

# Town of Steilacoom



## Stormwater Management Program

**February 2016**

# 1.0 INTRODUCTION

This document has been prepared to meet the Western Washington Phase II Municipal Stormwater Permit (Permit) requirement for the continued development and updating of a Stormwater Management Program (SWMP). The purpose of the SWMP is to reduce the discharge of pollutants from the municipal stormwater system to the maximum extent practicable and to protect water quality.

The National Pollutant Discharge Elimination System (NPDES) Permit is a federal permit that regulates stormwater and wastewater discharges to waters of the State. While it is a federal permit, the regulatory authority was passed on to the Washington State Department of Ecology (Ecology). In response, Ecology developed and issued the Western Washington Phase II Municipal Stormwater Permit. The Permit was issued by Ecology on January 17, 2007 and was modified on June 17, 2009. The 2007-2011 permit was reissued by Ecology to be effective between September 1, 2012 and August 1, 2013. The permit was modified in 2014 and is being further modified in January 2015. The new permit has an expiration date of July 31, 2018. It is the intent of this SWMP to recognize the 2016 permit requirements and to plan for these requirements where appropriate.

All municipalities affected by the permit must create and implement a SWMP which addresses the following required program elements:

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Controlling Run-Off from New Development, Redevelopment and Construction Sites
- Municipal Operations and Maintenance
- Total Maximum Daily Loads (TMDLs), if applicable to the jurisdiction

The Town of Steilacoom SWMP will be updated annually and submitted with the Town's Annual Report to Ecology. The Town of Steilacoom is posting this document on the Town web site, [http://www.townofsteilacoom.com/town\\_offices/public\\_works.htm](http://www.townofsteilacoom.com/town_offices/public_works.htm), so it can be viewed by the public. Comments on the Town's SWMP can be made by submitting comments in writing to the Town of Steilacoom. Comments can be delivered or mailed to Town of Steilacoom, 1030 Roe St., Steilacoom, WA 98388 ATTN: Mark Burlingame, Public Works Director. Email comments may be sent to: [mark.burlingame@ci.steilacoom.wa.us](mailto:mark.burlingame@ci.steilacoom.wa.us).

## 2.0 PUBLIC EDUCATION AND OUTREACH PROGRAM

The following section describes the Permit requirements related to Public Education and Outreach and the planned activities the Town intends to conduct to meet these requirements.

### 2.1 Permit Requirements

The 2015 Permit (Section S5.C.1) requires the Town to:

- Include an education and outreach program designed to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts and encourages public participation. The target audiences include the general public, engineers/contractors/developers/land use planners/, residents, landscapers and property managers/owners.
- Create stewardship opportunities to participate in such activities as stream teams, storm drain marking, volunteer monitoring, education, and riparian plantings.
- Measure the understanding and adoption of the targeted behaviors for at least one target audience.
- The Town of Steilacoom will begin implementing the requirements of S5.C.1 no later than August 1, 2015.
- The Town of Steilacoom will track the cost or estimated cost of development and implementation of each component of the SWMP.
- The Town of Steilacoom will track the number of inspections, official enforcement actions and types of public education activities as required by each program component.
- The Town of Steilacoom will continue to implement existing stormwater management programs until we begin implementation of the updated stormwater management program in accordance with the terms of the permit, including implementation schedules.
- Coordination among entities covered by this permit will occur as needed, and may include periodic meetings specifically intended to coordinate the proper implementation of stormwater controls and for the control of pollutants as necessary.

## **2.2 Planned Activities**

Future activities planned to meet the Public Education and Outreach requirement of the permit are listed in Table 2-1.

**Table 2-1**

**Planned Activities for Public Education and Outreach Program**

<b>Task ID</b>	<b>Task Description</b>	<b>Schedule</b>
EDUC-1	Engineers/Contractors/Developers/Land Use Planners – Stormwater treatment and flow control BMPs/facilities: Pamphlet passed out with permits	Ongoing
EDUC-2	General public – general impacts of stormwater: Utility bill insert on stormwater topics	Annually
EDUC-3	General public – general impacts: Add Town of Steilacoom contact info to “Puget Sound Starts Here” website	March 2015
EDUC-4	General public – auto maintenance: Flyer for youth fundraising car washes	June 2015
EDUC-5	Engineers/Contractors/Developers/Land Use Planners – Technical standards: Link on Town website to DOE Manual, LID Manual	March 2015
EDUC-6	General public/Residents/Landscapers – LID: Link to Rain Garden Handbook on Town website	December 2015
EDUC-7	Businesses (Restaurants) – prevention of illicit discharges: Deliver restaurant flyer	December 2015
EDUC-8	General public – use and storage of automotive chemicals, etc.: Review info on Town website and update if necessary	December 2015 December 2017
EDUC-9	General public – impacts of IDDE: Puget Sound posters at library/town hall	August 2015
EDUC-10	Measure and evaluate understanding of targeted behavior for at least one targeted audience in at least one subject.	October 2016
EDUC-11	Redirect education if necessary based upon measured results in EDUC-1	January 2017

### 3.0 PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM

The following section describes the Permit requirements related to Public Involvement and Participation and the planned activities the Town intends to conduct to meet these requirements.

#### 3.1 Permit Requirements

The 2015 Permit (Section S5.C.1) requires the Town to:

- Provide ongoing opportunities for public involvement through advisory councils, public hearings, watershed committees, participation in developing rate structures or other similar activities.
- Provide the opportunity for the public to participate in the decision making processes involving the SWMP.
- The SWMP and Annual Report shall be posted to the Town’s website no later than April 30<sup>th</sup> of each year.

#### 3.2 Planned Activities

Future activities planned to meet the Public Involvement and Participation requirement of the permit are listed in Table 3-1.

**Table 3-1**

**Planned Activities for Public Involvement and Participation**

<b>Task ID</b>	<b>Task Description</b>	<b>Schedule</b>
PI-1	Hold public meeting on the 2015 Stormwater Management Program via the Town Council	Early April (each year)
PI-2	Post final SWMP and Annual Report to Town Website	By April 30th (each year)
PI-3	Post final SWMP in local library	By April 30 <sup>th</sup> (each year)
PI-4	Post public opportunities to get involved on Town website (i.e. Adopt-a-Street and volunteer monitoring)	June 2015 and then ongoing

## **4.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION**

The following section describes the Permit requirements related to Illicit Discharge Detection and Elimination (IDDE) and the planned activities the Town intends to conduct to meet these requirements.

### **4.1 Permit Requirements**

The 2015 Permit (Section S6.D.3) requires the Town to:

- Provide ongoing program designed to prevent, detect, characterize, trace and eliminate illicit connections and illicit discharges.
- Field assess at least one high priority waterbody in 2015 for IDDE purposes.
- Update Town stormwater basemap which shall include all known outfalls, receiving waters, stormwater treatment and flow control facilities, conveyances where the outfall is 24-inches in diameter (or larger), and land use.
- Maintain an ordinance that effectively prohibits non-stormwater, illicit discharges into the storm system to the maximum extent allowable under state and federal law. The ordinance shall describe the allowable discharges and shall have an escalating enforcement procedure. This ordinance shall be reviewed and revised (if necessary) by February 1, 2018. The Town shall have a compliance strategy to enforce the ordinance such as public education, technical assistance, source control and/or maintenance of stormwater facilities.
- Implement IDDE program that includes field screening of the system for illicit discharges/connections (40% of the system to be inspected no later than December 31, 2017 and then an average of 12% each year thereafter), procedures for detecting illicit discharges/connection and related enforcement, training for Town staff, and informing businesses of hazards with illicit discharges,
- Publicize hotline for public reporting of spills and illicit discharges.

### **4.2 Planned Activities**

Future activities planned to meet the Illicit Discharge and Detection and Elimination requirement of the permit are listed in Table 4-1.

**Table 4-1**

**Planned Activities for Illicit Discharge Detection and Elimination**

<b>Task ID</b>	<b>Task Description</b>	<b>Schedule</b>
IDDE-1 / EDUC-4	Provide general public with information related to IDDE on Town website	Ongoing
IDDE-2	Maintain stormwater basemap	Ongoing
IDDE-3	Review IDDE ordinance for compliance with the Permit and effectiveness	<ul style="list-style-type: none"> <li>▪ May 2015</li> <li>▪ November 2017 (<i>needs to be adopted by Feb. 1, 2018</i>)</li> </ul>
IDDE-4	Field assess high priority waterbody for IDDE.	<ul style="list-style-type: none"> <li>▪ August 2015</li> </ul>
IDDE-5	Field Screen 10% of system for IDDE each year through 2017 and then 12% of the system each year thereafter (Maintain records of which areas have been field screened and date inspected).	<ul style="list-style-type: none"> <li>▪ August 2015 (First 10%)</li> <li>▪ August 2016 (Next 10%)</li> <li>▪ August 2017 (Next 10%)</li> <li>▪ August 2018 (Next 12% <i>so that 42% of total system inspected by Dec. 31, 2018</i>)</li> <li>▪ August 2019 (<i>Next 12%</i>)</li> </ul>
IDDE-6	Renew IDDE training for field staff and public employees (Track each training session with names of employees and date)	<ul style="list-style-type: none"> <li>▪ June 2015</li> <li>▪ June 2016</li> <li>▪ June 2018</li> </ul>
IDDE-7 / EDUC- 7	Provide businesses with brochures related to IDDE (track number of brochures and date delivered).	<ul style="list-style-type: none"> <li>▪ Restaurants: May 2015</li> <li>▪ General Public: May 2015</li> <li>▪ Construction: Ongoing with permit handouts</li> </ul>

## 5.0 CONTROLLING RUNOFF FROM NEW DEVELOPMENT, REDEVELOPMENT, AND CONSTRUCTION SITES

The following section describes the Permit requirements related to controlling runoff from new development, redevelopment and construction sites. It also describes the planned activities the Town intends to conduct to meet these requirements.

### 5.1 Permit Requirements

The 2015 Permit (Section S6.D.4) requires the Town to:

- Implement and enforce a program to reduce pollutants in stormwater runoff from new development, redevelopment and construction site activities.
- Implement an ordinance to address runoff from these activities to be effective no later than December 31, 2016.
  - The ordinance addressing specific requirements in S6.D4.a through Sd6.D4e shall apply to all applications submitted on or after January 1, 2017 and shall apply to projects approved prior to January 1, 2017 which have not started construction by January 1, 2022.
  - Include legal authority to inspect and enforce maintenance standards for private facilities for new development or redevelopment.
  - Include provision to verify adequate long-term operation and maintenance of stormwater treatment and flow control BMPs/facilities. The ordinance must:
    - Clearly identify the party responsible for maintenance
    - Establish maintenance standards as protective as Chapter 4, Volume V of the *Stormwater Management Manual for Western Washington*.
    - Address annual inspections of all permitted stormwater treatment and flow control BMPs/Facilities unless there are maintenance records to justify a different frequency.
    - Address inspections of all permitted stormwater treatment and flow control BMPs/Facilities and catch basins in new residential developments every six months until 90% of the lots are constructed (or when construction is stopped and the site is fully stabilized).
- At least 80% of scheduled inspections need to be completed to be in compliance with the permit.
- Adopt Minimum Requirements, thresholds and definitions in Appendix 1 of the Permit.
- Implement a site plan review process, inspection and enforcement to meet development standards for both private and public projects.
  - Review all stormwater site plans.



- Inspect all permitted sites that have a high potential for sediment transport.
  - Prior to clearing and construction
  - During construction (for erosion control)
  - After construction (permanent stormwater facilities; maintenance plan in place for treatment/flow control BMPs/facilities). If an inspection identifies an exceedence of the maintenance standard, then the following maintenance should be performed:
    - Inspections to be held within 1 year for typical maintenance, except catch basins
    - Within 6 months for catch basins
    - Within 2 years for maintenance that requires capital construction of less than \$25,000.
  - Maintain records of all inspections, warning letters, notices of violations, and other enforcement records.
- Make available the “Notice of Intent for Construction Activity” and “Notice of Intent for Industrial Activity” to developers.
- Train staff in the site plan review process, inspections, and enforcement. Maintain records of this training and names of staff trained.
- Implement low impact development (LID) code no later than December 31, 2016.
  - Conduct review of LID codes using Integrating LID into *Local Codes: A Guidebook for Local Governments* (Puget Sound Partnership).
  - Submit summary of the review with annual report by March 31, 2017. The summary is to include existing LID requirements, a list of participants (job title, brief job description, department represented), the codes, rules, standards, and revisions made which incorporate LID principles and LID BMPs. It shall be organized into a) measures to minimize impervious surfaces, (b) measures to minimize loss of native vegetation and c) other measures to minimize stormwater runoff.
- Watershed-scale stormwater planning (i.e. provide support to Pierce County if the County chooses a watershed that includes the Town of Steilacoom).

## 5.2 Planned Activities

Future activities planned to meet the Control Runoff from New Development, Redevelopment and Construction Sites requirement of the permit are listed in Table 5-1.

**Table 5-1**

### **Planned Activities for Controlling Runoff from New Development, Redevelopment and Construction Sites**

<b>Task ID</b>	<b>Task Description</b>	<b>Schedule</b>
CTRL-1	Review site plans for compliance with SMC 13.50 (Keep track of number of site plans reviewed)	Ongoing
CTRL-2	Provide post construction inspections prior	Ongoing

<b>Task ID</b>	<b>Task Description</b>	<b>Schedule</b>
	to approval for compliance with SMC 13.50 (Maintain inspection records; see CTRL-4).	
CTRL-3	Inspect constructions sites prior to and during construction for erosion control (Maintain inspection records; see CTRL-4).	Ongoing
CTRL-4	Maintain records of inspections (Include name of inspector, date, findings, warning letters, notices of violations, enforcement actions).	Ongoing <i>(Need to complete 80% of scheduled inspections)</i>
CTRL-5	Provide annual inspections of all stormwater treatment and flow control BMPs/facilities. <ul style="list-style-type: none"> <li>▪ Maintain inspection records; see CTRL-4.</li> <li>▪ Document if a reduced inspection frequency is used.</li> <li>▪ If inspection reveals that a maintenance standard is not being maintained, need to perform maintenance: <ul style="list-style-type: none"> <li>○ within 1 year (all facilities except catch basins)</li> <li>○ within 6 months (catch basins) or</li> <li>○ within 2 years (maintnenace that requires capital construction of less than \$25,000).</li> </ul> </li> </ul>	Ongoing <i>(Need to complete 80% of scheduled inspections)</i>
CTRL-6	Train staff in the site plan review process, inspections, and enforcement. Maintain records of this training and names of staff trained.	Ongoing/New Hires <ul style="list-style-type: none"> <li>▪ June 2015</li> <li>▪ June 2017</li> <li>▪ June 2018</li> </ul>
CTRL-7	Make available the “Notice of Intent for Construction Activity” and “Notice of Intent for Industrial Activity” to developers.	Ongoing
CTRL-8	Review and revise ordinance for maintenance standard compliance	May 2016 <i>(Due Dec. 31, 2016)</i>
CTRL-9	Implement new LID codes (per LID Guidebook): Step 1 (assemble team), Step 2 ( understand general topics to address), and Step 3 (review existing codes and standards)	March 2016
CTRL-10	Implement new LID codes (per LID Guidebook): Step 4 (amend existing code and develop new code)	May 2016 – May 2017

<b>Task ID</b>	<b>Task Description</b>	<b>Schedule</b>
CTRL-11	Implement new LID codes (per LID Guidebook): Step 5 (public review and adoption process)	May 2016 – November 2016
CTRL-12	Implement new LID codes: Step 6 (implementation per LID Guidebook) and Summary Report (per Permit requirement): Existing LID requirements, a list of participants (job title, brief job description, department represented), the codes, rules, standards, and revisions made which incorporate LID principles and LID BMPs. It shall be organized into a) measures to minimize impervious surfaces, (b) measures to minimize loss of native vegetation and c) other measures to minimize stormwater runoff.	January 2016 through December 2016 <i>[Implementation due by Dec. 31, 2016]</i>
CTRL-13	Summary Report (per Permit requirement). Report to include: <ul style="list-style-type: none"> <li>▪ Existing LID requirements</li> <li>▪ A list of participants (job title, brief job description, department represented),</li> <li>▪ The codes, rules, standards, and revisions made which incorporate LID principles and LID BMPs.</li> <li>▪ Organized into a) measures to minimize impervious surfaces, (b) measures to minimize loss of native vegetation and c) other measures to minimize stormwater runoff</li> </ul>	December 2016 <i>[Due with March 31, 2017 annual report]</i>

## 6.0 MUNICIPAL OPERATIONS AND MAINTENANCE

The following section describes the Permit requirements related to the Town's stormwater operation and maintenance practices. It also describes the planned activities the Town intends to conduct to meet these requirements.

### 6.1 Permit Requirements

The 2015 Permit (Section S5.C.5) requires the Town to:

- Implement an operations and maintenance (O&M) program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.
- Establish maintenance standards as protective as Chapter 4, Volume V of the *Stormwater Management Manual for Western Washington*.
- If an inspection identifies an exceedence of the maintenance standard, then the following maintenance should be performed:
  - Inspections to be held within 1 year for typical maintenance, except catch basins
  - Within 6 months for catch basins
  - Within 2 years for maintenance that requires capital construction of less than \$25,000.
- Perform annual inspections and take appropriate maintenance actions of all permitted stormwater treatment and flow control BMPs/Facilities unless there are maintenance records to justify a different frequency.
- Spot check and if necessary, repair potentially damaged permanent stormwater treatment and flow control BMPs/facilities after major storm events (24 hour storm event with a 10 year or greater recurrence interval).
- Inspect (and clean if necessary) all catch basins and inlets owned by the Town at least once no later than August 1, 2017 and every two years thereafter.

Alternatives to this schedule include:

- Revised inspection frequency allowed if maintenance records for double the length of the proposed inspection frequency warrant a reduced inspection frequency. If these records are not available, certified (per G19), written statements to document a specific, less frequent inspection schedule may be submitted and shall be based on actual inspection and maintenance experiences.
- Conduct inspections by "circuit basis" whereby 25% of catch basins and inlets within each circuit are inspected. Include an inspection of the catch basin immediately upstream of any system outfall if applicable. Clean all catch basins within a given circuit for which the inspection indicates cleaning is needed.
- Clean all pipes, ditches, catch basins and inlets within a circuit once during the permit term. Circuits selected for this alternative must drain to a single point.

- Implement practices, policies and procedures to reduce stormwater impacts associated with runoff from all lands owned by the Town including streets, parking lots, roads highways, buildings, parks, open space, road right-of-ways, maintenance yards, and stormwater treatment and flow control BMPs/facilities.
  - The following activities are to be addressed: pipe cleaning, cleaning of culverts that convey stormwater in ditch systems, ditch maintenance, street cleaning, road repair and resurfacing (including pavement grinding), snow and ice control, utility installation, pavement striping maintenance, maintaining roadside areas, including vegetation management, dust control, applications of fertilizers/pesticides/herbicides (including reducing nutrients and pesticides using alternatives that minimize environmental impacts), sediment and erosion control, landscape maintenance and vegetation disposal, trash and pest waste management, and building exterior cleaning and maintenance.
- Implement training program for employees on O&M practices. Follow up training and documentation of training shall be conducted. A list of trained staff shall be maintained.
- Implement a Stormwater Pollution Prevention Plan (SWPPP) for all heavy equipment maintenance or storage yards and material storage facilities owned by the Town. A schedule for implementation of structural BMPs and periodic visual observation of discharges from the facility to evaluate the effectiveness of the BMP shall be included in the SWPPP. Generic SWPPPs applicable to multiple sites may be used.
- Maintain records of inspection and maintenance or repair activities.

## **6.2 Planned Activities**

Future activities planned to meet the Municipal Operations and Maintenance requirement of the permit are listed in Table 6-1.

**Table 6-1**

**Planned Activities for Municipal Operations and Maintenance**

<b>Task ID</b>	<b>Task Description</b>	<b>Schedule</b>
O&M-1	Maintain records of inspections and maintenance activities.	Ongoing
O&M-2	Provide annual inspections of all stormwater treatment and flow control BMPs/facilities. <ul style="list-style-type: none"> <li>▪ Maintain inspection records; see O&amp;M-1.</li> <li>▪ Document if a reduced inspection frequency is used.</li> <li>▪ If inspection reveals that a maintenance standard is not being maintained, need to perform maintenance:               <ul style="list-style-type: none"> <li>○ within 1 year (all facilities except catch basins)</li> <li>○ within 6 months (catch basins) or</li> <li>○ within 2 years (maintnenace that requires capital construction of less than \$25,000).</li> </ul> </li> </ul>	Ongoing
O&M-3	Spot check treatment and flow control facilities/BMPs and repair if necessary.	After 24-hour/10-year storms (Ongoing)
O&M-4	Train staff in O&M operations, inspection procedures, reporting water quality concerns, and on efforts to reduce pollutants to runoff. Maintain records of this training and names of staff trained.	Ongoing/New Hires <ul style="list-style-type: none"> <li>▪ June 2015</li> <li>▪ June 2016</li> <li>▪ June 2018</li> </ul>
O&M-5	Review maintenance related ordinance to ensure Chapter 4, Volume 5 of the Ecology Stormwater Manual has been implemented	May 2015
O&M-6	Review Town’s O&M plan to ensure it meets S5.C.5.f (O&M activities)	By December 2015
O&M-7	Review Town’s SWPPP to ensure it meets S5.C.5.h (i.e. includes a schedule of structural BMPs and includes periodic visual observation of discharges to evaluate effectiveness of BMPs in place)	By December 2015
O&M-8	Inspect 20% of catch basins and inlets and clean if required.	By July 31, 2015
O&M-9	Inspect all catch basins and inlets	All inspected by Aug 1, 2017

## 7.0 MONITORING

The following section describes the Permit requirements related to monitoring. It also describes the planned activities the Town intends to conduct to meet these requirements.

### 7.1 Permit Requirements

The 2015 Permit (Section S8) requires the Town to:

- Describe any monitoring related studies conducted throughout the year in the Annual Report.
- Reporting involved with the Regional Stormwater Management Program is not necessary as part of the Annual Report. The regional program includes status and trends monitoring, stormwater management program effectiveness studies, and source identification/diagnostic monitoring.

### 7.2 Planned Activities

Future activities planned to meet the monitoring requirement of the permit are listed in Table 7-1.

**Table 7-1**

**Planned Activities for TMDL Requirements**

<b>Task ID</b>	<b>Task Description</b>	<b>Schedule</b>
MON-1	Opt into Regional Stormwater Management Program by paying the following fees: <ul style="list-style-type: none"> <li>▪ Status and Trends Monitoring: \$1,538</li> <li>▪ Stormwater Program Effectiveness: \$2,563</li> <li>▪ Source Identification and Diagnostic Monitoring: \$238</li> </ul>	Aug. 15 <sup>th</sup> , each year <i>(Beginning in 2014)</i>
MON-2	Describe any stormwater monitoring conducted for the year in the Annual Report	By March 31 <sup>st</sup> , each year <i>(Beginning in 2014)</i>

## 8.0 REPORTING REQUIREMENTS

The following section describes the Permit requirements related to reporting. It also describes the planned activities the Town intends to conduct to meet these requirements.

### 8.1 Permit Requirements

The 2015 Permit (Section S9) requires the Town to:

- Submit an Annual Report by March 31<sup>st</sup> of each year with the first reporting period being from January 1, 2014 to December 31, 2014. The report will include:
  - Copy of the current SWMP
  - Annual Report Form (per DOE)
  - Attachments (summaries, descriptions, reports, etc.)
  - Certification and signature
  - Notification of any annexations, incorporations or jurisdictional boundary changes
- Keep all records related to the permit and the SWMP for at least five years.
- All records related to the permit shall be available to the public at reasonable times during business hours.

### 8.2 Planned Activities

Future activities planned to meet the reporting requirement of the permit are listed in Table 8-1.

**Table 8-1**

**Planned Activities for Reporting Requirements**

<b>Task ID</b>	<b>Task Description</b>	<b>Schedule</b>
REP-1	Submit Annual Report	March 31 <sup>st</sup> , each year <i>(1<sup>st</sup> report due March 31, 2014)</i>