

National Pollutant Discharge Elimination System (NPDES) Phase II Permit

Whatcom County Public Works
Special Programs Division/NPDES
Natural Resources Committee
March 8, 2016

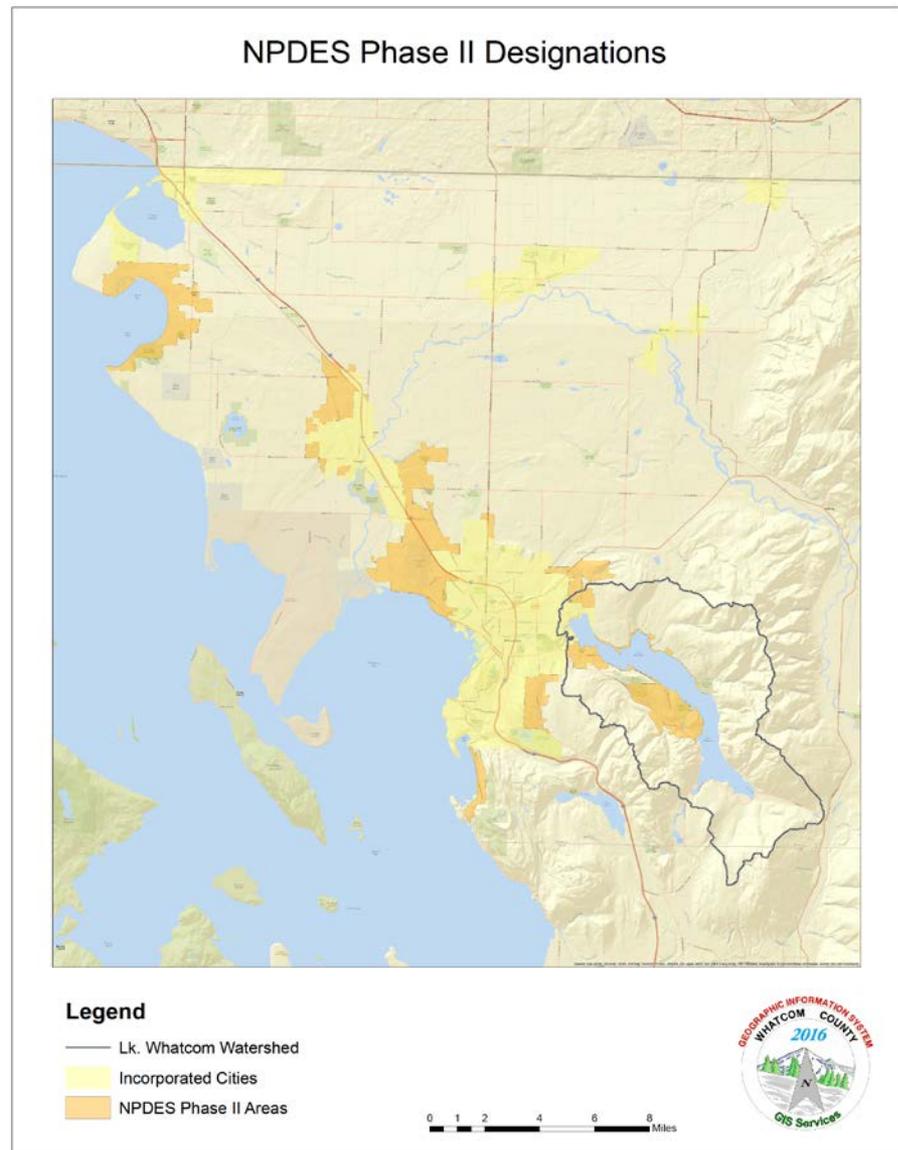


NPDES Phase II Program

- 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

NPDES Boundary Map

- Urban Growth Areas of Bellingham and Ferndale
- Birch Bay UGA
- Sudden Valley
- Portions of North Shore drive starting at Bellingham city limits
- Portion of Chuckanut Drive to Governor's Point



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.
 - Whatcom County's "**point of compliance**" for water quality is where our MS4 enters into a water body of the State.
- Approximate number of MS4 facilities:
 - 2,700 catch basins (includes Lake Whatcom watershed)
 - 110 miles of ditches
 - 4,000 culverts
 - 11 pre-treatment and flow control vaults
 - 14 stormwater filter vaults
 - 9 bioinfiltration and treatment swales
- Area covers approximately 15,000 acres

Permit Contents

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

Other Requirements

- Compliance with Total Maximum Daily Load (TMDL) Requirements
- Monitoring and Assessment
- Reporting

Two-pronged Approach to Permit Compliance

- Whatcom County responsible for specific requirements applicable to County-owned MS4 infrastructure.
 - Ex: Inspections, maintenance, monitoring, field reconnaissance, employee training, etc.
- Whatcom County responsible for creating a predictable path for private property owners to protect water quality.
 - Ex: Educational opportunities (programs or events), adopted ordinances, technical support, etc.

From slide #4: “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.)”

Permit Reporting

The 2016 Stormwater Management Program (SWMP) is the official document that describes activities performed by Whatcom County in 2015 to comply with Permit requirements, as well as describes what activities are planned for 2016.

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

It is submitted annually to Department of Ecology as a requirement of the Permit.

2016 Whatcom County Stormwater Management Program



Permit Reporting, cont.

- 2015 Annual Compliance Report answers specific, quantitative questions of the Permit such as:
 - Number of inspections of catch basins
 - Number of illicit discharges reported and responded to
 - Percentage of MS4 screened for illicit discharges
 - Etc.
- Compliance report and SWMP must be submitted electronically to Ecology no later than March 31st of every year.
- Both documents posted to County website for the public and agencies to view.

Public Education & Outreach

2015:

- 2nd year of conducting private stormwater facility maintenance workshops and Inspections
 - Majority of 100+ private stormwater facilities approved by County are not “required” to provide an annual inspection of facility
 - Birch Bay focus in Spring 2015
- 5th year of conducting “Gardening Green: Sustainable Landscaping” series

2016:

- Measure the understanding and adoption of targeted behaviors for specific audiences in at least one subject area of the permit by February 2, 2016.

Public Involvement & Participation

- Provide opportunity for the Public to comment on the SWMP at public meetings, or emailing/writing comments and submitting them to Public Works.
- Provide website with information regarding the Permit, educational materials regarding water quality issues, and contact information for spill and drainage issues.

Illicit Discharge Detection & Elimination (IDD&E)

2015:

- Initiated coordination of policies and procedures for spill response and reporting for County departments.
- Conducted *pollution prevention and illicit discharge and spill response* training for County staff.
- Responded to 5 incidents or reported illicit discharge.
- Conducted 72 educational and technical visits to commercial businesses regarding illicit discharges, spill prevention, and waste management.

Ongoing:

- Spills and illicit discharge response refinement.
- Tracking spills incidents in data base.

Upcoming:

- Complete field screening for Illicit discharges for at least 40% of the MS4.
 - Completed by December 31, 2017.
- Revise IDD&E ordinance (if necessary) no later than February 2, 2018.

Controlling Runoff From New Development, Redevelopment, & Construction Sites

2015

- Initiated project development and consultant selection for Low Impact Development (LID) requirements in 2015.
 - Regulations adopted by December 31, 2016
- Refine and enhance process and education for private stormwater facility maintenance responsibilities at application review stage.

Ongoing

- Evaluate code to streamline permit process.

Municipal Operations & Maintenance

2015

- Hired a Stormwater Inspector, NPDES Crew Leader and Senior Road Maintenance Worker.
- Of 2,700 catch basins:
 - Inspected 2,108, cleaned 202, repaired 192, and scheduled 14 replacements
- Conducted 2.5 miles of ditch maintenance and repairs.
- Vactored and replaced filter cartridges in pre-treatment/flow control and filter vaults.
- Inspect all municipally-owned and operated catch basins once every 2 years, and apply appropriate maintenance standards.
 - Every 18 months for the Lake Whatcom watershed.
 - Complete schedule by August 1, 2017.
- Upgraded maintenance and inspection database for municipally-owned and operated facilities.

Lake Whatcom Total Maximum Daily Load (TMDL)

- The TMDL becomes is added to Appendix 2 of the Permit after it is approved by the Environmental Protection Agency (EPA)
 - Gives Ecology enforcement authority over the TMDL through the Permit.
- TMDL submitted to EPA November 2015
- For areas within the Lake Whatcom watershed boundary, even outside of the NPDES area, Whatcom County has agreed to implement a more frequent inspection schedule for county-owned facilities (e.g. catch basins).
 - Permit requires inspection at least every other year; the County has agreed to inspect every 18 months.

Monitoring & Assessment

- Whatcom County participates in a Regional Stormwater Monitoring Program (RSMP)
 - Collective fund administered by Ecology that selects various monitoring projects across Puget Sound to evaluate overall health of the Sound, and effectiveness of Permit requirements.
- Ongoing monitoring efforts to evaluate effectiveness of stormwater facilities.
- Tributary monitoring in the Lake Whatcom watershed.

Identified Gaps in Activities

- In 2015, a program assessment identified two permit requirements deficient in achieving compliance:
 - Complete annual inspection of approved stormwater facilities subject to specific facility thresholds.
 - Perform maintenance of county-owned stormwater facilities within the timeframe outlined in the Permit.
- Action taken:
 - Formal notification to the Department of Ecology filed in July 2015 (G20 Noncompliance Notification).
 - Developed plan and timeline to achieve permit requirement.
 - Follow-up with Ecology Permit Coordinator.

Future Audit of Program

- Beginning in December 2015, the Department of Ecology began auditing Phase II communities on Permit implementation and compliance.
 - First community in North Sound region to be audited is Oak Harbor
 - Anticipating second community in North Sound to be chosen in June 2016.
- Audit Entails:
 - Office file verification for multiple program areas to assess compliance.
 - E.g. Policies, procedures manual, inspection tracking, employee training, cost-tracking, etc.
 - Field visit with multiple staff for verification of “on-the-ground” processes and procedures of program areas.
 - E.g. How inspections are conducted and recorded, verification of maintenance conducted on recorded facilities, etc.

Program and County Gains

Permit Compliance is a shared workload among all County departments.

- Increased Coordination
 - Working with County departments, other jurisdictions, and agencies
 - Projects, processes, reporting, training, etc.
 - Example project coordination: Interdisciplinary effort with Parks Department to identify and implement stormwater management related projects/components for Reconveyance and park land within the Lake Whatcom watershed.
- Countywide Applicability
 - Uniform maintenance standards for all county–owned facilities
 - Expanded training throughout County departments
 - Central process for responding to stormwater and water quality issues (e.g. spills, drainage complaints, etc.)
 - Tracking requirements of the Permit help refine future budget requests.

Questions?

This presentation and the DRAFT 2016 Stormwater Management Program (SWMP) document will be made available for public comment until 5:00 p.m. on Tuesday, March 22nd at:

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

Comments can be directed to:

Cathy Craver

Whatcom County Public Works

Special Programs Division-NPDES

ccraver@co.whatcom.wa.us

(360) 778-6299