

# National Pollutant Discharge Elimination System (NPDES) Phase II Permit

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Whatcom County Public Works  
Stormwater Division  
Surface Water Work Session  
June 24, 2014



# Presentation Objectives

- Summarize NPDES Program and Permit
- Highlight 2013 Permit Reporting and Accomplishments
- Summarize Upcoming Requirements of 2013-2018 Permit
  - Inspection & Maintenance of stormwater facilities
  - Low Impact Development (LID)
  - Monitoring
  - Lake Whatcom TMDL
- Schedule and Actions for Council and Administration

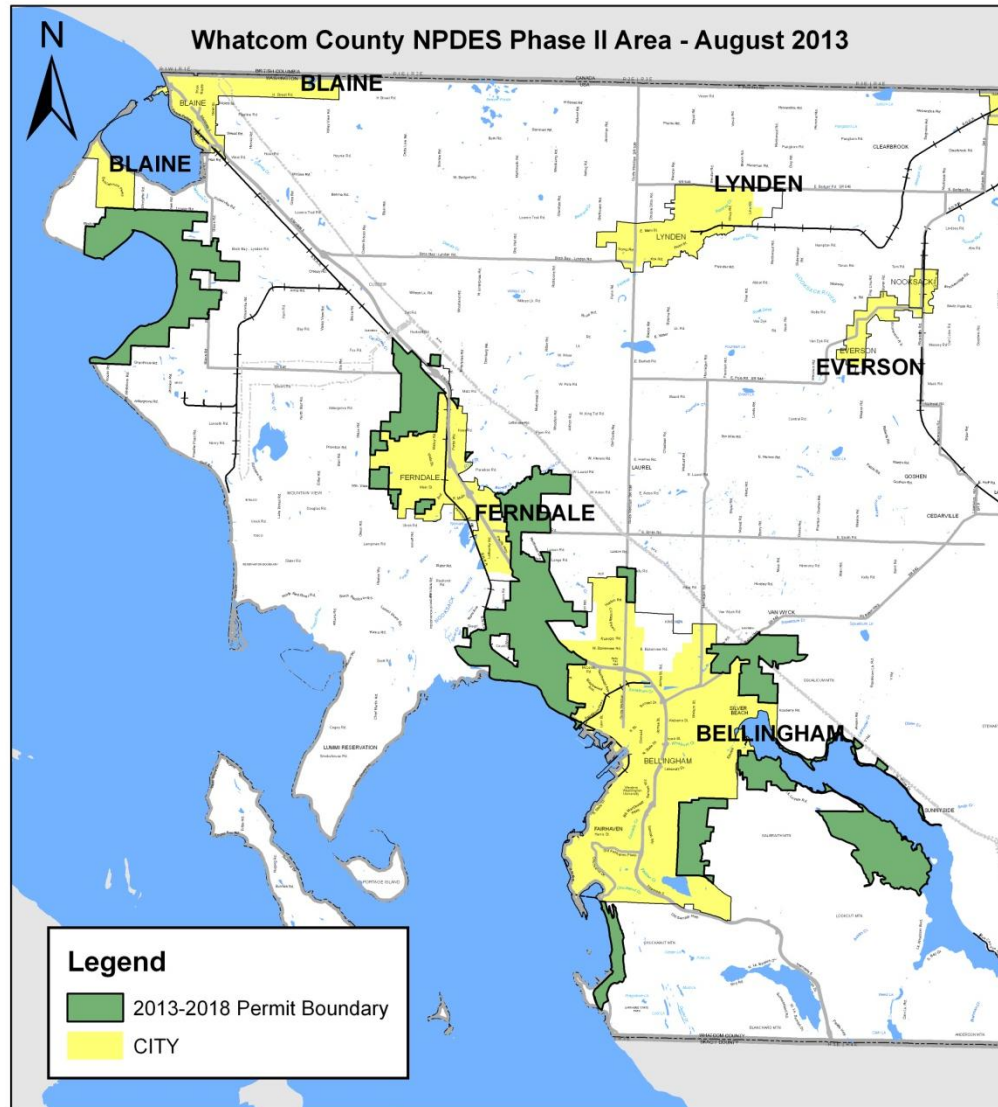
# NPDES Phase II Program

- The Clean Water Act allows the Environmental Protection Agency (EPA) to authorize the National Pollutant Discharge Elimination System (NPDES) Permit Program to state governments.
  - The Clean Water Act
    - State Water Pollution Control Act
      - Western Washington Phase II Municipal Stormwater Permit
- “Phase I” cities serving more than 100,000 people or counties serving more than 250,000 people
  - Counties: Clark, King, Pierce, Snohomish (entire)
  - Cities: Seattle and Tacoma
- “Phase II” cities serving more than 10,000 people or counties serving less than 100,000 people
  - 111 municipalities, including Whatcom County
    - Cities and urban portions of counties
    - “Urban” portions defined by census
- Whatcom County under Permit since 2007
- 2007-2012 Permit (\*With modification in 2009)
- 2012-2013 Permit (\*Continuation of the previous year’s permit)
- 2013-2018 Permit effective August 1, 2013-July 31, 2018

# Whatcom County MS4

- NPDES Phase II Permit regulates discharges from a ***Small Municipal Separate Storm Sewer Systems (MS4s)*** into water bodies of the State (e.g. rivers, lakes, etc.)
  - MS4s are conveyance systems owned and operated by a municipality (e.g. catch basins, curbs, gutters, ditches, storm drains, etc.).
  - Jurisdictions must protect water quality by implementing programs (required by the Permit) that reduce pollutants from MS4 discharges.
- Approximate number of MS4 facilities:
  - 2,700 catch basins (includes Lake Whatcom watershed)
  - 110 miles of ditches
  - 4,000 culverts
  - 50 outfalls
  - 11 pre-treatment and flow control vaults
  - 9 stormwater filter vaults
  - 8 bioinfiltration and treatment swales
- Area covers approximately 15,000 acres

# NPDES Boundary Map



0 1.25 2.5 5 Miles

# Permit Program Areas

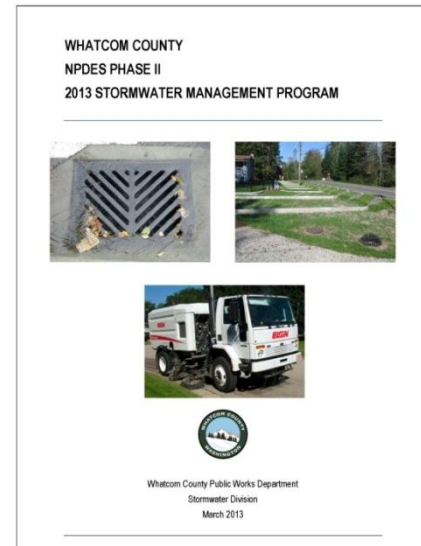
- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Controlling Runoff from New Development, Redevelopment, and Construction Sites
- Municipal Operations and Maintenance
- Compliance with Total Maximum Daily Load (TMDL) Requirements
- Monitoring and Assessment
- Reporting
- Administration

# Permit Reporting

The 2014 Stormwater Management Program (SWMP) is the official document that describes activities performed by Whatcom County in 2013 to comply with Permit requirements, as well as describes what activities are planned for 2014.

It is intended to be a planning and implementation document for the public, elected officials, and County staff.

It is also submitted annually to Department of Ecology as a requirement of the Permit, along with the Annual Compliance Report.



# Implementation Responsibilities

(page 4 of SWMP)

**Table 1-1 SWMP Implementation Responsibilities**

Program Component	Contributing Department(s)	Department Responsibilities
Public Education and Outreach	Public Works-Stormwater Planning & Development Services Health	<ul style="list-style-type: none"> <li>▪ Create outreach opportunities and develop materials for the public</li> </ul>
Public Involvement and Participation	Public Works-Stormwater Planning & Development Services Health	<ul style="list-style-type: none"> <li>▪ Provide opportunities for the public to participate in the development, implementation, and update of the County's SWMP.</li> </ul>
Illicit Discharge Detection and Elimination (IDDE)	Public Works-Stormwater Planning & Development Services Health	<ul style="list-style-type: none"> <li>▪ Respond and investigate illicit discharge reports.</li> <li>▪ Provide education to staff and public on IDDE.</li> <li>▪ Conduct IDDE assessments on County's MS4.</li> </ul>
Controlling Runoff from New Development, Redevelopment, and Construction Sites	Public Works-Engineering Services Planning & Development Services	<ul style="list-style-type: none"> <li>▪ Site plan review for stormwater permits</li> <li>▪ Construction inspections</li> <li>▪ Private stormwater facility inspections</li> </ul>
Pollution Prevention and Operation and Maintenance for Municipal Operators	Facilities Parks Public Works-Maintenance & Operations	<ul style="list-style-type: none"> <li>▪ Implement adopted maintenance standards for municipally-owned facilities</li> <li>▪ Maintain publicly-owned stormwater facilities</li> </ul>
Monitoring	Public Works-Stormwater Public Works-Natural Resources	<ul style="list-style-type: none"> <li>▪ Conduct water quality monitoring of outfalls, water bodies, and streams in Phase II area</li> </ul>



# 2013 Highlighted Accomplishments

For the calendar year 2013:

- Significant outreach efforts
  - Silver Beach Creek Bioswale Tour
  - Homeowner Incentive Program (HIP)
  - Sustainable Landscaping: Gardening Green series
  - Multiple workshops
- Adoption of the Lake Whatcom Overlay District
- Extensive maintenance of municipally-owned stormwater facilities
  - Vaults
  - Swales
  - Catch basins
  - Ditches



# 2013-2018 NPDES Permit

- New requirements for 2013-2018:
  - **Inclusion of the Birch Bay Urban Growth Area** into Permit as of August 1, 2013.
  - **Increased inspection and maintenance** requirements for municipally-owned and private stormwater facilities.
  - **Increased monitoring** requirements of water bodies and stormwater discharge locations.
  - **Incorporation of Low Impact Development (LID)** into regulations development regulations.
- Lake Whatcom TMDL
  - Per Section S7 of the Permit, when the Lake Whatcom TMDL is approved Whatcom County should demonstrate reasonable assurances to manage stormwater from the county-owned and operated MS4 regulated by the Permit that discharges into Lake Whatcom.

# Inspection & Maintenance

## Municipal Operations:

- By August 1, 2017, inspect all municipally-owned catch basins in Phase II area at least once, and every two years thereafter.
  - Approximately 2,700 catch basins
- Conduct maintenance on all municipally-owned catch basins within 6 months of inspection if maintenance standard is exceeded.
  - Maintenance standard set by 2012 Ecology Stormwater Management Manual for Western Washington.

	Acreage	Catch Basins
2012 Permit	15,000	2,200
Birch Bay UGA	500	640
Lake Whatcom Watershed (non-NPDES)	n/a	40
<b>Total</b>	<b>15,500</b>	<b>2,700</b>

# Inspection & Maintenance, cont.

## Development:

- By December 31, 2016, implement annual inspection of all stormwater treatment and flow control facilities for all new development.
- Require maintenance if inspection exceeds standard set by 2012 Ecology Stormwater Management Manual for Western Washington.
  - Current requirement: Annual inspection of all private facilities that are greater than 1 acre or part of a larger development. (e.g. stormwater ponds in subdivisions).
  - New Requirement: All private facilities under current requirement plus all single family residences approved after December 31, 2016.
    - Implementation strategy:
      - Education and outreach of upcoming requirements
      - Develop program requirements (e.g. homeowner inspections, private contractor inspections, or County inspections.)
      - Propose necessary code amendments to implement program

# Monitoring-Field Assessments

- By December 31, 2017, complete field assessment on 40% of MS4, and an average of 12% thereafter.
  - Dry weather inspections of outfalls within the MS4 for the purposes of:
    - Location verification
    - Identifying previously unknown outfalls
    - Detecting illicit discharges
- Field assessments allow County to identify and resolve prohibited discharges before entering into water bodies of the State.

# Monitoring-Regional Requirements

- 2013-2018 Permit has an option to fulfill a monitoring component by opting into a Regional Stormwater Monitoring Program (RSMP).
  - Program administered by Ecology
  - Jurisdictions could pay into fund based on size and extent of MS4
  - Purpose: Understand the effectiveness of Permit regulations by monitoring:
    - Prioritized streams
    - Marine and nearshore sites
    - Stormwater discharge locations
- In December 2013, Whatcom County opted into Regional Stormwater Monitoring Program (RSMP) instead of conducting our own monitoring efforts to comply.
  - Whatcom County pays into an Ecology fund beginning August 2014
    - \$10,476 per year for 4 years, totaling \$ 41,904

# Low Impact Development (LID)

- By December 31, 2016, incorporate, require, and enforce Low Impact Development (LID) principles and best management practices (BMPs) into local development-related codes, rules, and standards.
- General Principles:
  - Conserve and utilize natural areas wherever possible
  - Minimize development impact on hydrology
  - Manage runoff onsite
- Ecology funding statewide trainings on incorporating LID into codes.

# Schedule and Actions

- Staff (ongoing):
  - Department coordination to implement 2013-2018 requirements.
  - Continue to provide public with updates and outreach on the Permit.
- Council:
  - At July Surface Water Work Session, Council will receive an outline of department needs to meet permit requirements.
  - Upcoming inspection and maintenance contracts starting June.
  - In November 2014, Title 20 code amendments tentatively scheduled with the Planning Commission (PC) to align requirements of the permit with current processes. PC recommendations to follow.
  - By December 31, 2016, adopt Low Impact Development Ordinance.
  - By December 31, 2016, amend code to allow for annual inspections of stormwater facilities for single-family residences.



# Questions?

Whatcom County NPDES Phase II website:

<http://www.npdes.whatcomcounty.org/home>

(2014 SWMP, presentation, and links)

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