

Oregon City Natural Resources Committee Meeting on the City's Municipal Stormwater Permit

Brown and Caldwell Consultants

March, 2013



Acronyms:

BMP – Best Management Practice

LID – Low Impact Development

MEP – Maximum Extent Practicable

MS4 – Municipal Separate Storm Sewer System

NPDES – National Pollutant Discharge Elimination System

SWMP – Stormwater Management Plan

TMDL – Total Maximum Daily Load

WLA – Waste Load Allocation

Agenda

- I. Recap of MS4 NPDES permit requirements.
- II. New requirements in the permit.
- III. Summary of additional resources required to comply with new permit.

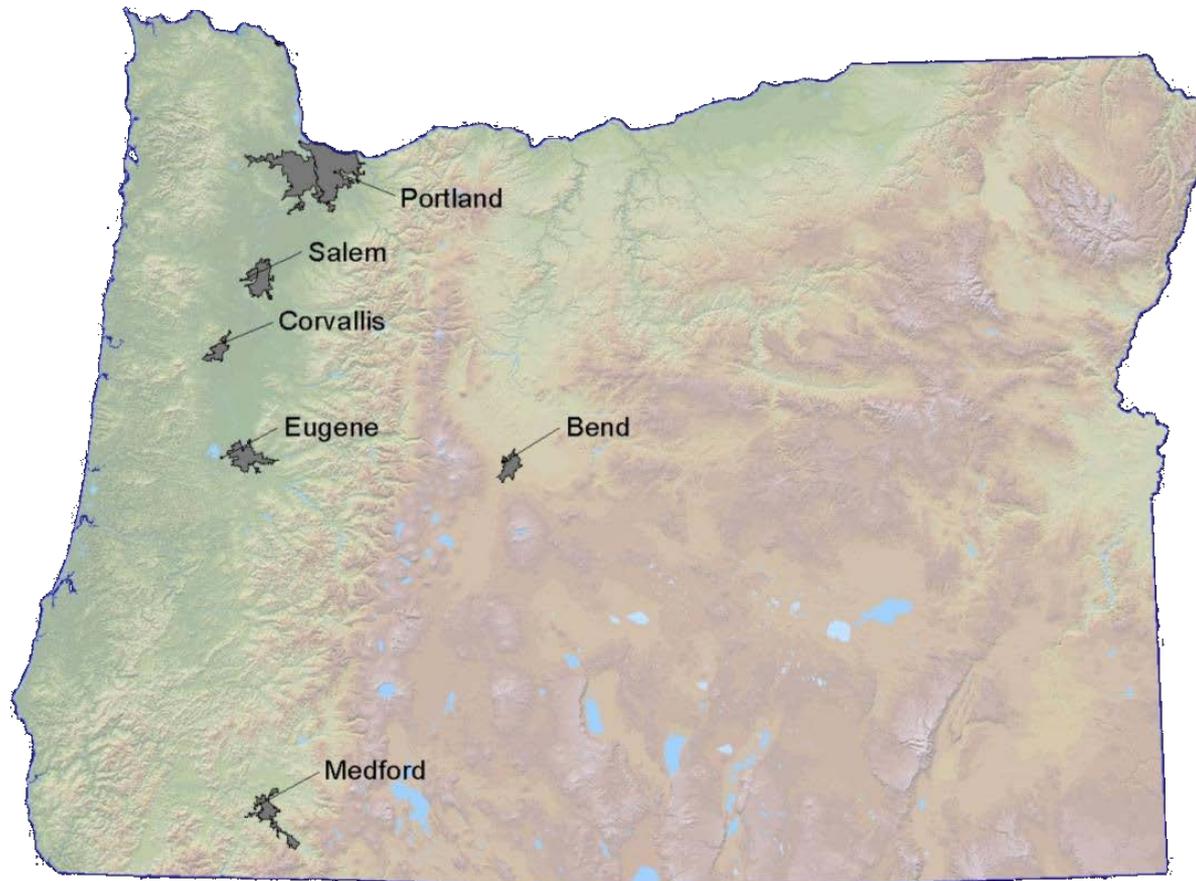
I. Recap of Requirements

- Early 1990s–Municipalities with >100,000 in population were required to get Phase I NPDES permits for runoff from their municipal separate storm sewer systems (MS4s).
- Applied to six permit areas representing approximately 33 jurisdictions in Oregon.
 - Gresham
 - Eugene
 - Salem
 - Portland
 - Clackamas County
 - Clean Water Services



I. Recap of Requirements

- Phase I permits were issued in 1995 (6 "large" urban areas)
- Phase II Permits were issued in 2007 (18 "smaller" communities)



I. Recap of Requirements

- The central element of the permit is a SWMP.
- SWMPs are required to include specific categories of best management practices (BMPs).
- BMPs are required to be implemented to reduce the discharge of pollutants to the “maximum extent practicable” (MEP).
- Sampling is also required.



I. Recap of Requirements

Oregon City MS4 NPDES Permit History:

- 1995–2000:
 - SWMP implementation.
 - Monitoring implementation.
- 2004–2009:
 - Updated SWMP implementation.
 - Updated monitoring implementation.
 - New requirement to quantify pollutant load reductions (benchmarks).
- 2012–2017:
 - Additional requirements as summarized in the following slides.



II. New Requirements

■ Required SWMP Program Areas

1. Illicit Discharge Detection and Elimination
2. Industrial and Commercial Facility Inspections
3. Construction Site Runoff Management
4. Education and Outreach
5. Public Involvement and Participation
6. Post-Construction Site Runoff Management
7. Pollution Prevention for Municipal Operations
8. Operation and Maintenance Activities
9. Stormwater Monitoring
10. **New Element** – Hydromodification Assessment
11. **New Element** – Stormwater Retrofit Strategy Development
12. **New Element** – TMDL Waste Load Allocation Attainment Evaluation
13. **New Element** – Adaptive Management Process

1. Illicit Discharges Detection and Elimination

Oregon City's Existing Program

- ✓ Inspect outfalls during dry weather.
- ✓ Implement spill response activities.
- ✓ Control cross-connections from the sanitary system.
- ✓ Respond to public complaints.

New Additional Requirements

- ✓ Describe enforcement response procedures.
- ✓ Develop documented standard operating procedures with pollutant screening levels.
- ✓ More stringent requirements regarding when samples should be analyzed in a lab.
- ✓ Maintain maps of MS4 outfalls.



Due Date: November 1, 2012 (completed)

	\$	Staff	CIP	Training
IDDE	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>

2. Industrial and Commercial Facilities

Oregon City's Existing Program

- Respond to customer complaints.

New Additional Requirements

- Develop a program (and standard operating procedures) to screen existing and new industrial facilities to assess whether they need an industrial stormwater permit and notify DEQ.
- Implement a business inspection program (currently planned but unfunded).



Due Date: July 1, 2013

	\$	Staff	CIP	Training
Industrial/ Commercial	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>

3. Construction Site Runoff Control

Oregon City's Existing Program

- Require erosion control permits for developments greater than 1,000 ft².
- Review and approve erosion control plans.
- Conduct site inspections.
- Conduct enforcement.

New Additional Requirements

- In addition to sediment, ensure program addresses waste that may cause impacts to water quality such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste.



Due Date: November 1, 2014

	\$	Staff	CIP	Training
Construction		<input type="radio"/>		<input type="radio"/>

4. Education and Outreach

Oregon City's Existing Program

- Provide public education and outreach materials.
- Conduct staff training for pest management.
- Conduct staff training for spill response.
- Provide education to construction site operators.
- Participate in intergovernmental coordination efforts.
- Sponsor volunteer catch basin stenciling.
- Offer discounts on erosion control permits to contractors obtaining erosion control certification.
- Provide funding for Regional Coalition of Clean Rivers and Streams.

New Additional Requirements

- Conduct public education survey to “quantify” changes in behavior.
- Provide education regarding maintenance of private water quality facilities.
- Train municipal employees involved with MS4 related activities.

Due Date: July 1, 2015

	\$	Staff	CIP	Training
Education	<input type="radio"/>	<input type="radio"/>		<input checked="" type="radio"/>

5. Public Involvement and Participation

Oregon City's Existing Program

- Solicit public comment on the City's SWMP and TMDL benchmarks.

New Additional Requirements

- Include provisions to receive and consider comments on annual reports.

Due Date: Ongoing

	\$	Staff	CIP	Training
Public Involvement		○		

6. Post-Construction Site Runoff

Oregon City's Existing Program

- Implement municipal development codes and stormwater design standards to address water quality.
- Conduct plan reviews.
- Conduct site inspections.

New Additional Requirements

- Optimize on-site retention of runoff.
- Minimize runoff volumes.
- Prioritize low-impact development (LID) practices.
- Revise the City's stormwater design standards, codes, and design manual.
- Implement a program for off-site mitigation for development activities that can not meet the new post-construction requirements.



Due Date: November 1, 2014

	\$	Staff	CIP	Training
Post-Construction	●	●		●

7. Pollution Prevention for Municipal Operations

Oregon City's Existing Program

- Pipe system cleaning and maintenance.
- Catch basin cleaning and maintenance (33% per year).
- Street sweeping three times per year.
- Implement a cross-connection abatement program.

New Additional Requirements

- Implement a program to control the City's use and application of pesticides, herbicides and fertilizers.
- Implement a program to control the release of materials from fire-fighting training and activities.
- Implement a program to reduce the impact of stormwater runoff from municipal facilities.



Due Date: July 1, 2013

	\$	Staff	CIP	Training
Pollution Prevention	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

8. Structural Stormwater Control Operation and Maintenance Activities

Oregon City's Existing Program

- Public water quality facility inspection, cleaning and maintenance.

New Additional Requirements

- Conduct mapping of public water quality facilities.
- Implement maintenance program for private water quality facilities.
 - Inventory and mapping
 - Inspections
 - Maintenance agreements
 - Enforcement



Due Date: July 1, 2013

	\$	Staff	CIP	Training
O&M		●		●

9. Monitoring and Reporting

Oregon City's Existing Program

- ✓ Participating in a regional comprehensive monitoring program with other Clackamas County co-permittees.
- ✓ Instream Sampling – Oregon City collects samples from 6 of the 23 regional sites.
- ✓ Outfall Sampling – Oregon City collects samples from 2 of the regional 11 sites.



New Additional Requirements

- Report on runoff flow rates.
- Conduct pesticide monitoring.
- Conduct mercury monitoring.
- Conduct or participate in biological monitoring.

Due Date for Final Plan: June 30, 2013

	\$	Staff	CIP	Training
Monitoring	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>

10. New Permit Element – Hydromod.

Hydromodification Assessment

- Collect relevant data and information.
- Develop strategies to address data gaps.
- Identify strategies to reduce hydromodification.
- Develop approaches to address hydromodification.



Due Date: July 1, 2015

	\$	Staff	CIP	Training
Hydro-modification	●	●		

11. New Permit Element - Retrofits

Retrofit Assessment

Develop a plan to identify and prioritize retrofits of the existing system to address water quality.

- Identify high priority retrofit areas.
- Identify preferred retrofit measures.
- Develop a retrofit priority list.
- Develop a timeline and cost estimate for constructing retrofits.

Due Dates:

Identify one retrofit for construction by July 1, 2014

Develop Overall Plan by July 1, 2015

Initiate construction of retrofit by March 1, 2017

	\$	Staff	CIP	Training
Retrofits	●	●	●	

12. New Permit Element – WLA Attainment

TMDL Waste Load Allocation (WLA) Attainment Evaluation

- Develop a general estimate of management practices and associated costs needed to achieve TMDL WLAs.
- Clarify the ability and feasibility of attaining WLAs based on environmental, technological, and socio-economic factors.

Due Date: November 1, 2015

	\$	Staff	CIP	Training
TMDL	<input type="radio"/>	<input type="radio"/>		

13. New Permit Element – Adaptive Management Documentation

Document the City's Adaptive Management Process

- Submit a description of the process for conducting adaptive management during the permit term.

Due Date: November 1, 2012 (completed)

	\$	Staff	CIP	Training
Adaptive Management	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>

Summary

Permit Requirement	\$	Staff	CIP	Training
IDDE	○	○		○
Industrial/Commercial	○	●		●
Construction Site Runoff		○		○
Education and Outreach	●	●		●
Public Involvement		○		
Post-Construction	●	●		●
Pollution Prevention	●	●	●	●
O&M		●		●
Hydromodification Assessment	●	●		
Retrofit Evaluation	●	●	●	
Monitoring	●	●		○
TMDL Evaluation	●	●		
Adaptive Management	○	○		○

Summary

Upcoming Compliance Deadlines:

- 2013
 - July 1: Industrial/Commercial Inspection Program.
 - July 1: Municipal Facilities Inventory and Stormwater Management Strategies.
 - July 1: Implement Inspection Program for Private Water Quality Facilities.
- 2014
 - July 1: Identify a retrofit project for construction.
 - Nov. 1: Update standards for new development and develop an associated stormwater management manual.
 - Nov. 1: Update enforcement response procedures for Erosion Control.

Summary

Upcoming Compliance Deadlines (continued):

- 2015
 - July 1: Evaluate effectiveness of public education program.
 - July 1: Develop a hydromodification assesement.
 - July 1: Develop a retrofit plan.
 - Nov 1: Submit pollutant load reduction evaluation.
 - Nov 1: Submit WLA Attainment Assessment.
 - Nov 1: Conduct 303(d) pollutant evaluation.
- 2016
 - Sept. 1: Submit a permit renewal application.
 - Sept. 1: Submit TMDL benchmarks.
- 2017
 - Mar. 1: Initiate construction of retrofit project.
 - Nov. 1: Update the City's stormwater master plan.

Questions?

