response

The Spill Prevention and Response program was developed in 2013/2014. Training has occurred for field staff in conjunction with IDDE training. See Table 4.1

Although the program has been developed, staff continues to receive ongoing reporting and coordination benefits. These include monthly IDDE reporting From Keizer Fire District #1 and active reporting and coordination with Keizer Police Department on calls involving spills or IDDE issues. During the reporting period, 84 spill-related incidents have been reported from September 2014 through June 2015. Due to staff efforts, the Public Works Department now has new advocates within these coordinating agencies who are more familiar with stormwater issues related to spills, and promoting the importance of spill reporting.

See Appendix B for IDDE Reporting Summary Table, and the Incident Reporting Table.

4.3 Appropriateness of the BMP / Effectiveness

ID-1 The original ordinance developed in 2009 has been a useful document. No changes are needed in the immediate future unless required under the new permit.

ID-2 The revised IDDE Plan is up-to-date and in a new format that is more user friendly.

ID-3 Because integration of new stormwater requirements have been difficult for Stormwater staff, annual training needs to occur on IDDE issues, reporting, and spill response.

ID-4 Implementation of the plan is ongoing. Some portions of the initial plan have been effectively implemented during the permit term.

4.4 Future Activities Planned for 2014/2015

ID-3 Maintenance personnel will need to continue training on the implementation of the revised IDDE Plan and spill response

ID-4 Complete implementation of the revised plan should be documented by Stormwater personnel

Staff anticipates implementing the private facility inspection and inventory program as described in subsection 4.2 above.

4.5 2014/2015 Enforcement Actions An accounting of enforcement actions are included in Attachment B. The format for this table is slightly different from previous years. Because the City of Keizer has a number of hybrid UICs (those which infiltrate stormwater, but may connect to a solid pipe system, we have included response to activities that pose a threat to both the MS4 and UICs.

Section 5 – Construction Site Stormwater Runoff Control

5.1 BMPs

- CS-1 Conduct Erosion Control Training for Public Works Personnel
- CS-2 Develop and Maintain an inventory of Active Construction Sites that Require a Construction Site Pollution Prevention Plan (CSPPP)
- CS-3 Revise the CSPPP and Erosion Control Ordinance
- CS-4 Develop a Separate Hotline for Erosion Control Complaints from the Public

Table 5.1 – BMP Overview

BMP	Activity	Action	Measureable Goal Met Y/N	Results
CS-1	Conduct erosion control training for Public Works personnel	This training included a brief overview of a typical site and applicable BMPs. Also a review of internal plans	Y	16 employees participated. Training held on 6/1/15
CS-2	Develop and maintain an inventory of active CSPPP sites		Y	For 2014/2015 the City had 22 new CSPPP permits
CS-3	Revise the CSPPP and erosion control ordinance		Y	The ordinance was adopted by City Council on 12/1/14. Forms were simplified and are available online
CS-4	Develop a separate hotline for erosion control complaints		Y	The City has an after-hours phone system which allows the caller to choose an option for streets/stormwater issues. A separate hotline has not been developed

5.2 Additional Activities for Report Year 2014/2015

The City’s lead inspector provided the bulk of the training for Public Works personnel. In addition to the training held on 6/1/15, 7 Public Works employees attended the Erosion Control and Stormwater Management Summit hosted by the MWOG group in January 2015.

Record-Keeping and Plan Management

All new and existing CSPPPs are spatially managed through an ArcMap shapefile which shows the location and status of each permit. All CSPPPs are also managed through an excel spreadsheet and kept up to date with inspection information and status updates.

The City has provided DEQ full documentation of all components of the erosion control program and is seeking inclusion in the 1200-CN permit.

Erosion Control Ordinance Revisions

Environmental staff have made revisions to the Erosion Control Ordinance. Those revisions were approved by City Council on December 1, 2014. All City of Keizer projects that disturb over 2000 sq ft are required to have an internal CSPPP developed and implemented. In addition, projects that disturb over 200 sq ft that are adjacent to a waterway must have a CSPPP.

5.3 Appropriateness of the BMP / Effectiveness

CS-1 Annual training for Public Works employees is appropriate.

CS-2 Maintaining an inventory of active CSPPP sites is appropriate and useful.

CS-3 Revision of the erosion control ordinance and associated CSPPP was appropriate and will result in protecting water quality.

CS-4 As was reported last year, the City currently uses a telephone system that allows the public to reach Public Works personnel 24 hours a day. The hotline referenced in BMP CS-4 has not yet been developed. Because of lean staffing resources it is difficult to determine if a hotline would actually make a difference in the response time for City staff. As was noted in last year's report, it may be premature for the City to have a separate hotline at this time. The Spill Response Plan and associated manual has a matrix for staff to utilize in the event of a non-routine event. Furthermore, staff is working with support agencies to make certain that Public Works personnel are contacted in the event of an emergency.

5.4 Future Activities Planned for 2014/2015

CS-1 Annual training is expected to continue for Public Works personnel.

CS-2 No changes are anticipated for this BMP

CS-3 No changes are anticipated for this BMP

CS-4 No changes are anticipated for this BMP

Section 6 – Post-Construction Stormwater Runoff

6.1 BMPs

DS-1 Revise Design Standards and Development Code

DS-2 Implement the Revised Water Quality Standards for New and Re-development
Conduct Plan Reviews, Inspections, and Enforcement

DS-3 Conduct Annual Training for Program Components for Public Works Personnel

Table 6.1 – BMP Overview

BMP	Activity	Action	Measureable Goal Met Y/N	Results
DS-1	Develop ordinance to control runoff from new and re-development		Y	Existing Design Standards have applicable language, but the standards need to be revised
DS-2	Implement the Revised Water Quality Standards for New and Re-development		No	Revised standards were not completed in 2014/2015
	Conduct plan reviews, inspections, and enforcement for new development		Y	Plan review is ongoing. New procedures need to be developed
DS-3	Conduct annual training for program components for Public Works Personnel		Y/N	Some employees have had some limited applicable training

6.2 Additional Activities for Report Year 2014/2015

The City of Keizer has not yet developed a comprehensive post-construction program. The existing Design Standards were adopted by City Council resolution and include references to Clean Water Services standards as well as Portland Bureau of Environmental Services. These references, and the ability of the Public Works Director to impose such requirements, has resulted in a substantial increase in the installation of low impact development elements into subdivision sized projects as well as commercial and retail projects.

The City of Keizer is actively moving forward with implementing suitable Design Standards that will address post-construction standards. Environmental staff resources are limited and developing such standards in-house is a daunting task at best. As such the Environmental Staff has actively participated with the Oregon Environmental Council (OEC) on their Low Impact Development Guide for Western Oregon. The project includes a TAC that is reviewing and

moving the project forward. As long as the project stays on schedule, staff hopes to refine the document to make it suitable for adoption by the City of Keizer City Council.

Environmental staff have worked to develop a sizing calculator for vegetated stormwater facility design. This includes compiling rain gauge data and projecting a possible design storm size as it relates to the capture and treatment of stormwater in a range of percentages (e.g. 2 year storm captures ~>90%)

Funds have been budgeted to hire engineering services to finalize standards 2015/2016, but this is a large task and is expected to take substantial time to complete.

6.3 Appropriateness of the BMP / Effectiveness

DS-1 The BMP as written is appropriate and effective

DS-2 The BMP as written is appropriate and effective

DS-3 The BMP as written is appropriate and effective

6.4 Future Activities Planned for 2014/2015

DS-1 The City will continue to look to the Low Impact Development Guide for Western Oregon as the starting place for addressing Design Standards and revised Development Code. Development of the new Phase II permit will be a driver for how requirements are designed.

DS-2 No additional future activities are planned for this BMP.

DS-3 Currently most VSFs within the City are being maintained through contracted services. Environmental staff are continuing to gain and apply their knowledge obtained through experience and training opportunities.

Section 7 – Pollution Prevention in Municipal Operations (Good Housekeeping)

7.1 BMPs

OM-1 Utilize Public Works Personnel to Review Existing O & M Manual (a.k.a Good Housekeeping Manual)

OM-2 Inspect 10% of the MS4 Annually (Contracted Activity)

OM-3 Conduct Employee Training

OM-4 Implement the Catchbasin Inspection Program

OM-5 Conduct Street Sweeping

Table 7.1 – BMP Overview

BMP	Activity	Action	Measureable Goal Met Y/N	Results
OM-1	Utilize Public Works personnel to review existing O & M Manual	Revise the manual that was developed in 2011	Y	Complete. The manual was revised in 2014
OM-2	Video Inspection of Stormwater System	Contracted inspection with a goal of 10% of the system annually	Y / 9.5% of the system was inspected	32,818.4 ft of MS4 pipes were cleaned and video inspected. 3800 cu yds of material was removed
OM-3	Conduct employee training		Y	16 employees attended O & M training on 6/1/15
OM-4	Catch basin inspection program	Inspect structures, clean and develop a repair list	Y	298 catch basins were cleaned in 2014 and 81 manholes cleaned 33 catch basins were repaired. 2099 catch basins were inspected in June 2015 and 327 manholes were inspected.
OM-5	Street Sweeping	This is a contracted activity	Y	1644 cubic yards of material was removed through street sweeping

7.2 Additional Activities for Report Year 2014/2015

OM-1 The Good Housekeeping Manual was updated in Spring 2014 and now contains pertinent UIC information. The manual includes a regulatory overview, inspection and maintenance

protocol, structure design and function, record keeping and adaptive management, as well as a section on roles and responsibilities.

OM-2 The annual budget for the video inspection BMP has increased from \$54,000 in FY 12/13 to \$90,000 in FY 14/15. (See Table 7.1) While the City is striving to meet the 10% annual goal, reaching that goal is not an exact task. Costs vary based on the amount of debris in the lines (cleaning is done through the contractor). In addition the cost of traffic control is variable. Despite coming just short of reaching the goal for this year, the high volume of debris that is being removed from the system is noteworthy.

Table 7.2 – Video Inspection Statistics

TOTAL 2014/15 TV Statistics		
Total Spent	\$88,442.40	98.3% of budgeted funds
Total TV/Cleaned Footage	32818.4	9.5% of MS4
Overall Cost/Foot	\$2.69	Cost Range \$2.08-3.12

Breakdown by Contract Activity	Total Cost	Ave Cost/Ft
Base Cleaning and TV Work	\$61,890.39	\$1.89
Hydrojet (Heavy Cleaning)	\$6,757.50	\$0.21
TV Standby	\$6,200.00	\$0.19
Total 'Extra Cleaning Costs' (Hydro + TV Standby)	\$12,957.50	\$0.39
Dumping Costs	\$6,745.00	\$0.21
Traffic Control	\$6,849.51	\$0.21

7.3 Appropriateness of the BMP / Effectiveness

OM-1 The revision of the Good Housekeeping Manual was appropriate. Consistent training will hopefully result in increased usage by Public Works personnel.

OM-2 This BMP is appropriate and effective. Because contract costs for inspection and associated cleaning work vary based on pipe diameter, amount of cleaning required, dump fees, and traffic control it is difficult to estimate the amount of contractual dollars needed each year to reach the 10% goal.

OM-3 Employee training is effective and appropriate.

OM-4 This BMP is effective and appropriate.

OM-5 This BMP is effective and appropriate.

Quarterly Removal Totals – Annual Comparisons

	2012/2013	2013/2014	2014/2015
July-Sept	108	159	236
Oct-Dec	598	921	962
Jan-Mar	163	313	220
April-June	179	252	226
Total	1048	1645	1644

7.4 Future Activities Planned for 2014/2015

BMP OM-1 Maintenance personnel need to utilize the Good Housekeeping Manual and reference when and how it is used

BMP OM-2 No changes are anticipated for this BMP. The City has budgeted \$90,000 for the service in 2015/2016

BMP OM-3 Maintenance personnel need to have regular training that applies directly to the Good Housekeeping Manual

BMP OM-4 Maintenance personnel will be recording and implementing the activities for this BMP in subsequent years

BMP OM-5 City staff will continue to collect quarterly removal totals

Section 8 – Record-Keeping and Reporting

8.1 BMPs

RR-1 Develop an Electronic Stormwater Database (ArcGIS) to Specifically Identify Assets in Order to Track Stormwater Program Elements Including Repair and Maintenance Activity

RR-2 Maintain Spatial Information for Private Stormwater Infrastructure. Add Spatial Information for SWMP Program Elements

Table 8.1 – BMP Overview

BMP	Activity	Action	Measureable Goal Met Y/N	Results
RR-1	Develop an electronic stormwater database (ArcGIS)		Y	This work is underway
RR-2	Maintain spatial information for private stormwater infrastructure.		Y	All known private connections and structures are now catalogued using the a specific code

8.2 Additional Activities for Report Year 2014/2015

Environmental staff continue to refine recordkeeping efforts for the Division. Ongoing GIS management accomplishment are too numerous to list, but an example of the applicable activities are noted in this subsection. The list below captures only a portion of the numerous data management and record-keeping activities undertaken by staff in 2014/2015:

- Outfall inspection results updated
- Grid maps updated on a quarterly basis
- Erosion control permits and status displayed in ArcMap
- Public and private water well data updated in GIS
- Marion County updates included in the system
- City of Salem updates included in the system
- Archived document file added to the Stormwater Drive and index developed
- Infrastructure corrections updated in the GIS system
- Repair work inventoried and prioritized to include backlog work
- Private inspection project has been added to GIS
- Assets have been reviewed to determine ownership (public or private) and maintenance responsibilities (public or private)

Annual reporting for the TMDL Implementation Plan is integrated with the NPDES Annual Report. The City's WPCF permit specifies that the annual report for that program will be due no

later than December 31st of each report year. The City hopes to integrate the 3 programs at some point in the future.

8.3 Appropriateness of the BMP / Effectiveness

RR-1 This BMP is appropriate and effective.

RR-2 This BMP is appropriate and effective.

8.4 Future Activities Planned for 2014/2015

The Environmental and Stormwater Divisions anticipate continuing the private facility inventory and inspection program as described in subsection 4.2. This activity will require adding and correcting information in the GIS system.

Section 9 – *Annexed Area / Expansion of the MS4*

9.1 Overview

The City added approximately 2926 feet of new publicly owned MS4 to the existing stormwater system during 2014/2015. As was noted in last year's report, the City has installed hybrid type systems more frequently in recent years. These portions of the MS4 are generally horizontal perforated pipe that have a connection to the primary system. Some infiltration occurs, but they overflow to the solid pipe MS4 and discharge to local waterways.

No annexation occurred in 2014/2015.

No major annexations are expected in the upcoming report year, but the City is expecting a large expansion in the next 2 to 3 years.

Section 10 – Progress Toward Schedule B2(a)

10.1 Summary

Schedule B2(a) of the NPDES permit states that the permittee must submit an annual report to the Department [DEQ] 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.

As was discussed in Section 6, the City does not have a comprehensive post-construction program in place, but the City has been very successful in requiring these elements from private developers while also installing similar publicly owned features. In 2012/2013 the City initiated a project to install vegetated stormwater facilities along 1.5 miles of Chemawa Rd. N. in Keizer. The project was completed in 2014/2015. During the report year, 5 subdivisions were developed using publically owned UICs or hybrid systems that include perforated pipe with an overflow to the MS4. All commercial and large scale development are using elements of LID.

Environmental staff have also continued to expand the public education program for the City. In addition to the successes listed in Section 3, staff is continuing to look for opportunities to expand efforts and refine the overall program. A watershed/nonpoint source model was purchased by the Public Works Department which has proven to be a useful tool in the classroom or at educational fairs. Staff is also exploring the concept of co-hosting a regional water fair with MWOG partners. The group will look continue to look for opportunities to partner on projects on a regional basis.

The City’s erosion control program has continued to be refined over the past year. The revised erosion control ordinance was adopted by resolution through Keizer City Council in December 2014. The revised ordinance provides more protection for waterways and refines the disturbance language.

The City has been proactive in developing spill prevention and response measures that provide for a quick and effective response to accidents that may impact the stormwater system. Utilizing the state spill contractor for emergencies and coordinating with support agencies will serve the City well in its efforts to provide water quality protection.

The Environmental and Technical Division Manager has been involved as part of the DEQ Phase II Steering Committee in 2014/2015. Although a clear path forward has not yet been determined, progress is being made. The City looks forward to having a new permit that will allow for movement forward in water quality protection.

Section 11 – TMDL Implementation Plan

11.1 Summary

The purpose of Section 11 of this document is to provide an overview of those activities that were not conducted under the NPDES Permit but are related to the TMDL Implementation Plan. The purpose of this format is to make annual review of specific TMDL activities a more streamlined process.

The Environmental and Technical Division Program Manager is currently involved with the DEQ Advisory Committee for development of the new Phase II permit. Although the committee has been given draft language for the proposed General Permit, the path forward is unclear at this time. Staff noted in the 2013/2014 report that the BMPs in the Implementation Plan would need to change when the new Phase II permit is issued and that factor remains in place.

11.2 Specific Activities

Outreach Efforts

The many of the outreach efforts and projects are described in Section 3 of this document. Environmental staff have made good progress in developing the overall outreach program over the past year.

Staff began drafting a Public Education Plan (PEP) during the past year that document is being developed to fine-tune activities. MWOG will play an important role in the activities and audiences for this new effort for public education.

Staffing changes toward the end of the report year will hopefully result in new activities and efforts for 2015/2016.

Howl-a-Palooza

The TMDL Implementation Plan calls for promotion of the Capital Canine Club (CCC). A portion of this BMP is accomplished through the annual Howl-a-Palooza event. Howl-A-Palooza was held at Keizer Rapids Park on October 5, 2014. Attendance was estimated to be around 400. In addition to the CCC booth where pledges and pictures were collected, staff provided direct outreach to kids through a relay game called the “Poop Scoopin’ Boogie” Members of the CCC are highlighted on the City of Salem website at: <http://www.cityofsalem.net/canineclub>

This event is hosted by Marion County, the City of Keizer, and the City of Salem. These agencies represent a portion of the MWOG group. The event includes a dog license amnesty in order to bring out a wide variety of community residents. Emphasis is placed on healthy pets and healthy communities to tie responsible pet ownership to the environment. It also includes a family friendly atmosphere to attract more participants. The highlight of the event is the costume contest. See Figure 11.2.1

Howl-A-Palooza is growing in popularity each year. The event was held in Keizer in October 2014. The event was held in Keizer again on October 3, 2015.

Fig 11.2.1 – Inky ‘Cleopuptra’



ACWA Stormwater Summit Poster Session

The City of Keizer took the lead in developing a poster related to the regional outreach program (MWOG) at the ACWA Stormwater Summit in May 2015. The poster shows how the group was formed, goals, participating partners, and lessons learned. The poster is being rotated among participating agencies to help educate inter-agency personnel about the group and its activities. A copy of the poster is included in Appendix A.

Guided Hikes Program

The guided hikes program continues to be popular within the education community. In 2014/2015 staff participated in more regional activities than have been conducted in the past.

July 1, 8 and 15 of 2014 – Between 100 and 120 children from the Salem Boys and Girls Club participated on a series of nature walks to highlight the interactions between the natural and human-based element in the urban environment. The activity included observing outfalls, bridges, and development along Mill Creek in Salem, OR. Topic included stormwater, water quality, urban runoff, riparian zone, salmon life cycle and needs, invasive/native plants, and seed dispersal.

October 7, 2014 – 25 students from Forest Ridge elementary School participated on a hike at Keizer Rapids Park in Keizer. Topic included native/invasive vegetation, habitat, erosion, “Leave No Trace”, and general environmental stewardship.

April 11, 2015 – 20 boat tours for 103 people at Earth 411 in Salem, OR. This activity was a partnership with the City and the Claggett Creek Watershed Council. Staff developed materials, route, and talking points for participation as a tour guide for the Willamette Slough. Topics covered the dynamics of erosion, flooding, wildlife, industrial history, needs of aquatic wildlife, and water quality (temperature, turbidity, bacteria, heavy metals, and petroleum products. See Figure 11.2.2

Fig 11.2.2 Earth 411 Boat Tours



Restoration Activities

The following was included in the 2013/2014 Annual Report:

The City has struggled with maintaining existing restoration sites and finding volunteers to assist with these activities. In 2013/2014 staff decided that no new restoration projects would be implemented until the City has developed a Restoration Master Plan. Staff feels it makes little sense to develop projects we aren't able to take care of.

Looking to the future, staff has developed some concepts that may dovetail with a Master Plan

- *Public Projects: Any project that is on City owned land will require a long term commitment.*
 - *The first 3-5 years this project will be evaluated and maintained on an elevated schedule, 2-3 times a year to ensure early plant establishment and success.*

- *The project will continue to be evaluated once a year with minimal maintenance as needed following the initial establishment window.*
- *Private Projects: Any project that is privately owned should have an established time frame for City involvement.*
 - *The City can provide technical resources and guidance but should not be accountable for the long term success of the project.*
- *Educational Programs: As the City progresses in the future educational resources can be provided to stream side property owners to encourage them to enhance their own stretch of stream bank. This will likely include initial contact, technical and resource assistance, and a couple short rounds of project “follow-up” to document activity.*

The City of Keizer made little progress in 2014/2015 although the Claggett Creek Watershed Council planted 16 alder trees at Keizer Rapids Park on March 20, 2015 and conducted invasive weed removal at Keizer Rapids Park on May 9, 2015.

There was a staffing change in the Public Works Department in August of 2015. The new Environmental Program Technician has a strong background in riparian projects and the City has every hope that this individual will help jump start restoration efforts within the City.

2015/2016 Forecast

2014/2015 was a year with a focus on implementing existing programs and evaluating what might need to change in the future. This has been difficult with the MS4 Phase II permit in limbo. If DEQ finalizes the permit in the anticipated timeline, there will be changes and perhaps a new focus that will provide a more well-defined path forward. City staff will stay closely involved with the renewal process for the remainder of fiscal year 2015/2016.

The TMDL Matrix follows this section.

TMDL IMPLEMENTATION PLAN MATRIX

TMDL Implementation Plan Matrix – Report Year 2014/2015

Pollutant: Bacteria		(Six Minimum Control Measures Listed at the End of Each Table)									
BMP	Source	Strategy	How	Fiscal Analysis	Measure	Timeline	Milestone	Status			
Shaded BMPs are included in the STMP	What source of this pollutant is being addressed?	What is being done, or what will be done to reduce or control pollution from the source?	Specifically, how will this be done?		How will successful implementation or completion of this strategy be measured?	When will the strategy be completed?	What intermediate goals will be achieved and by when to know what progress is being made?		For the purpose of the draft Second Matrix, the 'Status' column provides clarification for each BMP. Once approved by DEQ, the Status column will be used for yearly progress details.		
PE	1. Bacteria carried to waterways in storm runoff and piped system	a. Prevent domestic animal waste from reaching waterway	i. Stormwater booth at Public Works Week open house or Public Service Fair ii. Expand 'doggie' bag program in local parks and high pedestrian areas iii. Promote Capital Canine Club for Clean Streams (CCC)	Shared funding with MWOG agencies, Promotional items Unknown. The first project will be fully funded by the Eagle Scout Shared funding for promotional items Staff time	Utilize CCC to document willingness to adopt new behavior Installation of new stations and monitor bags Track pledges and continue to expand program. Number of attendees. Track annual progress and information gathered	Annually Annually Annually 2016	Track pledges and event participants Working with scout troops to design new bag stations Participate in 1 regional event per year (such as Howl-a-Palooza) Planning efforts to commence in 2013	The annual Public Service Fair was held in June 2015 at Keizer Rapids Park. Environmental staff made a poster and partnered with Stormwater Operations staff near the VacCon. 27 copies of the general stormwater brochure were handed out and 70 Howl-A-Palooza save-the-date cards were handed out. Staff will continue to evaluate how useful this BMP is in subsequent years No progress occurred on this BMP in 2014/2015. The existing stations are being used and refilled by park users.			
PE			iv. Develop pet waste study for Keizer to use for outreach v. Continue guided hikes by Stormwater staff to highlight environmental issues of concern along waterways. vi. Utilize City of Salem branding logo for outreach efforts	Staff time Funded	Track annual progress and information gathered Track number of participants, school groups, and events Track materials and events	Annually Annually	Work with local teachers and partner with other agencies for participation. Use on outreach material in 2013/2014	July 1, 8, and 15, 2014 – Nature walks with the Boys and Girls Club of Salem, OR. Aprx. 120 children mainly 7 to 0 years of age. 10/7/2014 – Guided hikes at Keizer Rapids Park with 25 children from Forest Ridge Elementary School in Keizer, OR 4/11/2015 – Slough tours on the Willamette River at Earth #11 in Salem, OR. 103 people of varying ages. Howl-A-Palooza Save-the-Date and event flyers Erosion Control Summit flyers			
PE-4			vii. Add stormwater-related information to the City's Website	Funded	Track information added or updated	Annually	Review annual updates	Annual Reports were posted on the City's website in 2014. The City's website was redesigned in 2015 and is currently up and running. The Environmental Division portion of the website. More information needs to be added to the Division's page			
PE		b. Public outreach covering bacteria issues and concerns	viii. Develop traveling display to be used in public settings i. Storm drain markers ii. Public Review of TMDL Implementation Plan	Staff time Funded	Track locations and presentation material Number of markers installed Document events	Ongoing Annually Annually	Develop display material based on event and location 100 markers installed annually	Staff developed a poster for the annual ACWA Stormwater Summit in May 2015. The poster is an overview of the Mid-Willamette Outreach Group. The poster has been used since the ACWA event by the City of Salem, and the Marion Soil and Water Conservation District			
PI-2								291 markers on July 15, 2014, Nov 8, 2014, and Nov 11, 2014			
PI								All BMPs for the Stormwater Program were reviewed by the Stormwater Advisory Committee on July 29, 2015. Staff is planning to present at a City Council Work Session before the end of the calendar year			
ID-4		b. Prevent human waste (from cross-connections), oil, grease, paint, and	i. Inspect private facilities to determine condition	Funded	Track annual activities such as notification, inventory, and	2016	Staff will provide notification and program overview to the public in 2014	The private inspection work was initiated in 2014/2015. The bulk of the work was completed after July 1, 2015. 124 private commercial properties were inventoried. One illegal connection was identified.			

	other pollutants from entering the storm system.		inspection					
ID-1	ii. Revise illicit discharges detection and elimination plan	Staff time	Track annual activity	2014/2015	Utilize maintenance personnel to assist with rewrite	The Illicit Discharge Detection and Elimination Plan was updated. Environmental staff took input on from maintenance personnel on the new document.		
ID	iii. Internal training for implementation of the new plan	Staff time	Track training	2014/2015	Utilize maintenance personnel to take a lead role in training	5/202015 – 21 Public works employees participated in training		
ID	iv. Implement the new plan	Staff time	Enforcement actions	Ongoing	Document progress in annual report	See Appendix B		
	v. Annual TV inspection of the MS4	Funded	Track annual footage and identify illegal connections and repairs	Annually	10% of MS4 system per year	32, 818.4 feet of the MS4 was inspected and cleaned in 2014/2015.		
ERP-1	vi. Develop Enforcement Response Plan	Staff time	Track implementation statistics	Annually	Draft document in 2014	An enforcement response plan has been developed for the erosion control program. Staff will evaluate this BMP to determine if individual plans should be developed for individual programs.		

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

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

Pollutant: Mercury	BMP <i>Shaded BMPs are included in the SMP</i>	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-4				i. Add stormwater-related information to the City's Website	Funded	Track information added or updated	Annually	Review annual updates	Annual Reports were posted on the City's website in 2014. The City's website was redesigned in 2015 and is currently up and running. The Environmental Division portion of the website. More information needs to be added to the Division's page
PE				ii. Utilize City of Salem branding logo for outreach efforts *Clean Choices, Clean Streams*	Funded	Track materials and events	Annually	Use on outreach material in 2013/2014	Howl-A-Palooza Save-the-Date and event flyers Erosion Control Summit flyers
PE				iii. Erosion Control Summit	Funded	Track attendees and information presented	Annually	Program developed for January 15, 2013	The event was held on January 27, 2015. 120 attendees. Event speakers included DEQ, Clean Water Services, the City of Salem, Green Girl, and Sound Earth Strategies.
PE-3				iv. Utilize the annual Consumer Confidence Report (CCR) to provide citywide outreach	Funded	Track content	Annually	Mailings scheduled for April/May on an annual basis.	CCR insert developed and sent out in May 2015. Content included updates on the erosion control program, proper management of fall leaves, and private stormwater facility inspections.
PE-2		a. Public involvement		i. Storm drain markers	Funded	Number of markers installed	Ongoing	Track annual activity starting in 2013	291 markers installed on July 15, 2014, Nov 8, 2014, and Nov 11, 2014
CS-3		b. Keep soil on site. Prevent material from entering catchbasins and waterways		i. Revise existing erosion control ordinance	Staff time	City Council adoption of amendments	2013/2014	Begin work with City Legal Counsel in 2013	Complete. The ordinance was adopted by Keizer City Council on Dec 1, 2014
CS				ii. Internal training for field staff	Staff time	Record of meeting and content	Ongoing	Training schedule to be developed by staff	Some training has occurred this year for spill response and good housekeeping on 6/10/14. An annual training schedule has not been developed.
CS				iii. Plan review, inspections, and enforcement	Staff time	Track staff progress	Ongoing	Develop enforcement response for the program	An enforcement response plan has been developed for the erosion control program
CS-4				iv. Establish hotline to receive complaints from the public	Funded	Develop tracking system	2014	Develop procedure for checking calls and responding	The after-hours phone system is still being utilized. No progress on this BMP
DS-1				v. Revise Design Standards and Development Code	Staff time	City Council adoption of revised documents	2016	Staff anticipates utilizing SWAC for review of this activity	Staff is working with the Oregon Environmental Council on their Low Impact Development Guide for Western Oregon. The finished guide is expected to be utilized as Keizer's guiding document. The guide is expected to be available in late 2015
DS-3				vi. Internal training for new development standards	Staff time	Completion of training	2016	Develop training schedule	Some limited training has been provided to Environmental Division staff
DS-2				vii. Plan review, inspections, enforcement	Staff time	Track staff progress	Ongoing	Plan review to be completed when revisions are complete	Plan review and inspections are conducted for sites with water quality features such as swales, or vegetated facilities
OM-1				viii. Revise the Good Housekeeping Manual	Staff time	Utilize maintenance personnel for this activity	2015	Utilize maintenance personnel for this activity	The Good Housekeeping Manual was revised during permit year 2013/2014. Primary changes addressed UICs and groundwater. Language has been strengthened to require regular inspections and recordkeeping

OM							16 employees were involved in O & M training on 6/1/2015
OM-4 REVISED						Funded	Assist maintenance personnel with flushing plan Annual inspect all catchbasins and clean those with 6" or more of debris.
OM-5						Funded	2099 catch basins were inspected in 2015. 298 catch basins were cleaned in 2014. This BMP is being implemented. The contract language has been changed to reflect stormwater concerns. 1644 cu yds of material was removed in 2014/2015
ERP-1						Staff time	An enforcement response plan has been developed for the erosion control program. Staff will evaluate this BMP to determine if individual plans should be developed for individual programs. Draft document in 2014

See 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: Temperature

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

BMP Stated BMPs are included in the SWMP	Source What source of this pollutant is being addressed?	Strategy What is being done, or what will be done to reduce or control pollution from the source?	How Specifically, how will this be done?	Fiscal Analysis	Measure How will successful implementation or completion of this strategy be measured?	Timeline When will the strategy be completed?	Milestone What intermediate goals will be achieved and by when to know what progress is being made?	Status
PE-3	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 ii. Design a stormwater brochure to be handed out at meetings and events iii. Develop new restoration projects in the upper reach of Claggett Creek to connect existing sites iv. Develop a tree preservation ordinance.	Funded	Track content	Annually	Mailings scheduled for April/May on an annual basis.	CCR insert developed and sent out in May 2015. Content included updates on the erosion control program, proper management of fall leaves, and private stormwater facility inspections.
PE				Funded	Track usage and events. Revise annually	Annually	Brochure completed by March of each year.	A new brochure was not developed in 2014/2015. A new brochure will be developed when the final MS4 Phase II permit is developed
PE				Staff time. Materials and equipment	Annual progress	2015	Draft plan developed by 2013	No progress on this BMP. A staffing change has resulted in bringing a knowledgeable individual to the Environmental Division. Staff hopes that this activity will move forward over the next year.
PE				Staff time	Document annual progress	2016	Draft plan by 2014	A draft tree preservation ordinance has been developed. Staff has coordinating with Community Development on this project. No progress on this BMP in 2014/2015
PE	b. Public outreach covering temperature issues and concerns		i. Guided hikes at Keizer Rapids Park.	Staff time	Track events and participation	Annually	At least 1 event in 2013	July 1, 8, and 15, 2014 – Nature walks with the Boys and Girls Club of Salem, OR. Approx 120 children mainly 7 to 10 years of age. 10/7/2014 – Guided hikes at Keizer Rapids Park with 25 children from Forest Ridge Elementary School in Keizer, OR 4/11/2015 – Slough tours on the Willamette River at Earth 411 in Salem, OR. 103 people of varying ages. Interpretive signs have been completed and installed
PE-4			iii. Interpretive signage in parks along waterways and in stormwater infiltration facilities iv. Use website to provide stormwater education	Staff time / design & construction funded Staff time	Number of signs installed and locations Track information and content	2016 Ongoing	Storm staff will install 2 signs at Keizer Rapids Park in 2013	Annual Reports were posted on the City's website in 2014. The City's website was redesigned in 2015 and is currently up and running. The Environmental Division portion of the website. More information needs to be added to the Division's page
PE-5			v. Participate in Claggett Creek Watershed Council meetings and projects	Staff time	Meetings attended and partner projects	Ongoing	Continue to assist with recruitment of members	Staff attended 4 meetings and assisted with 4 field activities
PI-3			v. Utilize volunteer groups for restoration work and maintenance	Staff time	Track events and activities	Annually	At least 1 event per year	Invasive weed removal at Keizer Rapids Park on 5/9/15 Planted 16 alder trees at Keizer Rapids Park on 3/20/15

CS-3			Staff time	City Council adoption of amendments	2013	Draft language completed by early 2013	Complete. The ordinance was adopted by Keizer City Council on Dec 1, 2014
DS-1	b. Keep soil on site. Prevent material from entering waterways	i. Revise existing erosion control ordinance. ii. Revise Design Standards and Development Code to address Post-Construction requirements iii. Develop Enforcement Response Plan	Staff time. Public notice is funded	City Council adoption of revised documents	2016	Staff anticipates utilizing SWAC for review of this activity	Staff is working with the Oregon Environmental Council on their Low Impact Development Guide for Western Oregon. The finished guide is expected to be utilized as Keizer's guiding document. The guide is expected to be available in late 2015
ERP-1			Staff time	Track implementation statistics	Annually	Draft document in 2014	An enforcement response plan has been developed for the erosion control program. Staff will evaluate this BMP to determine if individual plans should be developed for individual programs.

Six Minimum Control Measures
PE = Public Education
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APPENDIX A

STORMWATER NOTES



From the Keizer Public Works Environmental & Technical Division

Erosion Control Program – How Will the Revisions Affect You?

Are you planning an addition, shop, or new parking area? Large-scale re-landscaping, driveway replacement, or brush-clearing project? What about a smaller project near a waterway?

You may need an Erosion Control Permit.

Activities such as digging, grading, and clearing result in bare soil that is easily moved by wind and rain. Loose soil that enters local waterways through the storm system or overland flow poses risks to the environment. Excess sediment ruins habitat for aquatic life. It makes it difficult for fish to see and breathe, and can lead to higher water temperatures that fish, frogs, and other wildlife cannot tolerate. It can also alter stream channels, posing barriers and hazards to boat travel. Furthermore, excessive deposition of eroded soils in local streams can decrease the capacity of the waterway which may result in local flooding.

The City of Keizer revised its Erosion Control Program in December 2014 to address a wider variety of projects that may contribute to the problem of sediment in our waterways. If your project is going to disturb 200 – 1,999 sq. ft. within a distance of 75 ft. from the Willamette River or 50 ft. from any other waterway, you will need a no-cost Erosion Control Permit before you begin. If your project will disturb 2000 sq. ft. or more anywhere in the City, you will need an Erosion Control Permit. The fee will depend on how much area you will be disturbing:

Disturbance Threshold (sq. ft.)	Fee
200 – 1,999 – Waterway Adjacent Disturbance	None
2,000 – 9,999	\$100
10,000-19,999	\$200
20,000-43,559	\$500
43,560 (1 acre) +	\$1000

To help you visualize the disturbance thresholds, 200 sq. ft. is about the size of a parking space at a grocery store, and 2000 sq. ft. is about the size of ten parking spaces. Be sure to consider the entire area that will be *disturbed*, not just the size of your project. For example, if you are building a 150 sq. ft. shed, your actual disturbance area will be larger due to equipment traffic, stockpiling, utility installation, and other factors.

If you are unsure if you need a permit, or you need help filling out the application, please contact Billy Johnson at 503-856-3424 or johnsonb@keizer.org or Dorothy Diehl at 503-856-3444 or diehd@keizer.org.

Planning Ahead for Fall Leaves

Many people believe that fall leaves are *supposed* to be put out in the street for the street-sweeper to pick up. In some larger cities, that may be the policy, but it is not the case in Keizer. The street-sweepers that operate in Keizer are not equipped to deal with the volume of leaves that fall each year. Leaves that are deposited in the street by well-meaning but misguided residents and landscapers cause serious problems for the stormwater system. They clog the grates and pipes, increasing maintenance costs and potentially causing localized flooding. When the leaves enter waterways, the decay process decreases the amount of dissolved oxygen that is available for aquatic wildlife like fish.



Please put your leaves in your compost pile or your green curbside bin. If you clear leaves from the storm grate on your street, always be aware of traffic, and use a rake, never your hands.

Protecting Water Quality Via Private Stormwater Facility Inspections



The City will be implementing a private facility inventory starting in summer 2015. The purpose of the inventory is to catalog all of the structures that capture, direct, infiltrate or treat storm runoff from the site. These features may include storm grates, manholes, clean out structures, stormwater filter devices or other treatment structures, infiltration features such as ditches or vegetated stormwater facilities, and/or underground injection systems (UICs).

The first phase of the inventory will be a portion of the commercial and industrial properties. Property owners who will have property inventoried in 2015 will receive a letter in spring of 2015, and inspections will begin in May or June. Completion of the City-wide inventory will take place over several years. When all applicable properties have been inventoried, the City will begin conducting annual inspections.

For more information about the private stormwater facility inspection program, contact the Environmental and Technical Division Manager at 503-856-3563 or by email at sagmillere@keizer.org.

If you have any questions about City of Keizer environmental programs, please contact the Public Works Environmental & Technical Division at 503-390-3700.

SAVE THE DATE

JANUARY 27, 2015

DEVELOPERS
BUILDERS ARCHITECTS
CONTRACTORS LANDSCAPERS
PLANNERS ENGINEERS
MUNICIPAL STAFF & CREWS

YOU'RE INVITED

4th ANNUAL

MID-WILLAMETTE

EROSION CONTROL AND STORMWATER MANAGEMENT SUMMIT

The Mid-Willamette Outreach Group is excited to host the fourth-annual Erosion Control & Stormwater Management Summit in Keizer, OR. We look forward to seeing you at this one-day training event!

EARN UP TO SIX CONTINUING EDUCATION CREDITS

Event focuses on core topics to meet your educational goals

- New techniques in construction erosion prevention
- Stormwater facility design standards
- Operation & maintenance of public stormwater facilities
- Regulatory updates

PRESENTATIONS:

We're hosting experienced experts from a variety of backgrounds and perspectives; including guests from:

- Clean Water Services
- Green Girl Land Development Solutions
- Dept. of Environmental Quality
- City of Salem

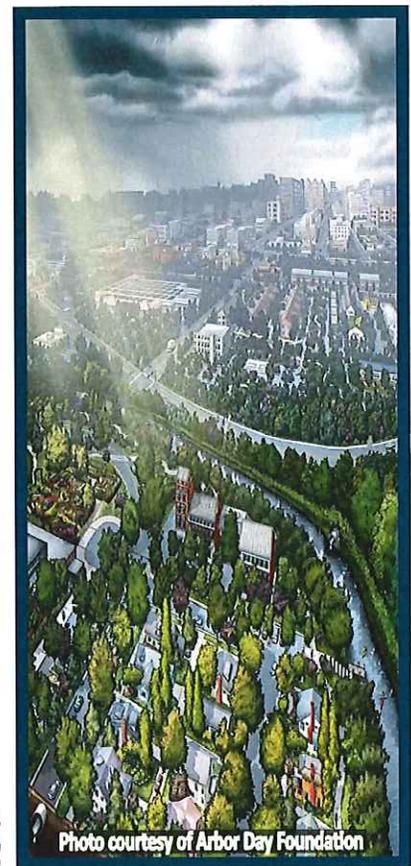
Conveniently located at:

KEIZER CIVIC CENTER

930 Chemawa Rd. NE, Keizer, OR

(free parking)

**FREE meals and refreshments
with registration!**



**EARLY-BIRD
REGISTRATION
OPENS NOV 17TH**

For more information visit:
<http://www.cityofsalem.net/erosionsummit>

Continuing Education Credits Available

CCB Elective, LCB Technical, and PDH Core

BROUGHT TO YOU BY: THE MID-WILLAMETTE OUTREACH GROUP ~ PARTNERS IN WATER RESOURCE EDUCATION



The Evolution of MWOOG



A behind-the-scenes look at the trials and triumphs of the Mid-Willamette Outreach Group (MWOOG), a committee of environmental professionals dedicated to consistent regional water quality education.

MWOOG was conceived in 2010, with the mission to establish an inter-agency partnership that exercises a collaborative approach to water quality education and outreach in the Mid-Willamette region. The first stakeholders to come to the table were Marion County Environmental Services, the Marion Soil & Water Conservation District, the City of Salem Stormwater Services, and the City of Keizer Environmental Division, with support from the OSU Extension Service. In 2013 MWOOG welcomed two new members: the City of Albany and the City of Corvallis.

Previously, each of the stakeholders had been conducting their own education and outreach activities: developing messages, targeting audiences, and tracking results independently. It was at the first meeting that we discovered there was considerable overlap in our programs. The consensus was that we could achieve our goals much more efficiently and effectively by combining efforts and resources.

The first few meetings consisted of getting to know one another and trying to sift-out a compatible pilot project to test our new partnership. We had all developed and implemented general messages about stormwater pollution, which would have been difficult to retrace or shift with any real success. However, soil erosion and sedimentation, it turned out, was a priority for us all. Thus, construction professionals became the group's first target audience, and construction site best management practices became the focus of our first group message. Our flagship event, the Mid-Willamette Erosion Control Summit, is the product of our first group endeavor and is highlighted here as an example of this group's achievement and continued success.

Why Collaborate?

- Save time, money, and resources
- Deliver consistent messaging across jurisdictional boundaries
- Reach larger audiences
- Benefit from the specialized skills of individual group members
- Increase flexibility: where some agencies have constraints, another may have freedom
- Expand your network: get instant access to a greater number of contacts

"Coming together is a beginning, staying together is progress, and working together is success." - Henry Ford

Trials and Triumphs

Working together has certainly afforded us many benefits, but at the same time, it has presented us with some inconvenient challenges. Over the past five years, we've managed to navigate the trials and triumphs of group work, and this is what we have learned:

- Establish clear tasks and deadlines
- Assign roles
- Create an annual work plan and evaluate regularly
- Set agreed-upon member expectations
- Commit to consistent communication and participation
- Conduct regular reviews of group functionality

"In teamwork, silence isn't golden, it's deadly." - Mark Sanborn

Next Steps

- Explore the possibility of a third large annual event
- Invite guest speakers to regular meetings
- Take field trips as a group in order to learn about other agencies' programs and facilities
- Invite new members to join the group
- Identify opportunities for increased partnership on new and existing programs
- Promote MWOOG internally

"The best thing about the future is that it comes one day at a time." - Abraham Lincoln

Our Flagship Event: The Erosion Control Summit

The first Erosion Control Summit took place at the Keizer Civic Center in February 2012. It succeeded in becoming an annual event, bringing in new audience members over the next three years. A participant survey as well as the changing demographics provided helpful feedback. Individual builders weren't registering in great numbers, but engineers, regulatory staff, and operations crews were. By January 2015, the event had become the Erosion Control & Stormwater Management Summit.

Some of the keys to the success of the event:

- Low-cost registration
- CEUs included
- Quality presenters
- Relevant topics
- Great food



Not a One-Hit-Wonder

In the fall of 2012, MWOOG added another annual event to its schedule. "How2apalooza" is a community event that targets pet owners with a message about managing pet waste.

In addition to the large annual events planned and executed by the group, MWOOG members also support each other on smaller, individual outreach endeavors as well.

To retain the support of your peers, it is important to:

- give plenty of notice (last-minute requests should be rare)
- give credit (say thank you publicly AND privately!)
- give back (ask how you can assist with your partner's programs)

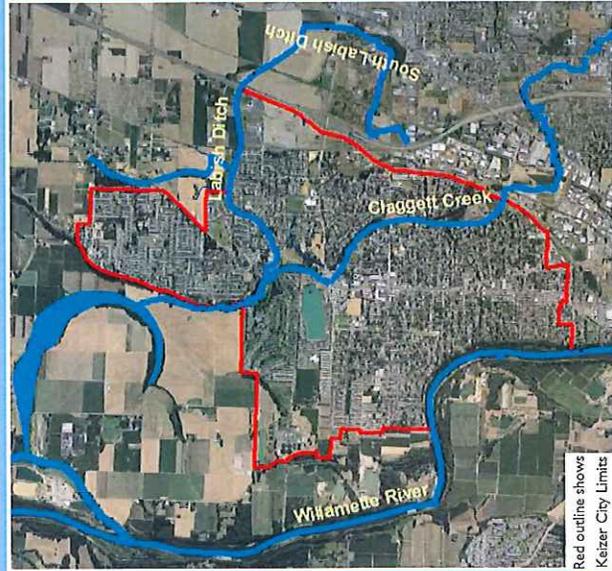


Our Watershed

A watershed is the area of land that is drained by a particular waterway. The Willamette River watershed (also called the Willamette Basin) is the largest in Oregon. It covers over 11,000 square miles and 100 cities in the Willamette Valley. Over 16,000 miles of streams contribute to the Willamette River.

Keizer is part of the Willamette River watershed; Claggett Creek and Labish Ditch both contribute flow to the river. There are also a few large *stormwater outfalls that discharge stormwater runoff from neighborhoods directly to the river.

Keizer Waterways



*See inside panel for info on stormwater.

Precious Resources

A healthy watershed provides numerous benefits to its residents.

Clean rivers and streams provide recreational activities such as fishing, boating, swimming, wildlife watching, and relaxing. These stress-relieving activities are good for your physical and mental health!

The buffers of native trees and plants along waterways in a healthy watershed benefit the waterway—and you. According to the USDA, one acre of forest absorbs 6 tons of carbon dioxide and releases 4 tons of oxygen.

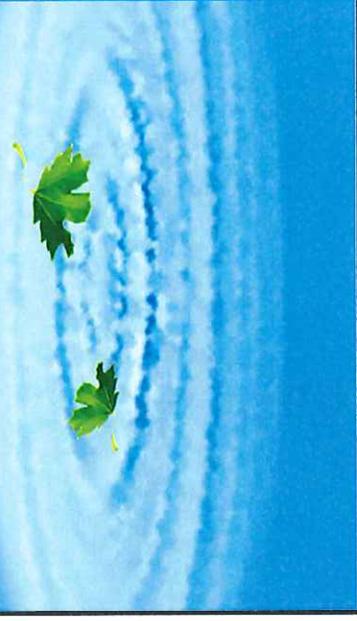
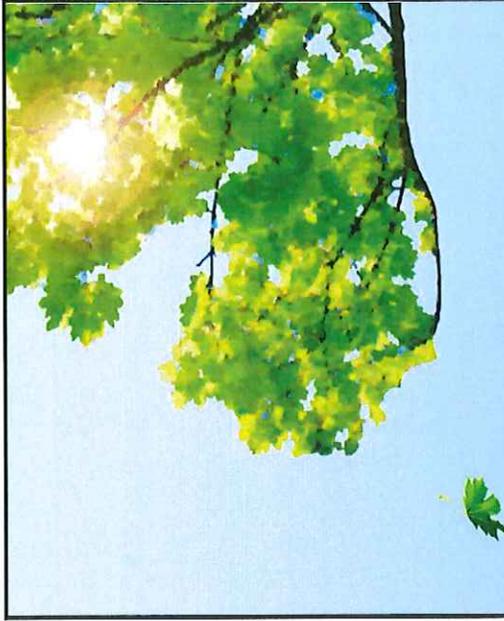
Healthy watersheds are vital to sport fishing, which is vital to the economy. Americans spent \$41.8 BILLION on sport fishing in 2011.

Homebuyers value healthy waterways. Even in lean economic times, property values tend to be much higher near clean waterways and areas with access to nature.

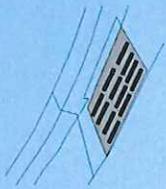
Clean Water: A Matter of Choice

Information brought to you by
the City of Keizer Public Works:
Stormwater Division

503-390-3700



Stormwater and You



In an urban environment like Keizer, stormwater runoff must be managed. Due to impervious surfaces such as roads, rooftops, driveways, and parking lots, water can't soak into the ground the way it does in undeveloped areas. Without a publicly-supported system of drains, pipes, ditches, and infiltration systems, the city would experience serious problems such as localized flooding and poor sanitation.

Most of the stormwater runoff that is collected is discharged directly to our local waterways — untreated. To protect water quality, we must all do our part to keep pollutants out of the stormwater system.

Read on to find out how you can help keep our waterways healthy for wildlife and people.

What Have You Done For Your River Lately?

The river does a lot for us. Give something back!
Choose one of the following ways of protecting water quality, and stick to it!

Plant a tree! Add native vegetation to your property (or retain what's there), especially along waterways. Plants help keep the water cool, filter pollutants, hold the bank in place, absorb carbon dioxide, and produce oxygen!



Take care of yourself AND the environment! Whenever you can, choose walking or riding a bike instead of driving.



In landscaping and gardening, take care to keep soil on the site. Excess dirt in our waterways clogs fish gills and buries important underwater habitat.



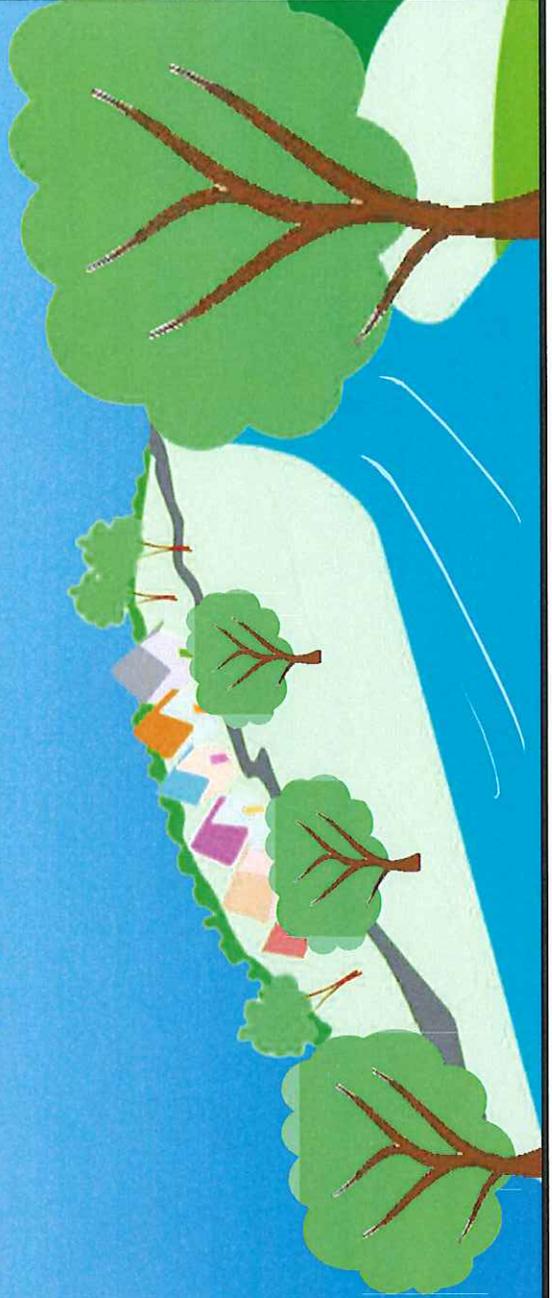
Bacteria and parasites in pet waste can contaminate waterways and make people sick. Always clean up after your pet—even in your own backyard.



Help keep waste out of the water by recycling what you can and properly disposing of what you can't.

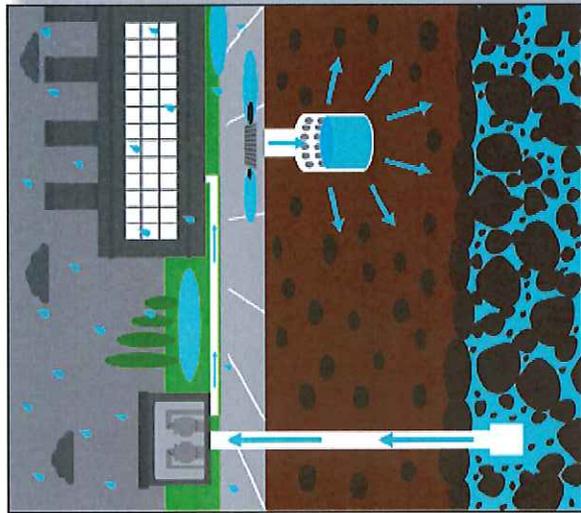


Grease, grime, and soap suds don't belong in the storm drain. Wash your car on your lawn or consider going to a commercial carwash -- they reuse the water!



Stormwater runoff can pollute groundwater

As stormwater runs over hard surfaces, it picks up oil, chemicals, bacteria and other pollutants. Stormwater flows into swales, local streams, or into an Underground Injection Control (UIC) system such as a drywell or drill hole. In a drywell, a large "empty" well, water soaks into the soil and some pollutants are filtered out before it enters groundwater (see figure, below).



A UIC releases stormwater underground; water wells pull groundwater for drinking and other uses.

Regulatory Information

Underground Injection Control (UIC) systems are regulated by Oregon Department of Environmental Quality (DEQ) and U.S. Environmental Protection Agency. Find information on DEQ's UIC program at: <http://www.deq.state.or.us/wq/uic/uic.htm>

Find out if your business is located in a drinking water protection area by checking: <http://www.deq.state.or.us/WQ/dwp/results.htm>

Consult with your local municipality and the DEQ for guidance on discharging non-polluted roof drainage to a drywell without pretreatment.

All commercial and industrial drywell owners must register with DEQ.

City of Keizer residents and business-owners:

For questions or to report illegal dumping during business hours (M-F, 8AM—5PM) call:

503-856-3563 or 503-856-3526

To report illegal dumping after hours call:

503-393-1608

Clean Water Tips for BUSINESS and INDUSTRY



ACWA gratefully acknowledges the DEQ for several concepts and best practices noted herein.

*The water you protect
may be your own!*

Outside Activities

- Never dump anything into gutters, storm drains or onto the street.
- Prevent spills and report illicit dumping immediately (see back).
- Properly maintain stormwater facilities on your property for effective treatment.
- Use landscaping pesticides and fertilizers sparingly; do not apply before rain or during high winds; sweep up excess.
- Sweep up and collect dirt and debris rather than hose or blow it off to the street/storm drain.
- Landscape bare soil to prevent erosion.
- Clean vehicles at a commercial car wash or use a covered wash rack that drains to an approved sanitary sewer or a holding tank.
- Holding tanks must be routinely emptied and the wastewater properly disposed of.

Floors and Plumbing

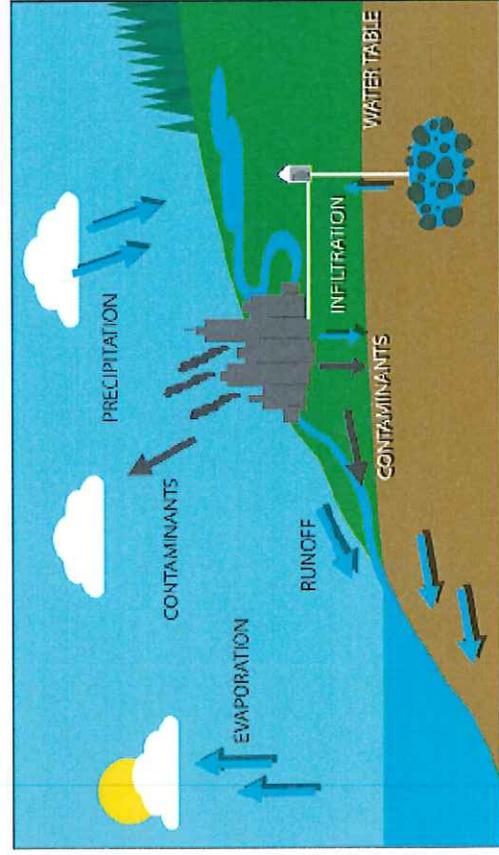
- All floor drains must discharge to the sanitary sewer system or a holding tank as approved by your local municipality.
- In chemical storage and work areas, seal floors with impermeable materials resistant to any acids, caustics, solvents, oils or other pollutants that may be at the facility.
- Identify and eliminate any illegal cross connections between the storm drain and the sewer lines.

Storage Areas

- Properly label containers and keep closed when not in use.
- Cover storage areas; allow access only to authorized, properly trained personnel.
- Use secondary containment to reduce spill potential from areas where chemicals are stored, loaded or unloaded.

Work Areas

- Keep spill response kits easily available.
- Clearly post emergency contact numbers in storage, loading/unloading, dispensing and work areas.
- Make Safety Data Sheets (also known as MSDSs) readily available, and train workers.
- Maintain equipment properly to reduce leaks and breakdowns: regularly inspect equipment, test tanks, replace worn parts, seals and gaskets.
- Repair leaks and clean spills properly and promptly.
- Use non-hazardous materials when possible.
- Properly dispose of hazardous wastes.
- Separate waste-generating operations from other activities, within a confined area with sealed floors and no direct outside access, if possible.
- Provide proper storage areas for spent chemicals, soiled rags, and other wastes.



You can prevent pollutants from entering the water cycle!

Did you know that approximately 70% of Oregon's residents rely at least partly on drinking water that is pumped from groundwater? Polluted groundwater is very expensive or impossible to clean up.

Your healthy business practices help protect Oregon's drinking water and your family from harmful pollutants. Good stormwater and spill control practices not only protect precious water resources, but also avoid violations that could result in fines, imprisonment and other legal action.



Capital Canine Club for Clean Streams

You and your pooch can "pawsitively" make a difference in keeping local neighborhoods and streams clean.

How You Can Help

It's as easy as 1-2-3. Pick up after your pet, every time.

1. See it
2. Scoop it
3. Toss it in the trash

Why It Makes a Positive Difference

Pet waste on the ground is no different than raw sewage. It contains *E. coli* bacteria and parasites that can create health problems for our pets and us. *E. coli* bacteria levels in the Willamette River and local creeks exceed levels recommended by the water quality standard. When we do not pick up after our pets, the waste and its associated bacteria can be washed into local waterways, polluting our streams. People can be affected by bacteria in water when engaging in water recreation activities such as swimming, wading, or water skiing.

Small Scoop Equals Big Impact

Though it may seem like a small matter to leave your pet's droppings on the ground, it all piles up. Marion County Dog Services estimates a population of 75,000 canines in Marion County. Each dog generates an average of 0.75 pounds of waste, for a grand total of 56,250 pounds of waste, for a grand total of 20 million pounds in one year!

Become a Member—Pledge to Scoop

It's easy to become a Capital Canine Club member. Pledge to pick up after your pet and receive a free bag dispenser while supplies last. Just fill out this quick member registration card and send it to us. You may email the completed card to pets@cityofsalem.net or mail it to Capital Canine Club at 1410 20th Street SE, Building 2, Salem, OR 97302-1209.

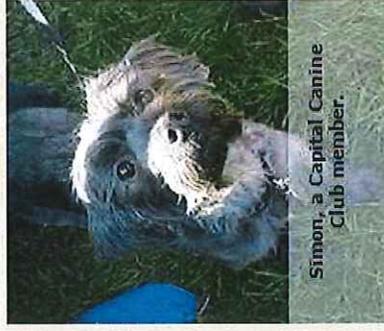
About This Initiative

The Capital Canine Club program is sponsored by the City of Salem, the City of Keizer, and Marion County.



Popular Downloads

Type	Title	File Size
	Capital Canine Club Registration Form	196 KB



Know the Scoop

Type	Title	File Size
	Know the Scoop 2014/04	218 KB
	Know the Scoop 2014/01	771 KB



APPENDIX B

IDDE REPORTING SUMMARY TABLES**PUBLIC WORKS IDDE – Total Combined PW Incidents**

Automotive	8
Chemical	3
Construction	4
Food/Grease	2
Sediment	9
Sanitary Sewer	0
Vegetation	2
Waterwaste	6
Total Incidents	34

PUBLIC WORKS IDDE - MS4 Incidents by Type

Automotive	4
Chemical	3
Construction	4
Food/Grease	2
Sediment	7
Sanitary Sewer	0
Vegetation	2
Waterwaste	5
Total Incidents	27

PUBLIC WORKS IDDE - UIC Incidents by Type

Automotive	4
Chemical	0
Construction	0
Food/Grease	0
Sediment	2
Sanitary Sewer	0
Vegetation	0
Waterwaste	1
Total Incidents	7

Keizer Fire IDDE Incidents by Type - 2014/15	
MVA (Motor Vehicle Accident) - No Spill*	53
MVA - Automotive Spill	26
MVA - Chemical Spill	1
Motor Vehicle Fire	2
Water Vehicle Fire	1
Flammable Liquid Spill (Non-MVA Related)	1
Total Incidents	84

* No spill for these incidents, so not detailed in spreadsheet

**PUBLIC WORKS IDDE
INCIDENT REPORTING TABLE**

Date	Location	Type	Description	Action	Follow up
7/8/2014	Across from 146 Glynbrook St N	MS4 - Automotive	Staff noticed a large area of oil drips on the street, but no vehicle parking there at the time. Catchbasin down gradient of oil drips.	Staff used oil pad at catchbasin to protect the inlet, used absorbent to pick up grease.	Staff picked up oil pads at a later date.
7/9/2014	3590 River Rd	MS4 - Food/Grease	Anonymous caller observed employee dumping into catch basin behind a restaurant. Inspection confirmed trash and cooking oil residue around the catch basin. Caught employee coming out with liquid filled bucket in hand, who said they were going to dispose of liquid in the bark dust.	Staff informed employee and restaurant that waste must be disposed of in trash or down sewer drain. Restaurant agreed to do this.	Post-inspection found no further issues.
8/29/2014	5014 River Rd	MS4 - Construction	Staff found plaster/drywall material mud in parking lot with flow to catchbasin behind a store.	Staff spoke to contractor working at the store. Contractor agreed to clean out the catchbasin and pavement leading to it.	No further issues.
9/1/2014	1590 Chemawa Rd - Boat Ramp	MS4 - Automotive	Boat caught on fire while moored at Keizer Rapids Park Boat Ramp and was extinguished by the Keizer Fire Dept. Boat was towed. Light oil sheen was left behind on the water.	Oil sheen surrounded and absorbed by a 100' oil boom placed along the floating dock for 24 hrs.	No further issues.
11/27/2014	5210 Claggett	MS4 - Chemical	Truck on River Rd swerved and hit a power box to avoid the other motorist. When the power box began to leak mineral oil (for cooling) onto the surrounding bark dust over the curb and towards a private catchbasin.	Keizer Fire responded to spill, put down absorbent and protected CB inlet.	Power company repaired box and sent clean-up crew to dig out contaminants in soil.

Date	Location	Type	Description	Action	Follow-up
12/16/2014	4520 Stinnett Ln (and various)	MS4 - Automotive	Staff noticed oil drips on the pavement from 4520 Stinnett Ln down Lawless to Harcourt down to Dearborn and on Verda and Chemawa where it disappeared.	Staff applied grease removal solution to affected areas.	No further issues.
12/27/2014	Intersection of Wheatland and River Rd	MS4 - Automotive	Staff was dispatched to assist the Fire Dept. with clean-up of engine fluids and debris from a car accident.	When staff arrived nearly all of the fluids had been cleaned up and none had reached the catch basins. Placed bio-bags and absorbent pads by the catch basins as a precaution.	Staff inspected site few days later and removed pads.
1/27/2015	810 Ventura St	MS4 - Chemical	Staff responded to a report of people dumping latex paint on the street.	Perpetrators were not there, but staff used absorbent pads and sand to clean up the street, and the Vac-truck was used to clean out nearby catch basin.	No further issues.
2/1/2015	River Rd Southbound from Lockhaven	MS4 - Automotive	Fire Dept. responded to a call about sheen and had Dispatch contact PW for recommendation. Staff responded and found some automotive fluid sheen down River Rd into Salem.	It did not require spill clean-up and had begun to dissipate.	No further issues.
2/2/2015	Wiessner Pump Station	MS4 - Construction	Staff discovered a muddy trail of water coming off a dirty excavator at Wiessner Pump Station.	Staff employed bio bags then called the City of Salem inspector in charge of said contractor to clean up the mess.	Post inspection found site cleaned up.

Date	Location	Type	Description	Action	Follow-up
2/5/2015	Celtic Way & Chemawa Rd	MS4 - Automotive	Police dispatch called PW staff for spill response on a motor vehicle accident.	Staff responded and applied some absorbent pads and grease sweep to the area, as well as bio bags at the spill and by the nearest catch basin.	Spills cleaned up, no further issues.
2/18/2015	3850 5th Av N	MS4 - Waterwaste	Staff discovered a possible active connection from a swimming pool to the city Stormwater pipes, after looking at TV report video.	Subsequent testing discovered that it did indeed go into the storm system. The swim club agreed to re-plumb to the sanitary sewer.	Staff later performed a "dye test" to confirm the new connection ran to sewer.
2/26/2015	1969 Wiessner Dr	MS4 - Vegetation	A pile of bark dust was dumped on the street in front of a house.	Staff spoke with the home owner who said that all of the bark dust will be off of the street by the end of the day.	Staff placed bio-bags at the CBs in the meantime, pile was subsequently moved.
2/26/2015	7745 O'Neil Rd	MS4 - Sediment	Staff discovered a pile of dirt in a driveway, with some dirt making its way to the catch basin.	Staff spoke with the homeowner, who said they would cover the pile with a tarp to prevent sediment wash-off.	Staff placed a bio bag next to the catch basin for protection.
3/7/2015	4690 12th Ne	MS4 - Construction	Homeowner washed out concrete buggy in street, slurry trailed down curb line to catch basin.	Staff spoke with homeowner, explained why it was not okay to wash out concrete, used our Vac-truck to clean up.	No further issues.
3/10/2015	4887 12th Ave. Ne	MS4 - Chemical	Staff found a small amount of paint that had been washed out along gutter, no one was at the residence.	Door hanger placed to advise this was not allowed.	No further issues.

2014/2015 Enforcement Actions

APPENDIX B

Date	Location	Type	Description	Action	Follow-up
4/9/2015	1252-1254 & 1372-1374 Country Glen	MS4 - Vegetation	Large pile of bark dust dumped along curblin in street	Staff spoke with owner, who said bark dust will be removed quickly.	No further issues.
4/10/2015	4913 Shoreline Lp	MS4 - Construction	Contractor dumped rock in the street.	Staff talked with contractor, and clean up was taken care of right afterwards.	No further issues.
5/11/2015	4343 Rivercrest	MS4 - Vegetation	Approximately 7 yards of wood chips dumped on a property and spilled over the sidewalk and into the street.	Staff spoke with homeowner, who agreed to clean it off the street and sidewalk that day.	Post inspection confirmed cleanup took place as discussed.
6/3/2015	7324 Park Pl	UIC - Automotive	Three cars up on blocks being worked on, and two were leaking small amount of oil leaking onto the ground.	Police and Fire were on scene talking to the owner when PW staff arrived. Staff cleaned up the oil leaks.	No further issues.
6/9/2015	1115 Swingwood Dr NE	MS4 - Automotive	Staff found car on side of road with oil leaking from underneath it.	Staff could not find owner, but cleaned up the oil. Forwarded to Police Department who discovered car was not registered.	Police had car towed. No further issues.

KEIZER FIRE IDDE INCIDENT REPORTING TABLE

Keizer Fire Incident Date	Incident Address	Type	Action Taken	Incident Narrative KZF = Keizer Fire; KZP = Keizer Police; MVA= Motor Vehicle Accident
9/1/14	1900 Chemawa RD N	Water Vehicle Fire	Extinguishment by Keizer Fire	KZF units were dispatched to a reported marine incident (boat fire) at the Keizer Rapids Park boat ramp. Arrived to find the boat well involved in fire next to the dock tied up with the owner attending. The dock line attaching the boat to the dock had burned through and the boat began drifting into the Willamette River. Firefighters attempted to pull the boat closer to the dock and then it sunk about 20' from the dock. Requested the on-call Public Works for the City of Keizer to come and inspect the dock and investigate the spill into the waterway. D381 called the City of Salem Pollution Control who wanted to come out and check out the incident. He arrived and determined that no action would be taken for the spill, but he would file a report with OERS. See PW Incident dated 9-1-2014 for further details on clean-up.
9/3/14	Delta CT N & Delta DR NE	MVA Automotive Spill	Remove hazard	Two car non-injury MVA with small amount of anti-freeze leaking, placed a hazmat pad under the leak.
9/19/14	River RD N & Appleblossom AVE NE	MVA Automotive Spill	Remove hazard	Two car non-injury MVA. E355 cleaned the roadway of antifreeze and debris.
9/28/14	Cherry AVE NE & Alder DR NE	MVA Automotive Spill	Remove hazard	Two car T-bone non-injury MVA. Crews cleaned up debris/fluids and waited for tows to finish clean-up.
10/7/14	1139 Manzanita ST NE	Motor Vehicle Fire	Investigate	Dispatched to a car fire, arrived to find late model Ford van in driveway with dry chem all over vehicle. Fire limited to area of starter.
10/19/14	1034 Swingwood DR NE	Motor Vehicle Fire	Investigate	Dispatched to a reported car fire in the driveway. No fire on arrival as occupant used fire extinguisher on the fire PTA. No other hazards found.
10/27/14	River RD N & McGee CT NE	MVA Automotive Spill	Remove hazard	Cleaned up transmission fluid from a non-injury MVA. Approximately 1 quart of fluid on ground, no threat to storm drain.
11/20/14	4080 River RD N	MVA Automotive Spill	Remove hazard	Clean up fluids from a non-injury MVA. No other hazards noted.

Keizer Fire Incident Date	Incident Address	Type	Action Taken	Incident Narrative
11/27/14	5210 River RD	MVA Chemical Spill	Spill control /containment	Truck went over curb and hit a PGE ground level power box. Mineral oil leaked down the parking lot and beginning to go in the drain. E355 crew immediately built a make shift dam and kept any further mineral oil from going in to the drain. City of Keizer arrived and took note of the fluid and worked with Pollution Control. PGE repaired the power box and advised that their hazmat clean-up crew would be dispatched to clean up the mineral oil that was in the dirt/bark dust.
12/3/14	6160 River RD	MVA Automotive Spill	Remove hazard	Non-injury MVA with approx. 1 quart anti-freeze spilled on road, no threat to storm drain. Fluids & debris cleaned up by KZF.
12/5/14	4915 River RD	MVA Automotive Spill	Remove hazard	Non-injury MVA with approx. 1/2 gal. anti-freeze on roadway, no threat to storm drain. Keizer Public Works assisted with clean-up.
12/8/14	761 Lockhave DR NE	MVA Automotive Spill	Check for injuries & Remove hazard	2 vehicle non-injury MVA with approx. 1/2 gal. anti-freeze spilled on roadway no threat to storm drain. Fluids & debris cleaned up by KZF and public works.
12/31/14	River RD N & Chemawa RD	MVA Automotive Spill	Investigate	Small spill clean-up from a non-injury MVA.
1/16/15	Verda LN NE & Dearborn AVE NE	MVA Automotive Spill	Investigate & Remove hazard / clean-up	Two vehicle non-injury MVA. When the tow truck loaded vehicles approx. 1 quart of anti-freeze and 1 pint of transmission fluid leaked on the asphalt, did not threaten storm drains. Keizer Public Works assisted with clean-up of fluids. KZF cleared with KZP still on-scene.
2/1/15	5450 River RD	Flammable Liquid Spill	Investigate	Sheen of fluid on Lockhaven Drive N to River Road then South on River Road for several miles. WVCC notified Keizer Public Works.
2/5/15	Chemawa RD N & Celtic WAY N	MVA Automotive Spill	Investigate	Non-injury with small spill cleanup done with public works on scene.
2/26/15	Chemawa RD & Lockhaven DR NE	MVA Automotive Spill	Remove hazard	Spill clean-up from a non-injury MVA.

2014/2015 Enforcement Actions

APPENDIX B

Keizer Fire Incident Date	Incident Address	Type	Action Taken	Incident Narrative
3/5/15	River RD N & Plymouth DR NE	MVA Automotive Spill	Investigate	Non-injury MVA with approx. 12 ounces of anti-freeze on roadway, cleaned up with absorbent by E-355. No threat to storm drains. KZP left on scene.
3/20/15	River RD N & Manzanita ST NE	MVA Automotive Spill	Remove hazard	Non-injury MVA with E-2 providing debris and fluid clean-up of approx. 1 quart of transmission fluid from roadway. No threats to storm drains.
4/2/15	River RD N & Chemawa RD	MVA Automotive Spill	Remove hazard	Vehicle in middle of road leaking window washer fluid. Cleaned up debris, fluid evaporated and did not impinge on a storm drain. Cleared with KZP on-scene.
4/17/15	River RD N & Chemawa RD NE	MVA Automotive Spill	Remove hazard	KZP reported two car rear end type MVA with antifreeze down. KZP arrived to find windshield washer fluid in roadway. Cleaned roadway, fluid did not go into storm drain.
4/18/15	5303 River RD	MVA Automotive Spill	Investigate	Clean up of antifreeze. No exposure to storm drains.
4/20/15	4925 River RD	MVA Automotive Spill	Remove hazard	Two car non-injury rear end type accident. Both vehicles pulled into parking lot with small antifreeze leak from one vehicle. Spill pads placed, no threat to storm drains. Cleared with KZP on-scene.
4/23/15	Cherry AVE NE & Sam Orcutt WAY NW	MVA Automotive Spill	Remove hazard	Three car non-injury rear end type accident. Removed antifreeze from roadway, no storm drains affected.
4/25/15	Lockhaven DR NE & McCleod LN NE	MVA Automotive Spill	Remove hazard	Two car non-injury MVA. Approx. 1 gallon of antifreeze removed from roadway, no threats to storm drains. Cleared with KZP on-scene.
5/8/15	5273 Newberg DR N	MVA Automotive Spill	Remove hazard	Vehicle lost control and damaged several cars and yard. Removed small spill & debris from roadway. No storm drains threatened.
5/11/15	4495 River RD	MVA Automotive Spill	Remove hazard	Vehicle into fuel pump at Astro gas station. Pump is off its base, gas shut off was activated, driver was not injured. Very little gasoline on the ground (content of hose). Advised Keizer Public Works as a storm drain was threatened. KPW arrived and we offered assistance, but he declined. Left the scene in control of KPW.

Keizer Fire Incident Date	Incident Address	Type	Action Taken	Incident Narrative
5/22/15	Joan N & Lockhaven DR N	MVA Automotive Spill	Transport person	2 car T-bone accident w/heavy impact. 3 patients all transported to SHED. Debris and fluids left on the ground and not cleaned up per KZP. KZP closed off the scene for crash team investigation.
6/15/15	Lockhaven DR NE & Chemawa RD NE	MVA Automotive Spill	Transport person	2 vehicle rear-end MVA. All occupants self-extricated PTA. Driver of the front vehicle transported by M-36. Approx 1 pint of anti-freeze cleaned up, no threats to storm drains.
6/28/15	Brooks AVE NE & Garden CT NE	MVA Automotive Spill	Transport person	Single vehicle through 2 yards at a high speeds striking 2 large landscape boulders. Driver transported by M-36, passenger transported by M-35. Large amount of debris scattered on the road with approx 2 quarts of anti-freeze cleaned up, no threat to any storm drains. KZP left on scene.
6/29/15	Keizer Station BLVD NE & Chemawa RD NE	MVA Automotive Spill	Investigate	Clean up radiator fluid as a result of a non-injury MVA.

APPENDIX D

WPCF

FY14/15
City of Keizer
WPCF
Annual Report
New UIC 114

Legend

CatchBasin (ID#400-699)

Design

- No bottom
- Solid
- Junction (ID#600-799)

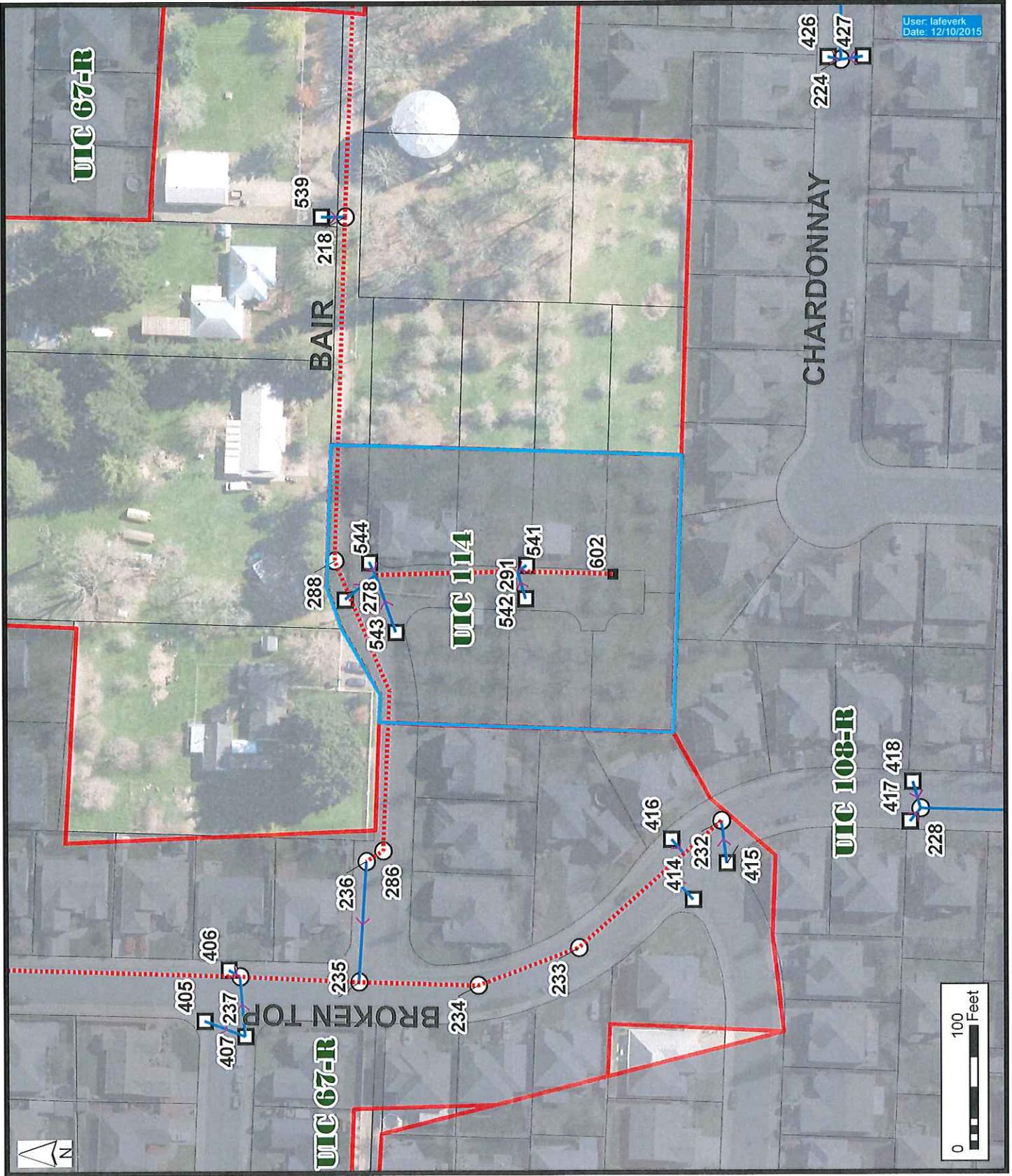
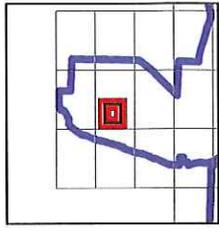
Manhole (ID#200-399)

Types

- Solid
- Perf
- ABB
- StormOutfall

Storm Pipe Type

- Solid
- Abandoned
- Perf
- Keizer City Limits



FY14/15
City of Keizer
WPCF
Annual Report
New UIC 115

Legend

CatchBasin (ID#400-599)

Design

No bottom

Solid

JunctBox (DW#600-799)

Manhole (ID#200-399)

Types

Solid

Perf

ABD

StormOutfall

Storm Pipe Type

Solid

Abandoned

Perf

Keizer City Limits

