



**NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) MUNICIPAL  
SEPARATE STORM SEWER SYSTEM (MS4) PERMIT**

**PROPOSED STORMWATER MANAGEMENT PLAN**

**Port of Portland  
7200 NE Airport Way  
Portland, OR 97218**

**July 31, 2015**

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## **1.0 INTRODUCTION**

The Oregon Department of Environmental Quality (DEQ) regulates stormwater from Port of Portland (Port) property through the National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Discharge Permit No. 101314. This Stormwater Management Plan (SWMP) describes activities specifically related to implementation of the Port's MS4 permit conditions.

The primary component of the SWMP is a program of Best Management Practices (BMPs). These BMPs are actions the Port will take to reduce the introduction of pollutants into waters of the state through the MS4, to the maximum extent practicable, in order to protect water quality and satisfy requirements of the Clean Water Act.

The bulk of the plan is included in Section 5.0, which includes summary tables of the Port's BMPs. The remaining sections of the plan are organized as follows: Section 2.0 includes a description of the Port's legal authority to implement stormwater management programs; Section 3.0 discusses the permit area and the co-permittees; and Section 4.0 discusses SWMP revisions and reporting requirements.

## **2.0 LEGAL AUTHORITY TO IMPLEMENT THE PROGRAMS OUTLINED IN THE SWMP**

The Port has authority to implement programs outlined in the SWMP through ordinance, permits, and contracts.

The Port has statutory authority to enact ordinances to regulate stormwater systems that it owns, operates, maintains, or controls. On March 11, 1992, the Port Commission adopted Ordinance No. 361, which provides the Port with legal authority over specific activities conducted by persons occupying land owned by the Port (i.e. tenants). Ordinance No. 361 prohibits such persons from making, causing, or allowing an illicit discharge into a storm sewer owned or operated by the Port. Section 4 of the Ordinance requires written permission from the Port before connecting to a Port storm sewer. Section 5 of the Ordinance authorizes the Port to inspect the land and storm sewers for violations of the Ordinance or applicable law that governs the conveyance or disposal of stormwater. In addition, the Ordinance provides the Port with authority to control the contribution of pollutants to storm sewers owned or operated by the Port; the quality of stormwater discharged from the sites of industrial activity on land owned by the Port; and the discharge to storm sewers owned or operated by the Port of pollutants from spills, dumping, or the disposal of materials other than stormwater.

In addition to the Ordinance, the Port has legal authority to control the contribution of pollutants to the municipal storm sewer system through contracts with its tenants. The lease agreements require the lessees to comply with the Port's MS4 permit. Some properties also have industrial stormwater permits, with the Port and tenants as co-permittees. Through these regulatory and contractual mechanisms, the Port is working with tenants and users of Port facilities to implement and evaluate BMPs that will control the contribution of pollutants to the Port's MS4.

## **3.0 DESCRIPTION OF THE PERMIT AREA AND CO-PERMITTEES**

The Port is a co-permittee on the Portland MS4 permit with the City of Portland (City). The City is the lead co-permittee. The City and the Port must each implement all applicable provisions in their specific SWMP and the associated Monitoring Program. Applicable provisions are those related to requirements, programs, and operation of an MS4 system over which the co-permittee has jurisdiction or control. This section provides description of the Port's portion of the permit area, Port permit responsibilities, and coordination as co-permittees with the City of Portland.

### 3.1 Port of Portland Permit Area

The Port owns and operates a portion of the MS4 within the City of Portland Urban Services Boundary (USB). The Port's MS4 permit regulates the discharge of stormwater through the Port's MS4 within the Port's MS4 permit area. The Port's MS4 permit area includes all current, Port-owned properties within the USB. Port owned property includes three operating areas: 1) Portland International Airport (PDX); 2) four marine terminals; and 3) several industrial parks occupied by commercial and industrial tenants. Port owned property also includes undeveloped land.<sup>1</sup>

### 3.2 Summary of Port Permit Responsibility and Coordination with Co-Permittees

The Port's MS4 permit responsibility is influenced by two factors. First, the City generally conducts activities on a City-wide basis with some activities overlapping with the Port's MS4 service area. As a result, the Port and City coordinate on some permit requirements through an Intergovernmental Agreement (IGA). Second, the Port is unique in that the Port only has jurisdiction over land it actually owns. The Port's land use is primarily industrial, with no residential area, and it encompasses large-scale parcels throughout the City. Some of the Port's operating areas (marine terminals, airport facilities, or industrial parks) are also regulated under NPDES general industrial stormwater permits (1200-Z or 1200-COLS permits) and the associated Stormwater Pollution Control Plans (SWPCP). In addition, DEQ regulates stormwater associated with Port construction activities on Port property pursuant to the Port's NPDES 1200-CA Permit and deicing activities at Portland International Airport under NPDES permit number 101647. These permits and plans contain requirements that overlap with the MS4 permit requirements.

There is a complex relationship between the Port's management of stormwater through the Port's MS4 within the City's USB, the City's overlapping stormwater management activities, and DEQ's regulation of stormwater on some Port property through industrial, deicing or construction stormwater permits. (Table 3-1 illustrates permit responsibilities, how they align with MS4 permit requirements, the City's activities and industrial stormwater permit requirements and stormwater management activities conducted by the Port or Port tenants.

Figure 3-1 illustrates the Port's permit areas with respect to the Port's MS4 permit, industrial stormwater permits, tenant leases and tenant-managed industrial stormwater permits.

Table 3-1 lists the MS4 permit requirement along the left hand column. Responsibility descriptions for each MS4 permit requirement are split into two categories: (1) Port MS4 permit service areas that do not have industrial stormwater permits (1200-Z or 1200-COLS permits), and (2) Port MS4 permit service areas where the Port or its tenant has a general industrial stormwater permit (1200-Z or 1200-COLS permits). The two responsibility categories are further split between tenants and Port operations. Port operations with industrial stormwater permits include operations at PDX and Terminal 2. Port operations without industrial stormwater permits include T4, the Navigation Base and the facilities in Rivergate. Tenants throughout Portland International Center, Cascade Station, the marine terminals and in the Rivergate industrial district may also hold industrial stormwater permits based on the activities conducted on their leasehold.

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<sup>1</sup> For reference, all Port property within the City USB is included in the MS4 permit area; however, not all Port property currently discharges into the Port's MS4. Some properties do not have a stormwater system, i.e., stormwater infiltrates into the ground or flows to surface water via sheet flow, and some properties discharge to the City MS4.

Some of the requirements outlined in the general industrial stormwater permits, and hence the respective BMPs implemented pursuant to the required Stormwater Pollution Control Plans, are similar to requirements outlined in Schedule A of the MS4 permit, specifically for operations and maintenance activities, certain illicit discharge activities, spill response, and industrial monitoring. Therefore, for Port operating areas (Terminal 2 and PDX) and tenants with an industrial stormwater permit, some of the MS4 permit requirements related to the above activities are addressed through implementation of the industrial stormwater permits. MS4 permit requirements that are addressed through implementation of the industrial stormwater permit requirements are shaded gray in Table 3-1.

The Port's MS4 permit area lies entirely within the City of Portland USB; therefore, a number of activities that the City conducts to meet the MS4 permit requirements overlap with activities the Port would also conduct under the MS4 permit requirements. Certain requirements are more effectively accomplished under jurisdiction of the City due to the City's broad legal authority city-wide implemented through the land use system. As a result, the Port and City coordinate certain activities to gain efficiencies and avoid duplication of effort. Specifically, planning and implementation of controls for new development, pretreatment inspections, and stormwater monitoring are generally conducted under the City's jurisdiction as opposed to the Port's. As a result, some permit requirements do not apply to the Port as they are covered by the City's activities. These requirements are also shaded in gray in Table 3-1. Areas left unshaded in Table 3-1 are addressed by BMPs in the Port's SWMP. The unshaded areas list the specific BMPs that meet the permit requirements.

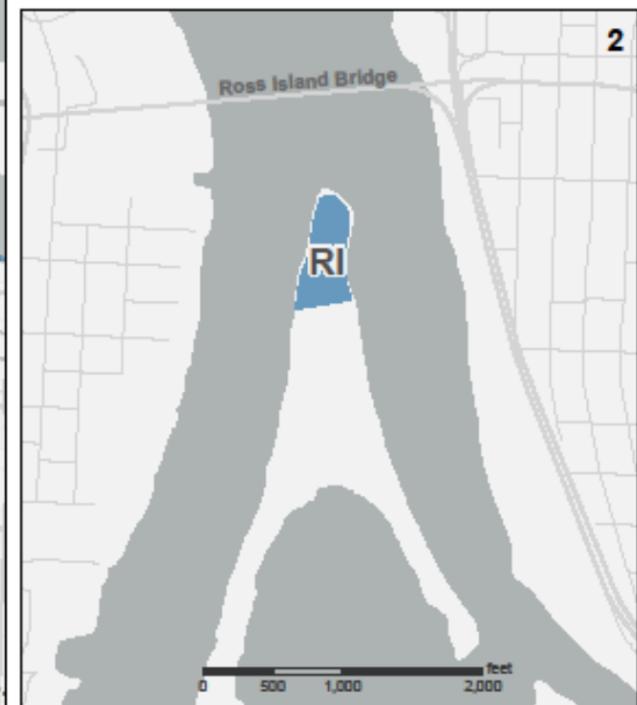
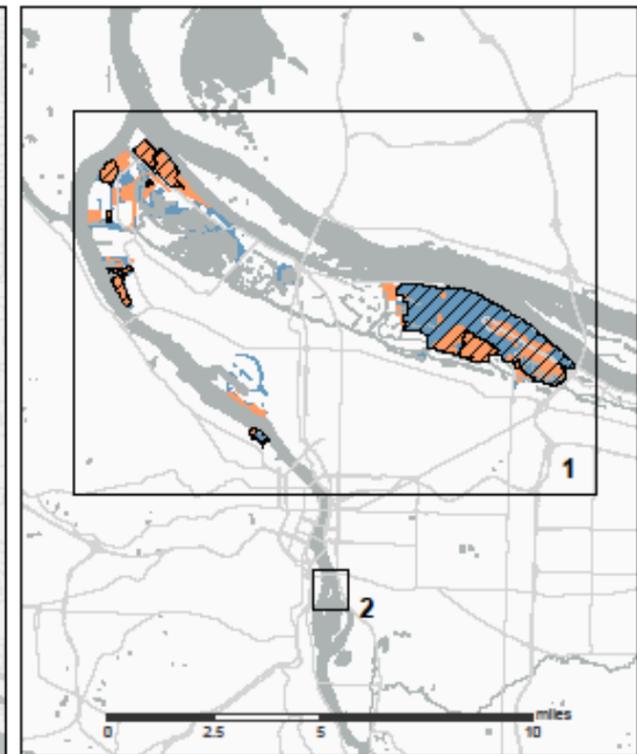
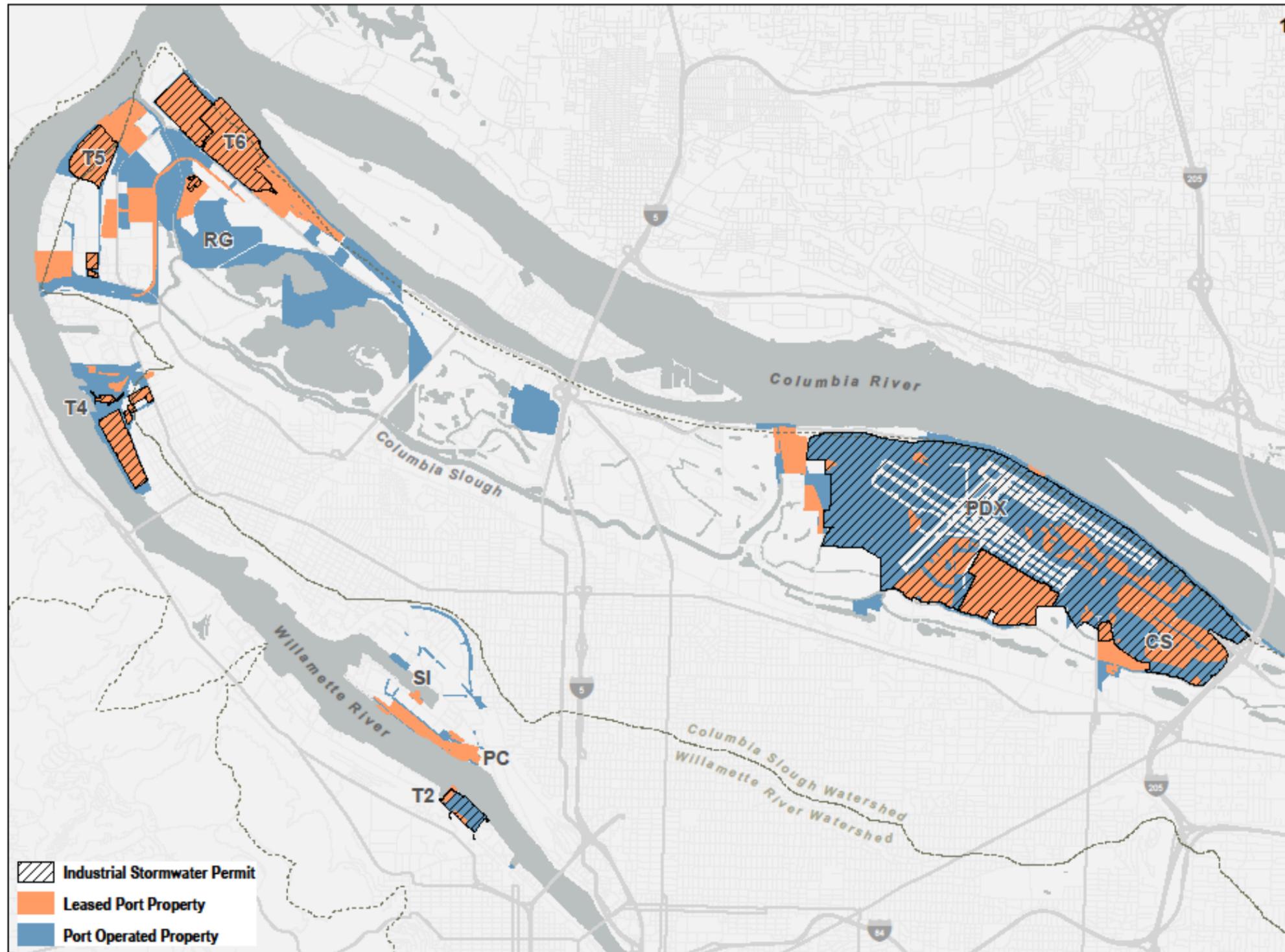
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**TABLE 3-1. Port of Portland MS4 Permit Requirements and Responsibilities**

MS4 Permit SWMP Requirements	MS4 Service Areas Not Covered Under Industrial Stormwater Permits		MS4 Service Areas With Industrial Stormwater Permits	
	Tenants	Port Operations	Tenants	Port Operations
<b>Schedule A.4.a Illicit Discharge Detection and Elimination</b>				
i. Prohibit, through ordinance or other regulatory mechanism, illicit discharges	BMP: Implement the Illicit Discharge Detection and Elimination Program			
ii. Describe enforcement response procedures	BMP: Implement the Illicit Discharge Detection and Elimination Program			
iii. Develop pollutant parameter action levels	BMP: Conduct Dry-Weather Field Screening			
iv. Conduct annual dry weather inspection activities including field screening	BMP: Conduct Dry-Weather Field Screening			
v. Identify response procedures to investigate portions of the MS4 where relevant information indicates the likely presence of illicit discharges	BMP: Conduct Dry-Weather Field Screening			
vi. Maintain a system for documenting and procedures for responding to illicit discharges	BMP: Conduct Dry-Weather Field Screening			
vii. Appropriate action for illicit discharge removal	BMP: Implement the Illicit Discharge Detection and Elimination Program		Illicit Discharges are covered under 1200-Z (7/1/2012) and COLS (10/1/2011) permits	
			BMP: Implement the Illicit Discharge Detection and Elimination Program	
viii. Spill prevention and response	BMP: Implement a Spill Response Program for Port Operated Property		Spill response activities are covered under 1200-Z (7/1/2012) and COLS (10/1/2011) permits – Schedule A.3.c.ii	
ix. Notify affected municipality of illicit discharge originating within the permittee's permit area	BMP: Implement the Illicit Discharge Detection and Elimination Program			
x. Notify responsible municipality of illicit discharge affecting the permittee, originating outside of the permittee's permit area	BMP: Implement the Illicit Discharge Detection and Elimination Program			
xi. Maintain maps showing major MS4 outfalls	BMP: Conduct Dry-Weather Field Screening			
xii. Unless identified as a significant source of pollutants, the following non-stormwater discharges are not considered illicit discharges (see Schedule A.4.a.xii)	BMP: Implement a Water Line Flushing Procedure			
<b>Schedule A.4.b Industrial and Commercial Facilities</b>				
i. Screen existing and new industrial facilities	BMP: Screen Existing and New Industrial Facilities		These areas are already covered by an industrial stormwater NPDES permit	
ii. Notify DEQ and facility if subject to an industrial NPDES permit	BMP: Screen Existing and New Industrial Facilities		These areas are already covered by an industrial stormwater NPDES permit	
iii. Inspection of industrial or commercial areas identified as significant sources of pollutants	BMP: Implement an Inspection Program for Significant Pollutant Source Areas			
<b>Schedule A.4.c Construction Site Runoff Control</b>				
i. Ordinance that requires erosion and sediment controls	Implemented through the City of Portland's erosion control ordinance; may also be covered under a 1200-C permit	Implemented through the Port's 1200-CA Permit, the City of Portland's erosion control program and related contract specifications	Implemented through the City of Portland's erosion control ordinance; may also be covered under a 1200-C permit	Implemented through the Port's 1200-CA Permit, related contract specifications City of Portland's erosion control program
ii. Require construction site operators to develop site plans and implement erosion and sediment control BMPs				
iii. Require construction site operators to prevent/ control non-stormwater waste				
iv. Erosion control site plan review				
v. Perform on-site inspections				
vi. Maintain enforcement response procedures				

MS4 Permit SWMP Requirements	MS4 Service Areas Not Covered Under Industrial Stormwater Permits		MS4 Service Areas With Industrial Stormwater Permits	
	Tenants	Port Operations	Tenants	Port Operations
<b>Schedule A.4.d Education and Outreach</b>				
i. Implement a documented public education and outreach strategy	BMP: Implement Public Education Measures to Protect Stormwater Quality.			
ii. Provide educational material to the community or conduct equivalent outreach activities	BMP: Implement a Tenant Stormwater BMP Program	N/A	BMP: Implement a Tenant Stormwater BMP Program	N/A
	BMP: Implement Public Education Measures to Protect Stormwater Quality			
iii. Provide public education on pesticide, herbicide, fertilizer, and other chemicals	BMP: Require Training and Licensing for Staff Conducting Pest Management Activities BMP: Implement a Tenant Stormwater BMP Program			
iv. Provide public education on proper operation and maintenance of privately-owned/ operated stormwater quality facilities	BMP: Implement a Tenant Stormwater BMP Program BMP: Implement a Program for the Tracking and Maintenance of Private Structural Controls			
v. Provide notice to construction site operators regarding training for erosion and sediment control	BMP: Provide Erosion Prevention and Sediment Control Training for Construction Inspectors			
vi. Conduct/ participate in a public education effectiveness evaluation	BMP: Participate in a Public Education Effectiveness Evaluation			
vii. Include training for municipal employees involved in MS4 activities	BMP: Implement a Spill Response Training Program BMP: Implement a Municipal Staff Training Program for Stormwater Pollution Prevention BMP: Require Training and Licensing for Staff Conducting Pest Management Activities		Covered under 1200-Z (7/1/2012) and COLS (10/1/2011) permits – Schedule A.3.c.iv	
viii. Promote, publicize, and facilitate public reporting of illicit discharges	BMP: Implement the Illicit Discharge Detection and Elimination Program			
<b>Schedule A.4.e Public Involvement and Participation</b>				
e. Implement a public participation process for receiving and considering comments on the SWMP and TMDL benchmarks	BMP: Provide for Public Participation with SWMP and Benchmark Submittals			
e. Implement a public participation approach that provides opportunities for the public to effectively participate in the implementation of the co-permittee's stormwater management program	BMP: Implement a Public Participation Approach that Provides Opportunities for the Public to Effectively Participate in the Implementation of the Stormwater Management Program			
<b>Schedule A.4.f Post-Construction Site Runoff</b>				
i. Implement a post-construction stormwater pollutant and runoff control program	BMP: Port of Portland Stormwater Design Manual and City of Portland Stormwater Design Manual			
ii. Identify, and where practicable, minimize or eliminate ordinance, code and development standard barriers	BMP: Port of Portland Stormwater Design Manual and City of Portland Stormwater Design Manual			
iii. Develop or reference an enforceable post-construction stormwater management manual	BMP: Port of Portland Stormwater Design Manual and City of Portland Stormwater Design Manual			
vi. Review, approve, and verify proper implementation of post-construction site plans	BMP: Port of Portland Stormwater Design Manual and City of Portland Stormwater Design Manual			

MS4 Permit SWMP Requirements	MS4 Service Areas Not Covered Under Industrial Stormwater Permits		MS4 Service Areas With Industrial Stormwater Permits	
	Tenants	Port Operations	Tenants	Port Operations
v. Require off-site stormwater management for locations limited in their ability for on-site stormwater capture and treatment or flow reduction	BMP: Port of Portland Stormwater Design Manual and City of Portland Stormwater Design Manual			
vi. Describe inspection and enforcement response procedures to address compliance issues with post-construction stormwater management performance standards	BMP: Port of Portland Stormwater Design Manual and City of Portland Stormwater Design Manual			
<b>Schedule A.4.g Pollution Prevention for Municipal Operations</b>				
i. Operate and maintain public streets, roads, and highways	The City of Portland is responsible for operation and maintenance of the public right-of-way.			
	BMP: Implement a Street and Vehicle Maneuvering Area Cleaning and Maintenance Program			
ii. Implement a program to control the use and application of pesticides	BMP: Limit Landscape Maintenance Activities Impact on Stormwater BMP: Require Appropriate Training and Licensing for Pest Management Activities. BMP: Implement a Tenant Stormwater BMP Program			
iii. Inventory, assess, and implement a strategy to reduce the impact of stormwater runoff from municipal waste facilities not already covered by a 1200 series permit	No tenant properties currently accommodate municipal facility waste	BMP: Implement a Street and Vehicle Maneuvering Area Cleaning and Maintenance Program. BMP: Implement a Stormwater System Cleaning and Maintenance Program (These BMPs include tasks to decant water from municipal wastes and discharge wastewaters to the sanitary system)	Covered under 1200-Z (7/1/2012) and COLS (10/1/2011) permits <sup>1</sup> - Schedule A.3.c.i (1200-Z) and Schedule A.3.c.i (1200-COLS)	Covered under 1200-Z (7/1/2012) and COLS (10/1/2011) permits - Schedule A.3.c.i (1200-Z) and Schedule A.3.c.i (1200-COLS)
iv. Implement controls to limit infiltration of seepage from the municipal sanitary system	BMP: Implement a Program to limit infiltration from Port-owned sanitary sewer system to the MS4			
v. Implement a strategy to prevent or control the pollutant discharge from fire fighting training activities	The only fire fighting training facility is located at PDX, which is covered by a 1200-COLS permit.			
vi. Retrofitting flood control facilities	The City of Portland manages water quality improvements on a master planning level.			
<b>Schedule A.4. h Structural Stormwater Controls Operations and Maintenance</b>				
i. Implement a program to verify structural control facilities and controls are inventoried, mapped, inspected, operated and maintained	BMP: Implement a Stormwater System Cleaning and Maintenance Program BMP: Implement a Program for Tracking and Maintenance of Private Structural Controls		Covered under 1200-Z (7/1/2012) and COLS (10/1/2011) permits – Schedule A.3.c.iii (2-3)	Covered under 1200-Z (7/1/2012) and COLS (10/1/2011) permits – Schedule A.3.c.iii (2-3)
ii. Develop and implement a plan or approach to guide the long-term maintenance and management of all publically-owned and privately owned stormwater facilities	BMP: Implement a Stormwater System Cleaning and Maintenance Program BMP: Implement a Tenant Stormwater BMP Program		Covered under 1200-Z (7/1/2012) and COLS (10/1/2011) permits <sup>1</sup> - Schedule A.3.c.iii (2-3)	Covered under 1200-Z (7/1/2012) and COLS (10/1/2011) permits - Schedule A.3.c.iii (2-3)



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**PORT OF PORTLAND**  
Portland, Oregon

**Geographic Data Standards**  
Projected Coordinate System:  
NAD 1983 HARN State Plane,  
Oregon North, Intl Feet  
Map Projection Name:  
Lambert Conformal Conic

**Port of Portland MS4 Permit Area**  
Port Property within City of Portland  
Urban Services Boundary

Tera Hinkley | GIS Program | March 2015  
Prepared for Danelle Peterson, Environmental Affairs

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#### 4.0 SWMP REVISIONS AND REPORTING REQUIREMENTS

Adaptive management is the process for assessing new opportunities for improving program effectiveness in controlling stormwater pollution to the maximum extent practicable. The Port's SWMP has undergone and will continue to undergo periodic revisions in order to ensure continued reduction of pollutants to the maximum extent practicable. SWMP modifications will be made in accordance with an adaptive management process that is consistent with requirements in the permit.

The status of implementing the components of the SWMP must be submitted to DEQ in an annual report due November 1 for the period July 1 through June 30. The annual report must include proposed changes to the SWMP developed as a result of adaptive management.

#### 5.0 STORMWATER MANAGEMENT PLAN BMPS

The SWMP is organized into the eight major stormwater program elements listed below. The eight major elements correspond to those outlined in the MS4 NPDES permit (i.e., Schedule A (4) (a-h)).

Element #1:	Illicit Discharge Detection and Elimination
Element #2:	Industrial and Commercial Facilities
Element #3:	Construction Site Runoff Control
Element #4:	Education and Outreach
Element #5:	Public Involvement and Participation
Element #6:	Post-construction Site Runoff
Element #7:	Pollution Prevention for Municipal Operations
Element #8:	Structural Stormwater Facilities and Controls Operations and Maintenance

##### 5.1 Element #1 - Illicit Discharge Detection and Elimination

The MS4 permit includes the following permit requirements listed in the italicized text below. In some cases, language for the listed permit requirements has been condensed. Applicable MS4 NPDES permit provisions related to Element #1 are outlined under Schedule A.4.a. The Port BMPs or other activities that are conducted to meet these permit requirements are listed below as well.

Table 5-1 provides a detailed description of each BMP, including responsibility, implementation tasks, and documentation.

- i. *Prohibit, through ordinance or other regulatory mechanism, illicit discharges into the permittee's MS4.*

***BMP(s) to Address:***

##### • Implement the Illicit Discharge Detection and Elimination Program

- ii. *Describe in an enforcement response plan or similar document (by November 1, 2011) the enforcement response procedures the permittee will implement when an illicit discharge investigation identifies a responsible party.*

***BMP(s) to Address:***

- **This requirement has been completed and met under the Port BMP to Implement the Illicit Discharge Detection and Elimination Program**

- iii. *Develop or identify dry-weather field screening pollutant parameter action levels that will be used as part of the field analysis to identify the source of an illicit discharge or other type of discharge.....by November 1, 2011.*

***BMP(s) to Address:***

- **This requirement has been completed and met under the Port BMP to Conduct Dry-Weather Field Screening**

- iv. *Conduct annual dry-weather inspection activities during the term of the permit. The dry-weather inspection activities must include annual field screening of all priority locations identified and documented by the co-permittee.... The dry-weather field screening activities must be documented and include:*
  1. *General observation.*
  2. *Field Screening.*
  3. *Laboratory Analysis.*

***BMP(s) to Address:***

- **Conduct Dry-Weather Field Screening**

- v. *Identify response procedures to investigate of portions of the MS4 that, based on the results of general observations, field screening, laboratory analysis or other relevant information, indicates the presence of illicit discharges.*

***BMP(s) to Address:***

- **Conduct Dry Weather Field Screening**

- vi. *Maintain a system for documenting illicit discharge complaints or referrals, and suspected illicit discharge investigation activities.*

***BMP(s) to Address:***

- **Implement the Illicit Discharges Detection and Elimination Program**

- vii. *Take appropriate action to remove illicit discharges from the MS4 within 5 working days of detection. If it has been determined that removal of the illicit discharge will take more than 15 working days due to technical or other reasonable issues, the co-permittee must develop and implement an action plan to eliminate the illicit discharge in an expeditious manner. The action plan must be completed within 20 working days of determining the source of an illicit discharge..... The action plan must include a timeframe for elimination of the illicit discharge as soon as practicable.*

***BMP(s) to Address:***

- **Implement the Illicit Discharges Detection and Elimination Program**

- viii. *Describe and implement spill preventative measures, and upon notification, respond to, contain and mitigate spills that may discharge into the MS4....*

***BMP(s) to Address:***

- **Implement a Spill Response Program for Port Operated Property**

*In the case of a known illicit discharge that originates within the City's permitted area and that discharges directly to a storm sewer system or property under the jurisdiction of another municipality, the City must notify the affected municipality as soon as practicable, but no longer than one working day.*

***BMP(s) to Address:***

- **Implement the Illicit Discharges Detection and Elimination Program**

- ix. *In the case of a known illicit discharge that is identified within the City's permitted area, but is determined to originate from a contributing storm sewer system or property under the jurisdiction of another municipality, the City must notify the contributing municipality or municipality with jurisdiction as soon as practicable, but no longer than one working day.*

***BMP(s) to Address:***

- **Implement the Illicit Discharges Detection and Elimination Program**

- x. *Maintain maps identifying major MS4 outfalls discharging to waters of the State. The dry-weather screening locations must be uniquely identified.*

***BMP(s) to Address:***

- **Conduct Dry Weather Field Screening**

- xi. *Unless identified as a significant source of pollutants to waters of the State by a co-permittee or the Department, the following non-stormwater discharges are not considered illicit discharges: water line flushing; landscape irrigation; diverted stream flows; rising ground waters; uncontaminated groundwater infiltration; uncontaminated pumped ground water; discharges from potable water sources; start up flushing of groundwater wells; aquifer storage and recovery (ASR) wells; potable groundwater monitoring wells; draining and flushing of municipal potable water storage reservoirs; foundation drains; air conditioning condensate; irrigation water; springs; water from crawl space pumps; footing drains; lawn watering; individual residential car washing; flows from riparian habitats and wetlands; dechlorinated swimming pool discharges; street wash waters; discharges of treated water from investigation, removal and remedial actions selected or approved by the Department pursuant to Oregon Revised Statute (ORS) Chapter 465, the state's environmental cleanup law; and discharges or flows from emergency fire fighting activities where discharges or flows from fire fighting activities are identified as not a significant source of pollutants to waters of the state. If a non-stormwater discharge is identified as a significant source of pollutants, the co-permittees must develop and require implementation of appropriate BMPs to reduce the discharge of pollutants associated with the source.*

***BMP(s) to Address:***

- **Implement a Water Line Flushing Procedure**

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**Table 5-1. Illicit Discharge Detection and Elimination BMPs**

BMP	Permit Requirement	BMP Implementation	Measurable Goals	Tracking Measures
<p><b>Implement the Illicit Discharge Detection and Elimination Program</b></p>	<p>Schedule A.4.a.i                      Schedule A.4.a.ii                      Schedule A.4.a.vii                      Schedule A.4.a.ix                      Schedule A.4.a.x                      Schedule A.4.d.viii</p>	<p><b>BMP Description:</b> Through Ordinance 361, the Port of Portland has the authority to eliminate illicit discharges throughout its property including those associated with tenants on Port property.</p> <p>Environmental Operations staff implements illicit discharge detection and elimination procedures.</p> <p>The Port of Portland encourages public reporting of potential illicit discharges by maintaining spill notification signs throughout Port property.</p> <p><b>BMP Implementation Task:</b></p> <ol style="list-style-type: none"> <li>1) Continue to implement documented illicit discharge detection and elimination procedures.</li> <li>2) Implement a reporting program for potential illicit discharges by maintaining spill notification signs throughout Port property (Responsibility: MID Properties Maintenance, Marine Facilities Maintenance (MFM), and PDX Maintenance).</li> </ol>	<ul style="list-style-type: none"> <li>• For identified illicit discharges, conduct appropriate actions to address the remove consistent with the timeframes outlined in the MS4 NPDES Permit.</li> </ul>	<ul style="list-style-type: none"> <li>• Track the number, type, location and resolution of any illicit discharge investigations conducted</li> </ul>

**Table 5-1. Illicit Discharge Detection and Elimination BMPs**

BMP	Permit Requirement	BMP Implementation	Measurable Goals	Tracking Measures
<p><b>Conduct Dry-Weather Field Screening</b></p>	<p>Schedule A.4.a.iii                      Schedule A.4.a.iv                      Schedule A.4.a.v                      Schedule A.4.a.vi                      Schedule A.4.a.xi</p>	<p><b>BMP Description:</b> The Port of Portland conducts annual field screening activities during dry-weather conditions (between July and September) at all Port-owned priority outfall locations. Activities are conducted according to documented procedures.</p> <p>If necessary, in accordance with dry-weather field screening activities, the Port updates their GIS files annually related to existing outfall and priority outfall locations.</p> <p><b>BMP Implementation Task:</b></p> <ol style="list-style-type: none"> <li>1) Conduct annual dry-weather field screening activities at all priority outfall locations.                      Responsibility: Environmental Operations</li> <li>2) Annually, as necessary, update Port data files related to outfall locations in accordance with dry-weather field screening activities.                      Responsibility: Environmental Operations</li> </ol>	<ul style="list-style-type: none"> <li>• Inspect priority outfalls annually.</li> </ul>	<ul style="list-style-type: none"> <li>• Track the number and location of priority outfalls inspected during dry-weather field screening activities.</li> <li>• Summarize dry-weather field screening inspection results and indicate outfalls requiring sampling or follow-up activities.</li> <li>• Indicate the outcome and resolution of inspection activities conducted.</li> </ul>

**Table 5-1. Illicit Discharge Detection and Elimination BMPs**

BMP	Permit Requirement	BMP Implementation	Measurable Goals	Tracking Measures
<p><b>Implement a Spill Response Program for Port Operated Property</b></p>	<p><b>Schedule A.4.a.viii</b></p>	<p><b>BMP Description:</b> Spill prevention and response procedures for areas with an individual industrial stormwater permit are included in the facility’s Stormwater Pollution Control Plans, required as part of the NPDES 1200-Z or COLS permits. As a result, spill response activities for these areas are not reported under the MS4 permit.</p> <p>The Port also implements an independent Spill Response Program for all Port properties in accordance with provisions outlined in the Port’s Spill Response Procedures. In the event of a spill at industrial park properties and marine terminals, procedures require the spill to be reported to the 24- hour Marine Security Office. Security notifies the on-call Environmental Operations staff that will dispatch an on-call emergency response contractor to cleanup and contain the spill. Port staff completes the necessary reporting requirements including notification of Oregon Emergency Response System and the National Response Center when appropriate.</p> <p><b>BMP Implementation Tasks:</b></p> <ol style="list-style-type: none"> <li>1) Implement the Port’s spill response procedure and update as necessary. Responsibility: Environmental Operations</li> <li>2) Participate in the City’s Spill Response Committee Responsibility: Environmental Operations.</li> <li>3) Ensure trained Port staff members are available for on-call spill response, in addition to ensuring current contracts with on-call spill response contractors (Responsibility: Environmental Operations).</li> </ol>	<ul style="list-style-type: none"> <li>• Implement the Port’s Spill response procedures.</li> </ul>	<ul style="list-style-type: none"> <li>• Track the number of spills of a reportable quantity in which a spill response was conducted.</li> </ul>

**Table 5-1. Illicit Discharge Detection and Elimination BMPs**

BMP	Permit Requirement	BMP Implementation	Measurable Goals	Tracking Measures
<p><b>Implement a Water Line Flushing Procedure</b></p>	<p><b>Schedule A 4.a.xii</b></p>	<p><b>BMP Description:</b> The Port conducts periodic hydrant and water line flushing at the marine terminals and PDX to ensure the quality of the water system.</p> <p>Depending on the size of the discharge and the capacity of the receiving stream, discharges from water line flushing could potentially have an impact on streams with respect to concentrations of chlorine. . Per DEQ guidance, for projects that will discharge more than 500 gallons, when the flow distance is less than 1,000 feet and the receiving water has a flow rate of 50 cfs or less, chlorinated water will be de-chlorinated. Chlorinated water may be discharged to a storm sewer if the flow distance in the storm sewer system is 1,000 feet or more.</p> <p><b>BMP Implementation Task:</b></p> <p>1) Implement water line flushing procedures as described above to ensure appropriate disposal of chlorinated water.</p> <p><b>Note:</b> Of the listed allowable non-stormwater discharges provided in Schedule A.4.a.xii of the permit, the Port has identified water line flushing as a Port activity requiring a best management practice.</p>	<ul style="list-style-type: none"> <li>• Implement waterline flushing consistent with guidelines described in this BMP description.</li> </ul>	<p>N/A</p>

## 5.2. Element #2 – Industrial and Commercial Facilities

The MS4 permit includes the following permit requirements listed in the italicized text below. In some cases, language for the listed permit requirements has been condensed. Applicable MS4 NPDES permit provisions related to Element #2 are outlined under Schedule A.4.b. The Port BMPs or other activities that are conducted to meet these permit requirements are listed below as well.

Table 5-2 provides a detailed description of each BMP, including responsibility, implementation tasks, and documentation.

- i. *Screen existing and new industrial facilities to assess whether they have the potential to be subject to an industrial stormwater NPDES permit or have the potential to contribute a significant pollutant load to the MS4.*

*BMP(s) to Address:*

### • Screen Existing and New Industrial Facilities

- ii. *Within 30 days after the facility is identified, notify the industrial facility and the Department that an industrial facility is potentially subject to an industrial stormwater NPDES permit.*

*BMP(s) to Address:*

### • Screen Existing and New Industrial Facilities

- iii. *Implement a program that establishes the priorities and procedures for inspection of and implementation of stormwater control measures for discharges from industrial or commercial areas that have been identified as sources that contribute a significant pollutant load to the MS4.*

*BMP(s) to Address:*

### • Implement an Inspection Program for Significant Pollutant Source Areas

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**Table 5-2. Industrial and Commercial Facility BMPs**

BMP	Permit Requirement	BMP Implementation	Measurable Goals	Tracking Measures
<p><b>Screen Existing and New Industrial Facilities</b></p>	<p><b>Schedule A.4.b.i</b> <b>Schedule A.4.b.ii</b></p>	<p><b>BMP Description:</b> Significant areas within the Port of Portland are already covered by an existing 1200 –Z or 1200-COLS NPDES industrial stormwater permit. Such areas include PDX, select Port-operated marine terminals, and select tenant properties. Screening of existing and new industrial facilities would primarily apply to existing and new tenants occupying property not otherwise subject to an industrial stormwater permit.</p> <p>City of Portland per the IGA reviews and identifies annually facilities potentially subject to an industrial stormwater permit and notifies the facility and DEQ of such finding. The Port and the City continue to cooperate as necessary.</p> <p><b>BMP Implementation Tasks:</b></p> <p>1) Continue to coordinate with the City of Portland over the permit term to process to screen industrial facilities per the IGA. (Responsibility: Environmental Operations).</p>	<ul style="list-style-type: none"> <li>• Coordinate with the City of Portland for screening industrial facilities per the IGA</li> </ul>	<ul style="list-style-type: none"> <li>• Track leaseholds that have an industrial permit.</li> </ul>
<p><b>Implement an Inspection Program for Significant Pollutant Source Areas</b></p>	<p><b>Schedule A.4.b.iii</b></p>	<p><b>BMP Description:</b> Port of Portland property includes a variety of industrial facilities both with and without industrial stormwater permits.</p> <p>The Port has a list that will be updated annually of facilities that have the potential to contribute substantial pollutant loading to the MS4 (i.e., priority facilities). Priority facilities are inspected regularly based on an evaluation of several criteria outlined in the Port’s documented procedures.</p> <p>The City of Portland conducts inspections at facilities with 1200-Z and 1200-COLS NPDES permits.</p> <p><b>BMP Implementation Tasks:</b></p> <p>1) Conduct inspections of priority facilities Responsibility: Environmental Operations</p> <p>2) If inspections identify conditions needing improvements, coordinate with tenant and Port property manager to ensure appropriate control measures to minimize pollutant loading from priority facilities (Responsibility: Environmental Operations)</p>	<ul style="list-style-type: none"> <li>• Conduct annual inspections at priority facilities.</li> </ul>	<ul style="list-style-type: none"> <li>• Track the number of facilities inspected annually.</li> <li>• Track improvements made to priority facilities as a result of inspections.</li> </ul>

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### **5.3. Element #3 - Construction Site Runoff Control**

The MS4 permit includes the following permit requirements listed in the italicized text below. In some cases, language for the listed permit requirements has been condensed. Applicable MS4 NPDES permit provisions related to Element #3 are outlined under Schedule A.4.c.

- i. Include ordinances or other enforceable regulatory mechanism that requires erosion and sediment controls designed, implemented, and maintained to prevent adverse impacts to water quality and minimize the transport of contaminants to waters of the State.*
- ii. Require construction site operators to develop site plans and implement and maintain effective erosion and sediment control best management practices.*
- iii. Require construction site operators to prevent or control non-stormwater waste that may cause adverse impacts to water quality such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste.*
- iv. Describe site plan review procedures to ensure stormwater BMPs are appropriate and address the construction activities being proposed. At a minimum, construction site erosion and sediment control plans for sites disturbing one acre or greater must be developed in accordance with the State of Oregon's 1200-C permit requirements.*
- v. Perform on-site inspections in accordance with documented procedures and criteria to ensure the approved erosion and sediment control plan is properly implemented.... Inspections must be documented, including photographs and monitoring results as appropriate.*
- vi. Describe in an enforcement response plan or similar document the enforcement response procedures the permittee will implement. The enforcement response procedures must use all means necessary to ensure construction activities are in compliance with the ordinances or other regulatory mechanisms.*

The Port complies with its NPDES 1200-CA Permit, NPDES 1200-C permits as required by DEQ, and the City of Portland's erosion control ordinance which also address these requirements. In addition, these requirements are incorporated into contracts to the extent construction site operators are performing work for the Port. Therefore, control of construction site runoff is addressed independently from this SWMP and BMPs as outlined in Table 3-1.

## 5.4 Element #4 - Education and Outreach

The MS4 permit includes the following permit requirements listed in the italicized text below. In some cases, language for the listed permit requirements has been condensed. Applicable MS4 NPDES permit provisions related to Element #4 are outlined under Schedule A.4.d. The Port BMPs or other activities that are conducted to meet these permit requirements are listed below as well.

Table 5-4 provides a detailed description of each BMP, including responsibility, implementation tasks, and documentation.

- i. *Continue to implement a documented public education and outreach strategy that promotes pollutant source control and a reduction of pollutants in stormwater discharges....The public education and outreach strategy may incorporate cooperative efforts with other MS4 regulated permittees or efforts by other groups or organizations provided a mechanism is developed and implemented to track the public education and outreach efforts within the MS4 regulated area and the results of such efforts are reported annually.*

***BMP(s) to Address:***

- **Implement Public Education Measures to Protect Stormwater Quality**

- ii. *Provide educational materials to the community or conduct equivalent outreach activities describing the impacts of stormwater discharges on water bodies and the steps or actions the public can take to reduce pollutants in stormwater runoff.*

***BMP(s) to Address:***

- **Implement Public Education Measures to Protect Stormwater Quality**
- **Implement a Tenant BMP Program**

- iii. *Provide public education on the proper use and disposal of pesticides, herbicides, fertilizers and other household chemicals.*

***BMP(s) to Address:***

- **Require Training and Licensing for Staff Conducting Pest Management Activities**
- **Implement a Tenant BMP Program**

- iv. *Provide public education on the proper operation and maintenance of privately-owned or operated stormwater quality management facilities.*

***BMP(s) to Address:***

- **Implement a Program for Tracking and Maintenance of Private Structural Controls (see Table 5-8)**
- **Implement a Tenant BMP Program**

- v. *Provide notice to construction site operators concerning where education and training to meet erosion and sediment control requirements can be obtained.*

***BMP(s) to Address:***

- **Provide Erosion Prevention and Sediment Control Training for Construction Inspectors.**

- vi. *Conduct or participate in an effectiveness evaluation to measure the success of public education activities during the term of this permit. The effectiveness evaluation must focus on assessing changes in targeted behaviors. The results of the effectiveness evaluation must be used in the adaptive management of the education and outreach program.*

***BMP(s) to Address:***

- **This requirement has been completed and met under the Port BMP to Participate in a Public Education Effectiveness Evaluation**

- vii. *Include training for municipal employees involved in MS4-related activities, as appropriate. The training should include stormwater pollution prevention and reduction from municipal operations, including, but not limited to, parks and open space maintenance, fleet and building maintenance, new municipal facility construction and related land disturbances, design and construction of street and storm drain systems, discharges from non-emergency fire fighting-related training activities, and stormwater system maintenance.*

***BMP(s) to Address:***

- **Require Training and Licensing for Staff Conducting Pest Management Activities**
- **Implement a Spill Response Training Program**
- **Implement a Staff Training Program for Stormwater Pollution Prevention**

- viii. *Promote, publicize and facilitate public reporting of illicit discharges through the use of newspapers, newsletters, utility bills, door hangars, radio public service announcements, videos, televised council meetings, brochures, signs, posters or other effective methods.*

***BMP(s) to Address:***

- **Implement an Illicit Discharge Detection and Elimination Program (see Table 5-1)**

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Table 5-4. Education and Outreach BMPs				
BMP	Permit Requirement	BMP Implementation	Measurable Goals	Tracking Measures
<p><b>Implement Public Education Measures to Protect Stormwater Quality</b></p>	<p>Schedule A.4.d.i Schedule A.4.d.ii</p>	<p><b>BMP Description:</b> The Port implements a public education strategy and conducts a variety of outreach activities to educate the public and employees on the protection of stormwater quality. Such educational measures include installation of catch basin decals and signage to prevent/report illicit discharges.</p> <p>Some of the City of Portland’s outreach activities are also applicable and target Port audiences.</p> <p><b>BMP Implementation Tasks:</b></p> <ol style="list-style-type: none"> <li>1) During inspections conducted under BMP – “Implement Inspections of Significant Pollutant Source Areas”, and BMP – “Implement a Stormwater System Cleaning and Maintenance Program”, identify catchbasins where it would be relevant and appropriate to apply “Dump No Waste, Drains to Stream” decals and apply decals.</li> <li>2) Responsibility: Environmental Operations, MID Properties Maintenance, MFM, PDX Maintenance</li> <li>3) Include stormwater education materials at Port sponsored outreach events.</li> </ol> <p>Responsibility: Environmental Operations</p>	<ul style="list-style-type: none"> <li>• “Dump No Waste, Drains to Stream” decals will be applied to catch basins associated with all new Port construction annually (with the exception of FAA restricted areas).</li> <li>• Provide stormwater education materials at outreach events.</li> </ul>	<ul style="list-style-type: none"> <li>• Track the number of “Dump No Waste, Drains to Stream” decals applied to catch basins.</li> <li>• Track events where stormwater educational materials were made available.</li> </ul>

Table 5-4. Education and Outreach BMPs				
BMP	Permit Requirement	BMP Implementation	Measurable Goals	Tracking Measures
<b>Implement a Tenant Stormwater BMP Program</b>	<p>Schedule A.4.d.ii</p> <p>Schedule A.4.d.iii</p> <p>Schedule A.4.d.iv</p> <p>Schedule A.4.g.ii</p> <p>Schedule A.4.h.ii</p>	<p><b>BMP Description:</b> Outreach efforts directed to tenants in MID and PDX can assist in the reduction of pollutant discharges from municipal separate storm sewers.</p> <p>Port staff will provide a variety of technical assistance to tenants on stormwater issues and BMPs as needed. Such documentation may include educational information on pesticide, herbicide, and fertilizer management and information related to appropriate spill response procedures.</p> <p><b>BMP Implementation Tasks:</b></p> <ol style="list-style-type: none"> <li>1) Maintain an inventory of all tenants or lease holders Responsibility: Environmental Operations, Aviation and MID Properties Management</li> <li>2) Provide technical assistance to the tenants regarding structural and non-structural/ source control stormwater BMPs</li> <li>3) Responsibility: Environmental Operations, MID and Aviation Properties Management. Maintain an active property management role by conducting inspections of property vacated by tenants to ensure proper disposal of waste materials Responsibility: Environmental Operations, Aviation and MID Properties Management.</li> </ol>	<ul style="list-style-type: none"> <li>• Compile/ update a leasehold inventory annually.</li> <li>• Provide technical information related to structural and non-structural/ source control BMPs to tenants over the permit term.</li> </ul>	<ul style="list-style-type: none"> <li>• Verify the completion and/ or update of a leasehold inventory.</li> <li>• Track technical assistance documentation provided to tenants.</li> <li>• Describe property management activities for lease termination inspections.</li> </ul>
<b>Require Training and Licensing for Staff Conducting Pest Management Activities</b>	<p>Schedule A.4.d.iii</p> <p>Schedule A.4.d.vii</p> <p>Schedule A.4.g.ii</p>	<p><b>BMP Description:</b> The Port ensures that all employees (contractors and Port employees) performing pesticide application are trained and licensed by the Oregon Department of Agriculture (ODA).</p> <p><b>BMP Implementation Tasks:</b></p> <ol style="list-style-type: none"> <li>1) Require all pesticide applicators to obtain and maintain licenses issued by the Oregon Department of Agriculture. Responsibility: Environmental Operations, Marine Landscape Facilities Maintenance, Marine Facilities Maintenance</li> </ol>	<ul style="list-style-type: none"> <li>• All pesticide applicators will be licensed by the ODA.</li> </ul>	<ul style="list-style-type: none"> <li>• Track the Port employees who are ODA-licensed pesticide applicators.</li> </ul>

Table 5-4. Education and Outreach BMPs				
BMP	Permit Requirement	BMP Implementation	Measurable Goals	Tracking Measures
<b>Provide Erosion Prevention and Sediment Control Training for Construction Inspectors</b>	<b>Schedule A.4.d.v</b>	<p><b>BMP Description:</b> The Port holds a NPDES 1200-CA Permit for construction activities on Port properties. Construction activities require specific erosion prevention and sediment control measures to meet the requirements of the 1200-CA Permit. The 1200-CA Permit requirements are detailed in Port construction specifications and provided to construction site operators as necessary.</p> <p>Environmental Operations provides Port construction inspectors with annual erosion prevention and sediment control training which focuses on construction stormwater BMPs.</p> <p><b>BMP Implementation Tasks:</b></p> <p>1) Provide annual erosion prevention and sediment control training for all Port construction inspectors.</p> <p>Responsibility: Environmental Operations</p>	<ul style="list-style-type: none"> <li>Erosion prevention and sediment control training will be conducted annually for Port construction inspectors.</li> </ul>	<ul style="list-style-type: none"> <li>Track the number of employees receiving erosion and sediment control training.</li> </ul>
<b>Implement a Spill Response Training Program</b>	<b>Schedule A.4.d.vii</b>	<p><b>BMP Description:</b> Facilities on Port property with industrial stormwater permits are required to conduct spill training as part of their Stormwater Pollution Control Plans (SWPCP). In addition, the Navigation Facility implements a Spill Prevention, Control and Countermeasures (SPCC) Plan. This plan also includes spill training requirements for designated staff.</p> <p>Marine Environmental conducts annual spill prevention and response training for designated employees.</p> <p><b>BMP Implementation Tasks:</b></p> <p>1) Distribute updated emergency contact information and spill response procedures to employees responsible for responding to spills.</p> <p>2) Conduct general spill response training annually for designated employees.</p> <p>Responsibility: Environmental Operations</p>	<ul style="list-style-type: none"> <li>Annually train designated Port employees on spill response.</li> </ul>	<ul style="list-style-type: none"> <li>Document spill response training activities.</li> </ul>

**Table 5-4. Education and Outreach BMPs**

BMP	Permit Requirement	BMP Implementation	Measurable Goals	Tracking Measures
<p><b>Implement a Staff Training Program for Stormwater Pollution Prevention</b></p>	<p><b>Schedule A.4.d.vii</b></p>	<p><b>BMP Description:</b> The Port of Portland collectively conducts a variety of training related to stormwater pollution prevention, depending on the department. For those areas operating under a 1200-series industrial stormwater permit, staff training on stormwater pollutant prevention is required during the term of the permit. All new employees receive stormwater related training during orientation.</p> <p>Port staff attends a variety of educational presentations and conferences throughout the year. The Port participates with state and local agencies and groups involved with a broad range of water quality issues including stormwater. Examples of organizations and groups the Port is involved with include the Clean River Cooperative, Harbor Safety Committee, Columbia Slough Watershed Council, Association of Clean Water Agencies, Bi-State task Force, and DEQ technical advisory committees. Such meetings and conference attendance allows for additional educational opportunities for staff.</p> <p><b>BMP Implementation Tasks:</b></p> <ol style="list-style-type: none"> <li>1) Continue to conduct training for new employees during their orientation. Responsible Party: Environmental Operations</li> <li>2) Provide targeted annual stormwater pollution prevention training for specific staff that conducts activities relevant to stormwater. Responsible Party: Environmental Operations</li> <li>3) Port staff to attend conferences and educational presentations. Responsible Parties: Environmental Operations</li> </ol>	<ul style="list-style-type: none"> <li>• Participate in water quality organizations and stakeholder groups annually.</li> <li>• Conduct annual training.</li> <li>• Conduct new employee training.</li> </ul>	<ul style="list-style-type: none"> <li>• Document all staff training activities.</li> <li>• Document attendance at conferences.</li> </ul>

## 5.5 Element #5 - Public Involvement and Participation

The MS4 permit includes the following permit requirements listed in the italicized text below. In some cases, the language for the listed permit requirements has been condensed. Applicable MS4 NPDES permit provisions related to Element #5 are outlined under Schedule A.4.e. The Port BMPs or other activities that are conducted to meet these permit requirements are listed below as well.

Table 5-5 provides a detailed description of each BMP, including responsibility, implementation tasks, and documentation.

*Co-permittees must implement a public participation approach that provides opportunities for the public to effectively participate in the development, implementation and modification of the co-permittee's stormwater management program. The approach must include provisions for receiving and considering public comments on the monitoring plan due to the Department June 1, 2011, annual reports, SWMP revisions, and the TMDL pollutant load reduction benchmark development.*

### ***BMP(s) to Address:***

- **Provide for Public Participation with SWMP and Benchmark Submittals**
- **Implement a public participation approach that provides opportunities for the public to effectively participate in the implementation of the stormwater management program.**

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<b>Table 5-5. Public Involvement and Participation BMPs</b>				
<b>BMP</b>	<b>Permit Requirement</b>	<b>BMP Implementation</b>	<b>Measurable Goals</b>	<b>Tracking Measures</b>
<b>Provide for Public Participation in SWMP Updates and Benchmark Submittals</b>	<b>Schedule A.4.e.</b>	<p><b>BMP Description:</b> Schedule A.4.e of the Port’s MS4 NPDES permit requires the Port to provide opportunity for public participation in the development, implementation, and modification of the Port’s Stormwater Management Plan (SWMP) and pollutant load reduction benchmark development.</p> <p>SWMP revisions and pollutant load reduction benchmarks are required for submittal to DEQ at the permit renewal (180-days prior to permit expiration). Prior to submittal of these items, the Port will provide the public with an opportunity to comment on the revisions to the SWMP and proposed pollutant load reduction benchmarks. Comments on these documents will be collected and considered, and response to the comments will be publically provided.</p> <p><b>BMP Implementation Tasks:</b></p> <p>1) Provide opportunities for public comment on the SWMP and pollutant load reductions benchmarks prior to submittal of the permit renewal to DEQ.</p> <p>Responsibility: Environmental Operations</p>	<ul style="list-style-type: none"> <li>• Provide for public participation on the SWMP revisions and pollutant load reduction benchmarks.</li> <li>• Provide public access to the Port’s most current MS4 Annual Report via its public website.</li> </ul>	<ul style="list-style-type: none"> <li>• Report annually on public participation in these areas.</li> </ul>

<b>Table 5-5. Public Involvement and Participation BMPs</b>				
<b>BMP</b>	<b>Permit Requirement</b>	<b>BMP Implementation</b>	<b>Measurable Goals</b>	<b>Tracking Measures</b>
<b>Implement a public participation approach that provides opportunities for the public to effectively participate in the implementation of the stormwater management program.</b>	<b>Schedule A.4.e</b>	<p><b>BMP Description:</b> Identify appropriate opportunities for the public to be involved in the implementation of the Port’s MS4 program and implement these projects over the permit term.</p> <p><b>BMP Implementation Tasks:</b></p> <ol style="list-style-type: none"> <li>1) Make the public aware of the selected involvement opportunities via the Port’s website, and the Columbia Slough Watershed Council. Responsibility: Environmental Operations and Community Affairs</li> <li>2) Implement selected projects and document public involvement. Responsibility: Environmental Operations and Community Affairs</li> </ol>	<ul style="list-style-type: none"> <li>• Document what projects are identified as public involvement opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>• Describe any projects implemented where the public has opportunity to participate and the extent of public involvement for each.</li> </ul>

## 5.6 Element #6 – Post-Construction Site Runoff Control

The MS4 permit includes the following permit requirements listed in the italicized text below. In some cases, language for the listed permit requirements has been condensed. Applicable MS4 NPDES permit provisions related to Element #6 are outlined under Schedule A.4.f.

*f. Post-Construction Site Runoff: Co-permittees must continue to implement their post-construction stormwater pollutant and runoff control program.*

- i. By January 1, 2014, the post-construction stormwater pollutant and runoff control program applicable to new development and redevelopment projects that create or replace 500 ft<sup>2</sup> of impervious surface must meet the following conditions:*
  - 1) Incorporate site-specific management practices that target natural surface or predevelopment hydrologic functions where practicable. The site-specific management practices should optimize on-site retention based on the site conditions;*
  - 2) Reduce site specific post-development stormwater runoff volume and rates of discharges to the municipal separate storm sewer system (MS4) to minimize hydrological and water quality impacts from impervious surfaces;*
  - 3) Prioritize and include implementation of Low-Impact Development (LID), Green Infrastructure (GI) or equivalent design and construction approaches; and,*
  - 4) Capture and treat 80% of the annual average runoff volume, based on a documented local or regional rainfall frequency and intensity.*
- ii. Co-permittees must identify, and where practicable, minimize or eliminate code and development standard barriers that inhibit design and implementation techniques intended to minimize impervious surfaces and reduce stormwater runoff (e.g., Low Impact Development, Green Infrastructure), and have been identified by and are within the jurisdiction of the permittee. If the minimization or elimination of a code and development standard barrier conflicts with public and environmental health and safety standards, the co-permittee may modify the code and development standard accordingly to address such conflicts. Co-permittees must review code and development standards for minimization or elimination, and appropriately modify within three years of identification of the code or development standard as a barrier.*
- iii. To reduce pollutants and mitigate the volume, duration, time of concentration and rate of stormwater runoff, the co-permittees must develop or reference an enforceable post-construction stormwater quality management manual or equivalent document by January 1, 2014 that, at a minimum, includes the following:*
  - 1) A minimum threshold for triggering the requirement for post-construction stormwater management control and the rationale for the threshold;*
  - 2) A defined design storm that allows for identification of an acceptable continuous simulation method to address the capture and treatment of 80% of the annual average runoff volume*

- 3) *Applicable LID, GI or similar stormwater runoff reduction approaches, including the practical use of these approaches;*
  - 4) *Conditions where the implementation of LID, GI or equivalent approaches may be impracticable; and,*
  - 5) *BMPs, including a description of the following:*
    - a. *Site-specific design requirements;*
    - b. *Design requirements that do not inhibit maintenance;*
    - c. *Conditions where the BMP applies;*
  - 6) *Pollutant removal efficiency performance goals that maximize the reduction in discharge of pollutants.*
- iv. *Co-permittees must review, approve and verify proper implementation of post-construction site plans for new development and redevelopment projects applicable to this section. The Port of Portland may address this permit requirement by documenting that all internal Port of Portland development projects meet the Post-Construction Site Runoff performance standards required in this subsection.*
  - v. *Where a new development or redevelopment project site is characterized by factors limiting use of on-site stormwater management methods to achieve the post-construction site runoff performance standards, such as high water table, shallow bedrock, poorly-drained or low permeable soils, contaminated soils, steep slopes or other constraints, the Post-Construction Stormwater Management program must require equivalent measures, such as off-site stormwater quality management. Off-site stormwater quality management may include off-site mitigation, such as construction of a structural stormwater facility within the sub-watershed, a stormwater quality structural facility mitigation bank or a payment-in-lieu program.*
  - vi. *A description of the enforcement response procedures the co-permittee will follow when addressing project compliance issues with the enforceable post-construction stormwater management performance standards.*

The Port identified the need to develop Port-specific post-construction standards that consider facility and site-specific requirements and operations constraints for marine terminals and airports (including Federal Aviation Administration requirements). The Port adopted its own Port facility-specific development standards in February of 2014.

***BMP(s) to address:***

- **Implement Port-Specific Post-Construction Runoff Control Standards**

<b>Table 5-6. Post Construction Site Runoff BMPs</b>				
<b>BMP</b>	<b>Permit Requirement</b>	<b>BMP Implementation</b>	<b>Measurable Goals</b>	<b>Tracking Measures</b>
<b>Implement Port-Specific Post-Construction Runoff Control Standards</b>	<b>Schedule A.4.f.</b> <b>Schedule A.6.c</b>	<p><b>BMP Description:</b> Schedule A.4.f of the Port’s MS4 NPDES permit requires the Port to implement a post-construction storm water pollutant and runoff control program. Port development/redevelopment projects will meet the permit performance conditions through Port facility-specific development standards or the City of Portland’s standards as applicable.</p> <p><b>BMP Implementation Tasks:</b></p> <ol style="list-style-type: none"> <li>1) Implement Port-wide post-construction standards for development and redevelopment. Airport specific standards will be consistent with FAA and airport operations requirements.  Responsibility: Engineering staff</li> <li>2) By December 30 2017, develop IGA with the City of Portland to document jurisdictional issues between the Port’s Stormwater Design Standards Manual and the City of Portland Stormwater Management Manual.  Responsibility: Environmental Operations</li> </ol>	<ul style="list-style-type: none"> <li>• Implement Port-wide post-construction development/redevelopment standards</li> </ul>	<ul style="list-style-type: none"> <li>• Track development that occurs and water quality facilities constructed.</li> </ul>

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## 5.7 Element #7 – Pollution Prevention for Municipal Operations

The MS4 permit includes the following permit requirements listed in the italicized text below. In some cases, language for the listed permit requirements has been condensed. Applicable MS4 NPDES permit provisions related to Element #7 are outlined under Schedule A.4.g. The Port BMPs or other activities that are conducted to meet these permit requirements are listed below as well.

Table 5-7 provides a detailed description of each BMP, including responsibility, implementation tasks, and documentation.

- i. *Operate and maintain public streets, roads and highways for which the permittee has authority in a manner designed to minimize the discharge of stormwater pollutants to the MS4, including pollutants discharged as a result of deicing activities;*

***BMP(s) to Address:***

- **Implement a Street and Vehicle Maneuvering Area Cleaning and Maintenance Program**

- ii. *Implement a management program to control the use and application of pesticides, herbicides and fertilizers on municipally-owned properties;*

***BMP(s) to Address:***

- **Limit Landscape Maintenance Activities Impact on Stormwater**
- **Require Training and Licensing for Staff Conducting Pest Management Activities (see Table 5-4)**
- **Implement a Tenant BMP Program (see Table 5-4)**

- iii. *Inventory, assess, and implement a strategy to reduce the impact of stormwater runoff from municipal facilities that treat, store or transport municipal waste, such as yard waste or other municipal waste not already covered under a 1200 series NPDES permit;*

- **Implement a Street and Vehicle Maneuvering Area Cleaning and Maintenance Program**
- **Implement a Stormwater System Cleaning and Maintenance Program (this BMP is provided under Element #8 of the SWMP)**

- iv. *Implement controls to limit infiltration of seepage from the municipal sanitary sewer system to the MS4 where necessary;*

***BMP(s) to Address:***

- **Implement a Program to Limit Infiltration from Port-Owned Sanitary Sewer System to the MS4**

- v. *Implement a strategy to prevent or control the release of materials related to fire-fighting training activities; and,*

***BMP(s) to Address:***

- **The only fire fighting training facility is located at PDX, which operates under a 1200-COLS permit.**

*vi. Assess co-permittee flood control projects to identify potential impacts on the water quality of receiving water bodies and determine the feasibility of retrofitting structural flood control devices for additional stormwater pollutant removal. The results of this assessment must be incorporated and considered along with the results of the Stormwater Retrofit Assessment required by this permit;*

***BMP(s) to Address:***

- **The City of Portland manages water quality improvements on a master planning level.**

**Table 5-7. Pollution Prevention for Municipal Operation BMPs**

BMP	Permit Requirement	BMP Implementation	Measurable Goals	Tracking Measures
<p><b>Implement a Street and Vehicle Maneuvering Area Cleaning and Maintenance Program</b></p>	<p><b>Schedule A.4.g.i</b></p>	<p><b>BMP Description:</b> The Port has limited responsibility with regard to roadway maintenance, as the City conducts activities affecting the right-of-way throughout the City boundary, including some Port operating areas.</p> <p>PDX Maintenance conducts roadway maintenance on specific Port-managed areas including Frontage Road, Airport Way, PDX employee parking lots, sections of 82<sup>nd</sup> Avenue and Airtrans Way. MFM conducts pavement maintenance throughout the Port-managed areas and select leaseholds of the marine terminals. MID Properties Maintenance contracts pavement repair for Port-managed areas of the industrial parks. The Port conducts sweeping and deicing activities as needed to maintain safe operations at Port-managed locations throughout Port property.</p> <p><b>BMP Implementation Tasks:</b></p> <ol style="list-style-type: none"> <li>1) Sweep the McCarthy Park (Swan Island) parking lot annually. Responsibility: MID Properties Maintenance</li> <li>2) Sweep Port-managed areas of the marine terminals annually. If additional sweeping is needed, Marine Environmental will coordinate with MFM staff. Responsibility: Environmental Operations, MFM</li> <li>3) Sweep Airport Way, Frontage Road and PDX employee parking lots twice per week in winter and once per week in summer. Responsibility: PDX Maintenance</li> <li>4) Maintain and repair roadway areas to minimize pollutant impacts to stormwater as needed. Responsibility: MFM, PDX Maintenance</li> <li>5) Follow manufacturer’s recommendation for application of deicing products. Responsibility: MFM, PDX Maintenance, MID Properties Maintenance</li> </ol>	<ul style="list-style-type: none"> <li>• Sweep McCarthy Park parking lot annually.</li> <li>• Sweep Port-managed, accessible areas of the marine terminals annually.</li> <li>• Sweep Airport Way, Frontage Road, and the PDX employee parking lots a minimum of once per week.</li> </ul>	<ul style="list-style-type: none"> <li>• Track sweeping frequency at McCarthy Park.</li> <li>• Track sweeping frequency at the marine terminals.</li> <li>• Track sweeping frequency at Airport Way, Frontage Road and the PDX employee parking lots.</li> <li>• Report amount of materials removed. Materials will include those collected from catchbasins and other structural devices (see BMP: Implement a Stormwater System Cleaning and Maintenance Program).</li> </ul>

**Table 5-7. Pollution Prevention for Municipal Operation BMPs**

<b>BMP</b>	<b>Permit Requirement</b>	<b>BMP Implementation</b>	<b>Measurable Goals</b>	<b>Tracking Measures</b>
		<p>6) As necessary, decant street sweeping wastes in covered, water-tight drop boxes (Decant Water Collection Boxes) that drain to an approved sanitary sewer discharge point.</p> <p>Responsibility: MFM</p>		
<p><b>Limit Landscape Maintenance Activities Impact on Stormwater</b></p>	<p><b>Schedule A.4.g.ii</b></p>	<p><b>BMP Description:</b> The Port has a program to control the use and application of pesticides, herbicides and fertilizers on Port property (with the exception of the airfield). This program includes responsibilities for MID Properties Maintenance, MFM, and PDX Maintenance regarding landscape activities. As necessary, the program will be updated to meet permit requirements.</p> <p><b>BMP Implementation Tasks:</b></p> <ol style="list-style-type: none"> <li>1) Apply pesticides and fertilizers, using an Integrated Pest Management approach to minimize impacts to stormwater. Responsibility: MID Properties Maintenance, PDX Maintenance, MFM</li> <li>2) Review the Port’s program to control pesticides, herbicides and fertilizers annually, and update as appropriate. Responsibility: Environmental Operations MFM, PDX Maintenance</li> <li>3) Maintain an inventory of pesticides used on Port property and update annually. Responsibility: Environmental Operations</li> </ol>	<ul style="list-style-type: none"> <li>• Annually update the Port’s pesticide use inventory.</li> </ul>	<ul style="list-style-type: none"> <li>• Document the annual pesticide use update.</li> </ul>

<p><b>Implement a Program to Limit Infiltration from Port-Owned Sanitary Sewer System to the MS4</b></p>	<p><b>Schedule A.4.g.iv</b></p>	<p><b>BMP Description:</b> The Port owns a portion of the sanitary sewer system at Portland International Airport as well as at several marine terminals. These systems are maintained on a regular basis by Port of Portland staff to ensure proper operation and limit the potential for infiltration or overflow into the Port’s MS4. The Port’s maintenance program includes the following elements (listed as implementation tasks below).</p> <p><b>BMP Implementation Tasks:</b></p> <ol style="list-style-type: none"> <li>1) Monitor pump stations electronically to ensure proper function of Aviation pump stations. Responsibility: PDX Maintenance</li> <li>2) Monitor pump stations through monthly inspections and audible/visual alarms to ensure proper function of MID pump stations. Responsibility: MFM Maintenance</li> <li>3) Conduct annual pump station maintenance, including flushing, float and alarm testing, and debris removal for all pump stations. Responsibility: PDX Maintenance, MFM</li> <li>4) Clean Port-owned grease interceptor vaults at PDX on an annual basis. Responsibility: PDX Maintenance</li> <li>5) Continue to implement the tenant FOG (fats/oils/grease) program to ensure proper handling of these materials at PDX. Responsibility: PDX Business/Properties</li> </ol>	<ul style="list-style-type: none"> <li>• Document completion of implementation tasks (2-3) associated with this BMP (with PDX Maintenance, Aviation Facilities Maintenance, MFM, and PDX Business/Properties)</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain a list of Port tenants implementing the FOG program.</li> </ul>
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## 5.8 Element #8 – Structural Stormwater Controls Operations and Maintenance

The MS4 permit includes the following permit requirements listed in the italicized text below. In some cases, language for the listed permit requirements has been condensed. Applicable MS4 NPDES permit provisions related to Element #8 are outlined under Schedule A.4.h. The Port BMPs or other activities that are conducted to meet these permit requirements are listed below as well.

Table 5-8 provides a detailed description of each BMP, including responsibility, implementation tasks, and documentation.

- i. *Co-permittees must implement a program by January 1, 2013 to verify that stormwater structural facilities and controls are inventoried, mapped, inspected, operated and maintained for effective pollutant removal, infiltration and/or flow control. At a minimum, the program must include the following: 1) Legal authority to inspect and require effective operation and maintenance; 2) A program to inventory and map public and private stormwater treatment facilities as provided under Schedule A.4.h.ii.; and, 3) Public and private stormwater facility inspection and maintenance requirements for stormwater facilities that have been inventoried and mapped as provided under Schedule A.4.h.ii.*

### ***BMP(s) to Address:***

- **Implement a Stormwater System Cleaning and Maintenance Program**
  - **Implement a Program for the Tracking and Maintenance of Private Structural Controls**
- ii. *As part of the Stormwater Structural Facilities and Controls Inspection and Maintenance program, co-permittees must develop and implement a plan or approach that guides the long-term maintenance and management of all publicly-owned and identified privately-owned stormwater structural facilities and controls. At a minimum, the plan or approach must describe the following:*
    1. *Publicly-owned or operated stormwater quality facilities inventory and mapping process, inspection and maintenance schedule, inspection, operation and maintenance criteria and priorities, description of inspector type and staff position or title, and, inspection and maintenance tracking mechanisms; and*
    2. *Privately-owned or operated stormwater quality facilities procedures for and types of stormwater facilities that will be inventoried and mapped, inspection criteria, rationale, priorities, inspection frequency and procedures, required training or qualifications to inspect private stormwater facilities, reporting requirements, and, inspection and maintenance tracking mechanism. At a minimum, the inventory and mapping must include the following:*
      - (i) *Private stormwater management facilities for new development and redevelopment projects constructed under the co-permittee's post-construction management manual or equivalent document after February 1, 2011.;*
      - (ii) *Private stormwater management facilities identified by the co-permittee and used to estimate the pollutant load reduction as part of the TMDL benchmark evaluation; and,*
      - (iii) *Any major private stormwater management facilities or structural controls.*

***BMP(s) to Address:***

- **Implement a Stormwater System Cleaning and Maintenance Program**
- **Implement a Tenant BMP Program (see Table 5-4)**

**Table 5-8. Structural Stormwater Control Operation and Maintenance BMPs**

<b>BMP</b>	<b>Permit Requirement</b>	<b>BMP Implementation</b>	<b>Measurable Goals</b>	<b>Tracking Measures</b>
<p><b>Implement a Stormwater System Cleaning and Maintenance Program</b></p>	<p><b>Schedule A.4.h.i</b> <b>Schedule A.4.h.ii</b></p>	<p><b>BMP Description:</b> The Port owns and operates stormwater system features within the Port’s MS4 permit boundary. Stormwater system features include pipes, catch basins, and Port-owned and operated structural controls such as sedimentation manholes, oil/water separators, hydrodynamic devices, filters, and swales. Stormwater system features are currently mapped in GIS.</p> <p>The Port implements a stormwater system inspection and maintenance program per provisions outlined in Ordinance 361, which provides the Port with authority to control the contribution of pollutants to storm sewers owned or operated by the Port for areas not covered by a 1200-series industrial stormwater permit. The Port has documented inspection and maintenance procedures.</p> <p><b>BMP Implementation Tasks:</b></p> <ol style="list-style-type: none"> <li>1) Continue to implement a stormwater system feature inspection and maintenance program. Responsibility: Environmental Operations, MFM, Properties Maintenance.</li> <li>2) Inspect and clean catch basins (as necessary) annually in Port-managed areas of Marine and Industrial Development. Responsibility: Environmental Operations, MFM).</li> <li>3) Conduct litter pickup and vegetation management activities to ensure adequate access and performance of all stormwater system features as needed.</li> </ol> <p>Responsibility: Marine Environmental, MFM, Properties Maintenance</p> <ol style="list-style-type: none"> <li>4) Coordinate updates of storm sewer system maps to include updated stormwater conveyance system features and Port-owned and operated structural controls.</li> </ol>	<ul style="list-style-type: none"> <li>• Inspect and clean all catch basins within the Port-managed areas not otherwise covered by a 1200-series industrial stormwater permit annually.</li> <li>• Inspect and maintain all Port-owned and operated structural controls within the Port-managed areas not otherwise covered by a 1200-series industrial stormwater permit annually.</li> </ul>	<ul style="list-style-type: none"> <li>• Track number of catch basins cleaned annually.</li> <li>• Track cleaning frequency for the Port owned and operated structural stormwater controls by facility type.</li> <li>• Track storm sewer system pipe cleaning activities annually.</li> <li>• Track updates to the stormwater system features maps.</li> <li>• Report amount of materials removed. Materials will include those collected from street sweeping (see BMP: Implement a</li> </ul>

**Table 5-8. Structural Stormwater Control Operation and Maintenance BMPs**

<b>BMP</b>	<b>Permit Requirement</b>	<b>BMP Implementation</b>	<b>Measurable Goals</b>	<b>Tracking Measures</b>
		Responsibility: Environmental Operations 5) As necessary, decant storm system and catch basin cleaning wastes in covered, water-tight drop boxes (Decant Water Collection Boxes) that drain to an approved sanitary sewer discharge point. Responsibility: MFM		Street and Vehicle Maneuvering Area Cleaning and Maintenance Program).