



# 2020 MS4 COMPLIANCE REPORT



**Prepared For:**  
ODOT National Pollutant Discharge Elimination System  
Phase I Municipal Separated Storm Sewer System Permit

**DEQ File No. 101822**

**Prepared By:**  
Oregon Department of Transportation  
June 1, 2021

## ANNUAL MS4 COMPLIANCE REPORT

Oregon Department of Transportation

June 2021

I the undersigned hereby submit this National Pollutant Discharge Elimination System (NPDES) Municipal Separated Storm Sewer System Annual Report in accordance with the Oregon Department of Transportation Statewide NPDES Permit Number: 101822, File Number: 110870.

I certify under penalty of law that this document and attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations (40 CFR 122.22(d)).

A handwritten signature in black ink, appearing to read 'Lucinda M. Moore', is written over a horizontal line.

Lucinda M. Moore  
State Maintenance & Operations Engineer

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**Appendix B:** TOCS (Spills) Report

**Appendix C:** Blue Book BMPs for Road Maintenance

**Appendix D:** EMS Sustainability Report

**Appendix E:** 2020 Maintenance District Map

## List of Acronyms

BLM	Bureau of Land Management
BMP	Best Management Practices
BO	Biological Opinion
CWA	Clean Water Act
DEQ	Oregon Department of Environmental Quality
DFI	Drainage Facility Identification
EMS	Environmental Management System
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESC	Erosion and Sediment Control
ESCM	Erosion and Sediment Control Monitoring
ESRI	Environmental Systems Research Institute
FAHP	Federal Aid Highway Program
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
GIS	Geographic Information Systems
IVM	Integrated Vegetation Management
LID	Low Impact Development
MOB	Maintenance and Operations Branch
MS4	Municipal Separated Storm Sewer System
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
OAR	Oregon Administrative Rules
ODA	Oregon Department of Agriculture
ODF	Oregon Department of Forestry
ODFW	Oregon Department of Fish and Wildlife
ODOT	Oregon Department of Transportation
OERS	Oregon Emergency Response System
OPRD	Oregon Parks and Recreation Department
OSHA	Occupational Safety & Health Division
OTC	Oregon Transportation Commission
OWEB	Oregon Watershed Enhancement Board
PNS	Pacific Northwest Snowfighters
QPL	Qualified Product List
RAZ	Restricted Activity Zone Maps
REC	Region Environmental Coordinator
RES	Resource Maps
SELDM	Stochastic Empirical Loading and Dilution Model
SPCC	Spill Prevention Control and Countermeasure
STIP	Statewide Transportation Improvement Program
SWMP	Stormwater Management Plan
TMDL	Total Maximum Daily Load
UIC	Underground Injection Control
USACOE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USFS	U.S. Forest Service
USGS	U.S. Geological Survey



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Figure 2      ODOT's 2019-2021 Legislatively Approved Budget

## 1.0 General Information

This Annual MS4 & ESA 4(d) Compliance report is submitted to the Oregon Department of Environmental Quality (DEQ) to fulfill reporting requirements for the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Discharge Permit #101822; issued August 2020.

The permit specific compliance requirements are described below. ODOT's 2021 annual report will also include a progress update on the commitments outlined and activities carried out in accordance with the Stormwater Management Program Document (SMPD). The SMPD is included as Appendix A.

## 2.0 Stormwater Management Program

### 2.1 Coordination Among Other Public Entities (Schedule A.2.a)

The State of Oregon has fifteen (15) Existing Registrants of Phase II MS4s currently under either an individual or general Phase II MS4 permit and seven (7) New Registrants who have met the eligibility requirements for the MS4 Phase II permit. In addition, MS4 Phase I permittees with individual permits include Clean Water Services, the Clackamas County Group, the Portland Group, Multnomah County, Gresham Group, City of Salem and City of Eugene.

ODOT owns highways that cross through numerous jurisdictions, including the Existing and New Registrants MS4 areas. Each new and existing MS4 permit holders has unique methods of meeting permit requirements. Additionally, transportation stormwater management differs from traditional MS4 stormwater management in several ways (See Fig. 1). For these reasons, ODOT elected to obtain an individual, transportation specific stormwater permit to manage best practices in a consistent manner statewide.

Topic	(NonTraditional) Transportation MS4	(Traditional) City/County MS4
Location	State transportation agencies often own streets and highways that can stretch for many miles, and cross numerous waterways, watersheds, and jurisdictions	Local governments are typically responsible for streets they own, which are usually in a limited geographical area
Population served by MS4	State transportation agencies often serve a transient population of drivers and passengers	Local governments often serve residents and businesses in their community boundaries
Authorities	State transportation agencies have little to no enforcement authority to implement ordinances and must use other mechanisms	Local government can develop and implement ordinances that they then enforce in their community boundaries

Fig 1. [Transportation MS4s versus Traditional MS4s](#) (EPA)

### 2.2 Maintain Adequate Legal Authority (Schedule A.2.b)

ODOT does not have the authority to implement ordinances and has limited enforcement authority. In addition, the Oregon State Constitution may limit some of ODOT's MS4 program activities. ODOT utilizes relevant regulatory mechanisms as allowed pursuant to applicable state law. These mechanisms are discussed in detail in ODOT's Stormwater Management Program Document (SMPD).

## 2.3 Stormwater Management Program Document (Schedule A.2.c)

ODOT's SMPD describes how ODOT conducts the required SMP control measures within its jurisdiction. The SMPD has been updated to include the 2020 MS4 permit obligations. The SMPD is included as Appendix A. The SMPD will be available on ODOT's [Maintenance and Operations](#) website under Publications shortly.

## 2.4 SMP Information and Metrics (Schedule A.2.d)

ODOT has established a peer group of employees from different ODOT divisions to determine what information will be beneficial to assess compliance with the SMP. ODOT's Stormwater Peer Group meets monthly. Details regarding specific metrics are included in the permit requirement sections of this report.

## 2.5 SMP Resources (Schedule A.2.e)

ODOT's Delivery and Operations Division spends resources on maintaining the highway system, bridge and pavement preservation projects; adding capacity to highways; and bicycle/pedestrian projects. A portion of highway construction funds must be used to mitigate adverse effects from stormwater runoff from new and existing impervious surfaces and/or to retrofit existing water quality facilities.

The [2019-2021 Legislatively Adopted Budget](#) allocated \$2,714,796,381 for Highway Division Expenditures (See Figure 1.) Stormwater mitigation costs vary substantially by project depending on several factors including the proximity to urban areas, geography, cost of additional right-of-way needed to accommodate stormwater management facilities, the size of the project, and proximity to receiving water bodies. A specific fiscal year 2020 stormwater investment level cannot be quantified however past environmental mitigation cost studies demonstrate that substantial highway construction program funding is invested in improving stormwater management.

### Highway Division Expenditures

	2015-2017 Actuals	2017-2019 Actuals	2019-2021 Legislatively Adopted
<b>Programs</b>			
Maintenance	488,825,399	564,754,015	566,677,478
Construction:			
STIP:			
Preservation	296,200,035	258,087,356	405,061,206
Bridge	149,597,412	251,586,832	557,030,174
Highway Safety/Ops	176,518,140	246,720,954	387,329,983
Modernization	397,154,859	198,259,374	167,404,546
STIP subtotal	1,019,470,446	954,654,516	<b>1,516,825,909</b>
Special Programs	264,637,701	289,478,396	422,819,406
Local Government Program	213,762,183	227,500,060	208,473,588
<b>Total</b>	<b>1,986,695,729</b>	<b>2,036,386,987</b>	<b>2,714,796,381</b>

Positions	2,535	2,685	2,735
Full-Time Equivalent (FTE)	2,463.54	2,528.59	2,667.70

Fig 2. 2019-2021 Legislatively Adopted Program Budget Highway Division Expenditures

ODOT's [Annual Fiscal Report](#) for fiscal year ended June 30, 2020 indicates major capital asset events during fiscal year 2020 included the following:

The I-205 Paving and Auxiliary Lanes project was completed. This two-year project improved safety and operations on I-205 including:

- Repaved approximately nine miles of I-205 in both directions between Johnson Creek Boulevard and the Glenn Jackson Bridge, creating smoother rides for travelers.
- Constructed three new auxiliary lanes, making connections from on-ramps to off-ramps easier with more time to merge, and reducing congestion.
- Installed ODOT RealTime Signs that alert drivers about crashes, congestion, road conditions and closures in real-time, allowing drivers to make travel decisions or slow down before they reach a problem area ahead.
- Made improvements to the I-205 shared use path and added water quality treatment facilities.

#### 2.5.1 Water Resources Program

Focuses on policy and working with resource and regulatory agencies to streamline permitting while improving resource protection and technical expertise. This program is responsible for assessing the impacts transportation projects have on water quality and hydrology, as well as developing measures that help protect Oregon's rivers, lakes and wetlands from those adverse effects. Water Resources staff work closely with biologists, erosion control specialists, and hydraulic engineers to find the best solutions for the problems presented by stormwater and highway runoff.

#### 2.5.2 Hydraulic Engineering Program

Provides expertise, technical support, training and policy in the field of hydrology, hydraulics, culvert stormwater and stream engineering to ensure our roadways provide a safe, effective and efficient movement of people and goods while maintaining the natural movement and treatment of water throughout our watersheds and water bodies. This Program is also responsible for ODOT's water quality facility asset management.

#### 2.5.3 Erosion and Sediment Control Program

Establishes specific measures to prevent soil erosion and off-site sedimentation to prevent pollution of water resources during project construction. The Program creates clear contract documents to facilitate project construction and satisfies the requirement for an Erosion and Sediment Control Plan.

#### 2.5.4 Maintenance and Operations Branch (MOB) Environmental Program

Provides environmental support to- ODOT Maintenance Districts statewide. MOB support, including BMP development, and providing technical guidance/advice on implementing BMPs (e.g., via training and regular interaction), is critical to ensuring that statewide Maintenance programs and practices are in compliance with the NPDES MS4 Permit. The following sections include Program efforts (successes, challenges/non-compliance and resolutions), and are intended to be a reflection of ODOT's efforts to meet permit and reporting commitments.

#### 2.5.5 Forestry Program

Timber and forest management is part of the ODOT Maintenance and Operations Branch Vegetation Management program. The ODOT Maintenance and Operations Branch employs two foresters that are certified arborists, to support the Districts in identifying and managing

hazard trees and corridor management strategies. ODOT continues its efforts to protect the highway from falling trees and limbs.

ODOT Forestry Program work efforts in 2020 include:

- Continued to work within the Eagle Creek Fire area along Interstate 84 and Old Highway 30 to evaluate and mark fire-killed or severely fire-damaged trees for removal. Additional trees were removed for highway safety along Historic Hwy 30, and along I-84.
- Conducted an extensive thinning of the forested stands at the French Prairie Rest Area along I-5 (southbound). Approximately 400 trees were removed via timber sale to open the stand and remove trees that were generally overtopped or had undesirable structural characteristics.
- Reviewed many proposed scenic buffers in Districts 1, 2B, 2C, 3, 5, 7 and 9 along scenic highways to evaluate if the highway/site would still be safe after forestry activities were completed (in terms of wind throw potential).
- Completed extensive field work along Highway 216 from Pine Grove to the west 4 miles. Trees along both sides of the road were selected and painted for retention in this 8 roadside mile project. Approximately 2,150 trees are slated to be removed in 2020 to reduce the shading on the pavement, create a fire break for the neighboring landowner and remove hazardous and generally poorly formed trees.
- Conducted a timber sale to remove wind throw-prone trees that had been felled along US101.
- Coordinated a timber sale to remove wind throw-prone trees along OR34.
- Assisted ODOT Right-of-Way Section by completing a timber cruise and appraisal for an upcoming construction project on an active slide along US101.
- Completed a hazard tree assessment on the MP97 Fire along I-5; assisted District Maintenance with fire-killed tree removal planning throughout the fire area.
- Completed a corridor plan for the removal of approximately 345 trees along a 7-mile stretch of US20.
- Completed a corridor plan for the removal of approximately 545 trees along a 6-mile stretch of OR34.
- Worked continuously for the last 1/3 of the year on fire related tree removals along several ODOT highway corridors (4 months):
- Was the speaker in an ODOT produced video about the fire damage along HWY 224 above Estacada for release to the general public.
- Provided general tree removal guidance for the PHASE 2 FEMA tree removal contracts after Phase 1 was completed.
- Provided Scenic waiver reviews and waiver request letters to the Oregon Department of Forestry along many coastal highways to proactively eliminate wind throw onto the highways.
- Worked extensively along Highway 26 in Portland area with Sylvan maintenance crew to select and remove trees to thin out the overplanted highway interchanges for several miles.
- Coordinated tree and forest management activities with Oregon Department of Forestry, Forest Service, Oregon State Parks and the Bureau of Land Management.

### 3.0 Public Education & Outreach (Schedule A.3.a)

ODOT will continue to implement an education and outreach program to inform agency staff and the public about the potential impacts of stormwater on water quality around the state.

Additionally, ODOT will explore new pathways to disseminate stormwater information to a broader audience, including the use of social media platforms. The implementation deadline for the Public Education and Outreach permit requirements is June 1, 2022.

#### 3.1 Target Audiences and Topics

Much of ODOT's training, especially with maintenance crews, demands in-person venues, which were very limited due to COVID-19 related safety precautions in 2020. In 2020 ODOT conducted outreach and education for 2 target audiences regarding stormwater issues:

##### **Audience**

- *Contractors and/or ODOT employees responsible for inspecting construction project activities*
- *Other ODOT employees*

##### **Topics**

- *Illicit Discharge identification and reporting procedures*
- *Impacts from roads and appropriate techniques to avoid adverse impacts*
- *Best management practices for litter and trash control*
- *Low-impact development/green infrastructure*

##### 3.1.2 Maintenance Education and Outreach

ODOT's Winter Maintenance Coordinator conducted six winter maintenance trainings to 35 ODOT employees. Training topics focus on winter maintenance BMPs that reduce and avoid impacts to water quality. ODOT is also involved in the Clear Roads Research Program and Pacific Northwest Snowfighters that hosts a winter maintenance conference every other year. This also satisfies the Winter Maintenance Program training requirement.

##### 3.1.3 Construction and Post-Construction Education and Outreach

ODOT's Environmental and Hydraulic Engineering staff training schedule:

2019-2020 Erosion and Sediment Control Manager Certification training season

- 12/12/2019 – 13 participated and 9 passed the exam
- 02/19-2020 – canceled due to low attendance (<5)
- 03/19-2020 – canceled due to COVID-19

2019-2020 Environmental (w/ESC inspection)

- 12/10/2019 - 29 participated and 28 passed the exam
- 01/22/2020 - 31 participated and 27 passed the exam
- 03/17/2020 – canceled due to COVID-19

The topics included stream turbidity and post-construction stormwater best management practices. These events also satisfy Construction and Post-Construction Program required training.

##### 3.1.4 Statewide Hydraulics Committee Meeting

The Statewide Hydraulics Committee Meeting was held virtually on October 27, 2020. Approximately 20 ODOT employees attended. Topics covered included trends in BMP selection, program updates, review of the updated UIC Bulletin and other stormwater issues.

### 3.1.5 EMS Program Education and Outreach

ODOT's Materials Management Program Coordinator conducted one training for ODOT Maintenance staff on the EMS Program. Training included information about types of discharges, awareness of stormwater system, maintenance of water treatment measures, and material management practices for minimizing impacts to stormwater at ODOT Maintenance Yards. The program coordinator responds to questions from ODOT Maintenance staff regarding the management of water quality features, stormwater systems, and water treatment measures at ODOT Maintenance Yards as well as questions about recycling and disposal options for wastes generated by maintenance actions. ODOT has initiated negotiations with DEQ on a Beneficial Use Determination for highway sweepings.

## 4.0 Public Involvement and Participation (Schedule A.3.b)

ODOT will continue to maintain a publicly accessible website with information on ODOT's stormwater programs. In 2020 a team was developed to complete a reorganization and update of the webpages that provide stormwater information. Progress will be detailed in the 2021 annual report. The implementation deadline for the Public Involvement and Participation permit requirements is June 1, 2022.

### 4.1 Website (A.3.b.ii)

ODOT's website currently incorporates the following:

*(A) Illicit Discharge Complaint or Report requirements (see Schedule A.3.c.iv)*

A fillable reporting form has been added to the AskODOT page. [Ask ODOT](#) is the public's first point of contact for finding information, services or needing to resolve issues with ODOT.

*(B) Official SMP documents and relevant technical information*

A copy of the proposed Stormwater Management Program Document is required to be submitted with this report. As noted previously, a copy of the SMPD is included as Appendix A and will be available online on ODOT's [Maintenance and Operations](#) webpage.

*(C) Links to all policies and/or guidance documents related to the construction and post-construction stormwater management control programs*

ODOT's Environmental and Hydraulic Engineering [Stormwater](#) and [Erosion and Sediment Control](#) pages along with [Maintenance and Operations](#) main and [Environmental Programs](#) pages contain links to policies and guidance document related to construction and post construction stormwater management programs.

*(D) ODOT's contact information for relevant staff, including phone numbers, mailing addresses, and email addresses.*

Contact information for relevant staff is publically available on ODOT's web page.

### 4.2 Public Involvement Opportunities (A.3.b.iii)

ODOT regularly offers public involvement opportunities. The permit requires that ODOT partner in or create at least two public involvement opportunities during the permit term. In 2020 the following public involvement opportunities were presented:

*(A) Public input through project planning and implementation process*

ODOT coordinates meetings about Oregon transportation system plans, programs and projects. The [Public Meetings](#) calendar page contains up to date information about scheduled public meetings and provides a link to online Open Houses. An online open house allows people to the opportunity to learn about projects and provide feedback online at a time that's convenient for them using a computer or mobile device.

*(B) Provide technical assistance to local watershed groups*

None to report at this time.

*(C) Adopt-A-Highway*

The Adopt-A-Highway Program is handled by each district individually. ODOT is developing a method to collect information from the districts for annual analysis.

*(D) Other relevant opportunities*

ODOT's MS4 permit renewal was issued in August 2020. A public comment period was required as part of that process. Several comments were received as part of that process.

## **5.0 Illicit Discharge Detection & Elimination (Schedule A.3.c)**

ODOT continues to implement and enforce a program to detect and eliminate illicit discharges into the MS4, to the extent allowable by state laws. The implementation deadline for the Illicit Discharge Detection and Elimination permit requirements is June 1, 2022.

### **5.1 Program to Detect and Eliminate Illicit Discharges**

Illicit discharges to the ODOT drainage system are identified through Road Patrols, Roadside Feature Inspections and complaints from citizens or other public agencies.

#### **5.1.1 Illicit Discharge Complaints or Reports**

In 2020 ODOT publicized a fillable form on its website that the public can use to report illicit discharges. Submission of the form directs the reported information to ODOT staff via email.

#### **5.1.2 Response to Complaints or Reports**

ODOT investigates all complaints or reports of potential illicit discharges. However, ODOT does not have legal authority over activities outside of ODOT right of way. ODOT coordinates with other agencies as appropriate to correct illicit discharges. In other situations, ODOT refers unauthorized discharges to DEQ.

#### **5.1.3 Notification of Other Authorities**

If the illicit discharge originates, or discharges to, areas out of ODOT's jurisdictional authority, ODOT notifies the proper jurisdictional authority as soon as practicable, and at least within five working days of becoming aware of the illicit discharge.



#### 5.1.4 Spill Response and Abandoned Waste

ODOT is required to respond to spills that occur anywhere on the state highway system or that impact the highway system. ODOT tracks highway emergencies that have potential to impact drainage ditch stormwater throughout the state, including the Portland, Salem, and Eugene areas. If a spill impacts a drainage ditch or waterway, ODOT is required to report the spill to OERS (Oregon Emergency Response System); the ODOT Transportation Operations Center System is also notified. Information including the location, type and amount of material spilled, and ditch/waterway that was affected is recorded. A unique event Identification number is generated to track event progression and response efforts. See Appendix B for a list of spills reported in 2020. Additional information regarding each spill is available upon request.

#### 5.1.5 Complaints Tracking

Complaints and reports of illicit discharges are tracked through conclusion. In 2020, six reports of potential illicit discharges were received and investigated by ODOT. A copy of the spreadsheet detailing the complaints and ODOT's response is available upon request.

### 5.2 Illicit Discharge Screening Program

ODOT continues to implement a screening program to detect illicit discharge through routine maintenance and road patrol.

#### 5.2.1 Routine Maintenance Inspections

ODOT maintenance crews apply the practices identified in the Routine Road Maintenance Water Quality and Habitat Guide, Best Management Practices (BMPs) (aka: the Blue Book) for maintenance operations. The Blue Book identifies BMPs for routine highway maintenance activities that may impact salmon or fish habitat, to comply with the 4(d) exemption by NMFS under ESA to meet water quality standards and MS4 permit conditions and to protect other environmental resources. For example, the Blue Book dictates when erosion and sediment control should be considered.

- The revised Blue Book is dated 2020. In-person training and a 'rollout' of the new version has been delayed due to COVID-19. A fact sheet with 'test' questions and answers will be included as Blue Books are mailed out to ODOT maintenance districts, technical staff, and managers.
- Several significant changes were made to the Blue Book during this latest revision—mostly to address improved practices for protecting cultural resources.
- Continued to implement BMPs for routine road maintenance. A summary of routine work that has been accomplished throughout the year (2020) including activity classifications and BMPs reported by the Maintenance Districts can be found in Appendix C.

Turnover at within Districts presents training challenges. ODOT is consistently looking for ways to improve and streamline guidance and training to maintain a high level of awareness and understanding.

#### 5.2.3 General Observations and Routine Road Patrol

ODOT maintenance crews conduct road patrol on a routine basis. Drive by inspections of highway features ensure there are no immediate problems or concerns impacting highway operations. Drainage ditch issues discovered during Road Patrols are addressed immediately or maintenance is scheduled appropriately, as with Roadside Feature inspections.

#### 5.2.4 Ditch Management Program

Highway drainage ditches make up the largest component of the ODOT statewide storm drain system. ODOT keeps roadside ditches functioning optimally by routinely performing ditch inspections and ditch maintenance activities. Specific work tasks and management activities that comprise the ODOT Ditch Management Program are described in the sections below.

##### 5.2.4 (a) Roadside Feature Inspections

ODOT ditches are inspected a minimum of once every three years as part of ODOT District Roadside Feature Inspections. These inspections ensure ditches are functioning in accordance with level of service defined by the ODOT Desired Conditions of Maintenance Features on State Highways – Sept 2002 (available upon request). Each ODOT District uses the Maintenance Features handbook to define adequate level of service for its highway ditches. The handbook includes descriptions of desired ditch features as well as an inspection chart that outlines maintenance work needed if ditches are functioning below level of service standards. ODOT maintains features inspection reports that describes level of service observed for each year.

##### 5.2.4 (b) Ditch Maintenance Activities

Ditch Maintenance Activities identified during Roadside Feature Inspections are either implemented immediately or scheduled as appropriate. ODOT Maintenance Activities are carried out in accordance with the Blue Book. The Blue Book lists ODOT Maintenance Activities likely to impact water and describes how these activities should be carried out using Best Management Practices (BMPs) that keep water impacts to a minimum. The Blue Book specifically addresses Ditch Shaping and Cleaning activities as well as other drainage maintenance activities that may be associated with ditch maintenance, such as Culvert and Inlet Repair and Cleaning, Channel Maintenance, and Erosion Repair.

#### 5.3 Illicit Discharge Detection and Elimination Training and Education

Training related to Illicit Discharge Detection and Elimination is captured in the Public Education and Outreach Section of this report. ODOT Blue Book Training includes information regarding identification of potential illicit discharges.

### 6.0 Construction Site Runoff (Schedule A.3.d)

ODOT's ground-disturbing construction site runoff program is detailed below. Further information is provided in the SMPD. In addition, ODOT implements the Blue Book practices on routine maintenance actions that cause ground disturbance. The implementation deadline for the Construction Site Runoff permit requirements is June 1, 2022.

#### 6.1 Compliance with Other Permits

ODOT works to ensure compliance with other applicable laws, regulations, permits, policies, or standards, relating to highway construction and maintenance.

##### 6.1.2 CWA Section 401

Individual projects that entail discharges of fill material into waters of the United States frequently require WQCs under CWA Section 401. For most projects that involve the development or redevelopment of impervious surfaces, the WQC requires preparation of a stormwater management plan documenting that the project's design includes available and reasonable best management practices (BMPs) necessary for the project to meet state water quality standards.

6.1.3 Endangered Species Act & Magnuson-Stevens Fishery Conservation & Management Act  
Highway projects that are likely to affect listed species have Section 7 take authorization under one or more biological opinions (BOs). The specific BO(s) applicable depends on whether the project conforms to the limits of programmatic BOs, the species affected, whether a US Army Corps of Engineers permit is required, and whether the project is federally funded. These regulatory mechanisms specify that projects with certain triggering features (including development and redevelopment of impervious surfaces) include available and reasonable best management practices necessary to minimize impacts to protected species. These include:

- FAHP BO (NMFS);
- FAHP BO (USFWS);
- Programmatic BO to Standard Local Operating Procedures for Stormwater, Transportation or Utilities; and,
- Individual project BOs.

6.1.4 The FAHP ESA Programmatic is monitored by ODOT and FHWA for positive environmental outcomes that result from project construction. In 2020, the 26 projects that completed construction, built facilities to treat 61.77 acres of impervious surface area. During that same time period, only 9.43 acres of new impervious surface area was created as a result of projects using the FAHP.

#### 6.1.4 Routine Road Maintenance Water Quality and Habitat Guide (“The Blue Book”)

The Blue Book, is developed and maintained by ODOT in consultation with NMFS, ODFW, and DEQ, specifies BMPs to be used when carrying out myriad maintenance activities that could otherwise have a deleterious effect on water quality and other environmental resources. The maintenance activities described in the Blue Book include both maintenance of installed post-construction stormwater BMPs, as well as stormwater management principles generally.

#### 6.1.5 Local ordinances and permits

Occasionally, ODOT projects may be subject to city, county, and special district ordinances and permits that impose additional post-construction stormwater management requirements.

#### 6.1.6 CWA Section 404 and DSL’s Oregon Removal/Fill permits

Typically, CWA Section 404 and state removal/fill permits do not directly regulate stormwater management. However, occasionally a project’s stormwater management features are part of the range of activities proposed as mitigation for aquatic impacts. When approved by the issuance of a CWA Section 404 or removal/fill permit, implementation of the mitigation plan—including stormwater management BMPs—becomes a condition of the permit.

#### 6.1.7 NPDES 1200-CA Permits

The ODOT Erosion and Sediment Control (ESC) Program helps the Agency meet the responsibilities of the NPDES 1200-CA Permits issued to each of five ODOT Regions, as well as to meet erosion control-related requirements of other permits and laws. The program is responsible for providing technical assistance, standards, practices, and tools (e.g. qualified products list (QPL) used to implement Erosion and Sediment Control (ESC) best management practices for construction and maintenance activities. Significant statewide ODOT erosion control efforts completed in 2020 are listed below:

- Assisted roadway designers and Specification writers in ODOT regions to develop plans and language consistent with the 1200-CA permit requirements.
- Provide research and erosion and sediment control contract language for hazard tree removal made necessary by wildfires.
- Provide consultation to Region 3 regarding site stabilization along Bear Creek.
- Conduct site visits to check on erosion and sediment control implementation at wildfire burn areas along Hwy 138, Hwy. 126 and Hwy 22 in Regions 2 and 3.
- Provide erosion and sediment control plans for multi-phase project for Region 4 in sensitive area along Hwy 26 at Clear Creek near Mt. Hood.
- Provided quality review of erosion and sediment control plans for Region 1 for work on Hwy 217, I-205, and I-5
- Reviewed and qualified multiple erosion and sediment control products including inlet protections, compost sock material
- Provided consultation and guidance to consultants working on ODOT projects including Zarkin Landscape Architects, David Evans and Associates, DOWL, HDR, Jacobs, OTAK and Murray Smith.
- Provided one virtual ESC Manager Training classes; 13 people attended the training. Training was limited due to COVID pandemic
- Provided two Environmental Construction Inspector trainings where 60 people attended. Training was limited due to COVID pandemic.

## **6.2 Erosion and Sediment Control Plans**

ODOT's current regional 1200-CA permit registrations pertain to construction projects having one or more acres of ground disturbance. The 1200-CA requires an erosion control plan (ESCP) that includes 29 specific elements. In addition, the 1200-CA includes 11 maintenance requirements and 14 monitoring and record-keeping requirements.

## **6.3 Erosion and Sediment Control Plans Review**

Plans for these construction projects are required to include an ESCP that includes erosion and sediment control features in appropriate locations and quantities, applicable standard specifications, special provisions and construction details. Standard Drawings and Details are available in the Environmental and Hydraulic Engineering Section's Erosion and Sediment Guidance Materials which are located on ODOT's website. Plans for construction are reviewed for content and appropriateness by subject matter experts at each submittal milestone: Design Acceptance, Preliminary, Advanced and Final Plans.

## **6.4 Construction Site Inspections and Documentation**

Oregon Standard Specifications for Construction for ESC are developed to repeat and support items identified in the 1200-CA permit. The ESC specifications require that the contractor comply with the NPDES 1200-CA permit, other applicable permits, and federal, state and local laws, rules and regulations. Specifications are part of the final contract documents and must be fulfilled as part of the contract agreement.

## **6.5 Response Procedures**

ESC requirements are contract requirements; therefore, if conditions are not satisfied ODOT will require the work be performed or payment will not be provided. Oregon Standard Specifications Section 00140 – Scope of Work detail the remedies available to ODOT if the contract requirements are not met. Egregious violations will result in stop-work orders that can last until the failures that cause the violations are repaired and cleanup is completed, and may result in

enforcement action by DEQ. Construction personnel that disregard construction directives may be removed from projects at ODOT's discretion.

ODOT is committed to maintaining a "trusted partner" relationship with regulatory agencies. In that context, when permit violations occur, ODOT self-reports to the appropriate regulatory agency. In the event that a contractor's Erosion and Sediment Control Monitoring (ESCM) is not performing required duties, that ESCM may be removed from the project. If the ESCM withholds information or falsifies a monitoring report, then their certification will be permanently revoked.

## **6.6 Construction Runoff Control Training and Education**

Construction trainings are listed above and also captured in the Public Education & Outreach section of this report.

## **7.0 Post-Construction Site Runoff (Schedule A.3.e)**

ODOT's post-construction site runoff program reduces discharges of pollutants and controls stormwater runoff from project sites in its coverage area. ODOT will continue to evaluate the existing training program to ensure ongoing compliance with all applicable standards. The implementation deadline for the Post-Construction Site Runoff permit requirements is June 1, 2023.

### **7.1 Compliance with Other Permits**

See Compliance with Other Permits in Section 6.1 above.

### **7.2 Reduce Barriers to Low Impact Development**

ODOT design procedures strongly prefer LID techniques because they tend to result in superior environmental outcomes, are preferred by regulatory agencies, are usually easier to maintain in proper working order, and sometimes require no special maintenance. As a result, most ODOT projects required to manage post-construction stormwater runoff successfully employ LID techniques. When ODOT satisfies its stormwater management obligations using non-LID techniques, it's almost always due to physical constraints, singularly or in combination, that are not practicable to overcome. Examples of such constraints include:

- Insufficient distance between the impervious surface and the receiving water;
- Native soils that aren't conducive to infiltration;
- Competing environmental resources such as wetlands, streams, and cultural resources that would have increased impacts as a result of LID implementation that would either be legally unpermittable or would render the LID treatment counterproductive;
- Vertical head or drop limitations that physically prevent conveying water to LID facilities; and
- Right of way limitations (in cases where the potential benefits of treatment are too small to outweigh the high costs of obtaining right of way, rendering right of way impracticable)

ODOT works within these constraints to achieve the reduction of pollutants to the maximum extent practicable. It is not within ODOT's legal authority or physical ability to further remove or reduce these barriers. If new adequately effective LID techniques are developed that allow greater ability to overcome barriers like those described above, ODOT will add them to its range of potential BMP solutions.

### 7.3 Post-Construction Stormwater Management Requirements

ODOT continues its commitment to implementing post-construction stormwater management requirements. The ODOT Hydraulics Manual (HM) provides guidance for designing hydraulic features related to ODOT's transportation design including stormwater management guidance. Specifically, chapters 12 and 14 presents guidance on a) flow control standard, b) water quality standard, c) structural stormwater control design and specifications, and d) the stormwater selection process (i.e. stormwater mitigation options). The hydraulic/stormwater design deviation, Requirement E (allowance for alternative compliance) is covered in chapter 3 of the HM.

ODOT has also developed stormwater technical guidance documents to supplement the HM that provides technical direction to staff and consultants working on ODOT projects including:

- [GE07-03\(B\) Underground Injection Control Systems \(UIC\)](#),
- [GE16-01\(B\) Stormwater Control Facility Operation and Maintenance Plan Development Drafting Guidance](#), and
- [GE16-02\(B\) Stormwater Operation and Maintenance \(O&M\) Manuals – Update](#).

Stormwater technical standards and specifications include several boiler plate specials provisions for structural stormwater BMPs: Water Quality Structures (SP01010), Ponds (SP01011), Biofiltration Swale (SP01012), Bioslope (SP01013) and Filter Strip (01014).

These documents are available on the ODOT Oregon.gov webpage.

<https://www.oregon.gov/odot/GeoEnvironmental/Pages/Hydraulics-Manual.aspx>  
<https://www.oregon.gov/odot/Engineering/Pages/Technical-Guidance.aspx>  
[https://www.oregon.gov/ODOT/Business/Pages/Standard\\_Specifications.aspx](https://www.oregon.gov/ODOT/Business/Pages/Standard_Specifications.aspx)

### 7.4 Stormwater Management Plan Review

Before initiating construction, ODOT reviews and approves project-specific documents and plans for sites that require an engineered stormwater control facility as part of the ODOT Project Development phase. These documents include Hydraulic Reports, Stormwater Reports, Stormwater Management Plans, FAHP Stormwater documentation, and Plans, Specifications and Estimates (PS&E).

The Project Development phase includes the Design Acceptance, Preliminary Plans, Advance Plans, Final Plans, Plans, Specification and Estimates (PSE), Advertisement and Contract Award, including review of documents and deliverables at each milestone. The Plan Development Phase follows after Design Acceptance and provides detailed information about the expectations, requirements and deliverables for Preliminary Plans, Advanced Plans and Final Plans milestones of project development. Advanced Plans includes hydraulics/stormwater reports that documents the design of engineered stormwater control facilities. The PS&E phase prepares the project documents for contracting.

After the project contract award, the project transitions to the Construction Management phase for construction. Environmental studies including stormwater management plans, hydraulic reports, stormwater reports, and FAHP stormwater documentation are completed during the Project Development to capture stormwater design documentation. ODOT has a template for Stormwater Management Plans and a typical Stormwater Design Report and Hydraulic Report layout in the Chapter 4 of the HM.

These documents are available on the ODOT Oregon.gov webpage.

- [Stormwater Management Plan Template](#)
- [SWMP QC Process](#)
- [Project Delivery Guide](#)
- [Hydraulics Manual Chapter 4 Documentation](#)

## **7.5 Long-Term Operation and Maintenance (O&M)**

ODOT has developed Standard Maintenance Tables and O&M Manual templates for its water quality facilities. Project Delivery staff prepare O&M Manuals for newly constructed water quality facilities. The manuals are provided to maintenance upon completion of construction. ODOT is retroactively creating O&M manuals for existing facilities. The O&M manuals are also available on ODOT's TransGIS platform.

ODOT maintains an inventory of water quality facilities using assigned drainage facility identification (DFI) numbers. The water quality facility database is updated annually to include newly assigned DFI numbers. Inspection logs are provided to maintenance staff for inventory and inspection. Water quality facilities are typically inspected annually. Crews document on inspection forms the condition of the facility and whether maintenance is required. Forms are turned in to the Maintenance and Operations Branch for tracking and are available upon request.

There were 1272 assigned DFIs in 2020. DFI numbers for additional facilities are requested prior to construction and the time from the request to completion of the facility can take up to two years. Not all of the facilities that have been assigned a DFI number are active so there is a small margin of error between assigned and active DFIs. In 2020 ODOT inspected 543 water quality facilities. The inspection rate of water quality facilities was significantly reduced in 2020 due to the COVID pandemic and response to wildfires.

ODOT is continually updating its GIS mapping system as new facilities are added and is working to retroactively add legacy facilities.

## **7.6 Training and Education**

Training conducted is captured in the Public Education and Outreach section of this report.

## **8.0 Pollution Prevention & Good Housekeeping (Schedule A.3.f)**

ODOT continues to implement and adaptively manage its Environmental Management System (EMS) Program, Spill Prevention Control and Countermeasure (SPCC) Program and other relevant programs to minimize potential impacts to stormwater generated on ODOT-owned facilities. The implementation deadline for the Pollution Prevention and Good Housekeeping permit requirements is June 1, 2021.

### **8.1 O&M strategy for existing Water Quality Facilities**

Please see Long-Term Operation and Maintenance in Section 7.5.

### **8.2 Environmental Management System for ODOT Maintenance Yards**

The Environmental Management System (EMS) Manual is ODOT's written stormwater management plan for the maintenance yards. The EMS program provides guidance for pollutant

source identification in addition to consistent, practical, BMPs for source control and pollutant removal. ODOT maintenance yards participate in the EMS program.

The program was developed in 2004 and implemented in 2005. Program updates were completed in 2009, 2013 and 2019. The program defines best management practices and benchmarks for managing products and wastes. The EMS Sustainability Report is attached as Appendix D and includes evaluation of performance measures and a summary of hazardous waste generated.

#### **8.2.1 Maintenance Yard Handbooks**

ODOT Maintenance yards have been prioritized (high, moderate, or low) for potential risk to stormwater to determine where additional support might be needed to protect waterbodies. Potential risk is based on a point ranked system that considers fixed location characteristics (e.g. precipitation, nearby surface water, and natural resources) and site specific characteristics (e.g. impervious area, bulk storage, and washing activities). The ranking system does not include mitigation measures (e.g. source control, secondary containment, or water treatment) that have been implemented at the facility to reduce potential risks.

- MOB is systematically creating site-specific handbooks for maintenance yards. The handbooks summarize key environmental concerns at the facility (e.g. permit requirements, fuel tanks, and wellhead protection zones) and reference the EMS Manual (or other documents) for additional details.
- Handbooks have been completed for all high risk yards and all moderate risk yards in Phase I and Phase II communities.

#### **8.3 Catch basin inspection and cleaning**

Catch basin inspection and cleaning is typically performed on an annual basis. Some areas require more frequent cleanings.

#### **8.4 Integrated Vegetation Management Program**

The ODOT Integrated Vegetation Management (IVM) program is required under Oregon statute ORS 634.660. The program develops agency guidance for managing noxious weeds, landscape plantings, roadside timber, and other vegetation issues associated with ODOT rights-of-way. Goals of the ODOT IVM program include encouraging self-sustaining vegetation and reducing the need for herbicides, fertilizers, and irrigation. ODOT continually explores new vegetation management practices, technologies, and partnerships to improve its IVM program. Primary IVM management tasks completed by ODOT in 2020 include:

- Provided internal ODOT IVM training that included seven regional meetings in the spring. These training sessions included information regarding herbicide use, employee safety, pesticide spill response, law review, vegetation management BMPs, storm water quality feature management, pollinator protection and control of noxious weeds. Classes provided continuing education credits needed by ODOT herbicide applicators to renew Public Pesticide Applicator licenses.
- Provided training to help ODOT employees obtain their Public Pesticide Applicator Licenses. The program covers pesticide laws and safety, label comprehension and roadside vegetation management. Three classes were held in 2020.



## **8.5 Litter Control**

ODOT cleans up litter and debris found along state highways using its own employees (permanent or temps), contractors, and volunteers. The litter control work is managed individually by District.

## **8.6 Adopt-A-Highway**

The Adopt-A-Highway program provides an opportunity for volunteers to clean up litter and remove noxious weeds along state highways. Activities may also include graffiti removal and maintenance of existing landscaped areas.

## **8.7 Appropriate Materials Disposal**

ODOT has developed guidance for appropriate materials disposal and documentation. The guidance is outlined in the EMS Manual. Hard copy tracking logs are available upon request.

## **8.8 Spill Prevention Control and Countermeasure Program**

Program elements are written in site-specific SPCC Plans that describe controls and procedures that have been implemented to prevent oil from reaching nearby waterbodies if a spill occurs. ODOT Maintenance yards that have aggregate storage of more than 1,320 gallons of oil or fuel in containers that are 55 gallons or larger, provided the facility is sited where a potential spill could impact navigable waterways (as defined in the Oil Pollution Act) have fully implemented the elements of the Plans.

- Existing site specific controls and practices were maintained.
- A review and evaluation of the SPCC Plan must be completed at least once every five years.
- An annual, self-guided SPCC refresher training course is available on-line.

## **8.9 Stormwater Infrastructure Staff Training**

Training conducted is captured in the Public Education and Outreach section of this report.

## **9.0 Winter Maintenance Program (Schedule A.3.g)**

ODOT's Winter Maintenance Program was developed to limit water quality impacts from winter maintenance activities. The implementation deadline for the Winter Maintenance Program permit requirements is June 1, 2022.

### **9.1 Mechanisms for Documentation**

Winter maintenance materials are stored and applied in conformance with BMPs outlined in the ODOT EMS Manual and Maintenance Guide. Additional details are provided in the Winter Maintenance Annual Report.

### **9.2 Winter Maintenance Strategy**

Winter maintenance material storage BMPs outlined in the EMS Manual. Application BMPs are outlined in the Blue Book. EMS audits visually inspect storage areas.

There have been no changes to the Winter Maintenance Strategy since last report.

### **9.3 Winter Maintenance Annual Report**

ODOT Winter Maintenance Annual Report is being finalized and will be sent separately.

## 9.4 Research

ODOT conducts research projects that evaluate environmental impacts associated with highway operations, maintenance, and construction activities. Research is used to assess the effectiveness of various ODOT environmental management efforts, such as mitigation sites, highway or drainage facility designs, or BMPs. ODOT also uses research to identify and characterize pollutants associated with highway runoff. Information collected from research and monitoring projects is used by ODOT to modify highway activities to become more effective or less likely to impact the environment. The following projects are recently completed or currently on-going:

- Work is continuing on a long-term research project to monitor the hydrology and water quality in the Salmon River Estuary. This research is tracking sea-level rise and climate change effects on land use and local highway.
- ODOT is a member of the Pacific Northwest Snowfighters (PNS). The PNS is dedicated to provide a Pacific Northwest Snow Conference on a regular basis. The intent of the conference is to share best practices and research findings for the use of winter maintenance materials and equipment.
- ODOT is a member of the Clear Roads winter maintenance pooled fund. Clear Roads is dedicated to driving innovation by evaluating materials, equipment and methods in real-world conditions. Clear Roads took over management of the deicer QPL from the PNS.
- ODOT recently completed research with US Geological Survey on a project that utilizes the Stochastic Empirical Loading and Dilution Model (SELDLM) to analyze highway network impacts on watersheds. Final report is posted on the ODOT Research web page.
- ODOT is wrapping up the USGS research collaboration “Assessing the Impact of the ODOT Winter Salt Pilot Project on Neighboring Streams and Groundwater” (SPR 812). This research extends and further develops findings generated from the ODOT Salt Pilot (2012-2017). The project is expected to be published in mid-2021.
- Completed Stormwater Characterization Monitoring for high/low traffic volume highways and east-side/west-side medium traffic volume highways. Preliminary findings are available in past annual data reports. Final results are now compiled and published in the [Highway Runoff Database](#) 1b by the USGS.
- ODOT is hosting the FHWA Pooled Fund for calibration and testing of the Stormwater Testing and Technology Center Pilot which will be completed by September 2021. This center is designed to test the maintainability of stormwater BMPs using controlled flow from actual highway runoff with up to 3 BMPs in parallel.

## 9.5 Winter O&M Staff Training

ODOT is member state is several winter maintenance research consortiums and committees dedicated to improving the efficiency and effectiveness of winter maintenance operations. The MOB is in the process of implementing AVL/Telematics to track winter maintenance material use.

Winter Maintenance Program trainings are reported in the Public Education and Outreach section of this report.

## 10.0 Stormwater Retrofit Strategy (Schedule A.3.h)

ODOT executive management has been provided a briefing for consideration when developing the long term infrastructure funding strategy. Infrastructure funding supports projects that fix or preserve the state's transportation system, including bridges, pavement, culverts, safety features, bicycle and pedestrian facilities, ADA, and others. The establishment and implementation of a Stormwater Retrofit Program will create the financial and project programming infrastructure necessary to implement a more strategic approach to stormwater management. The program's goal will be to fulfill the permit requirements to protect fresh water aquifers, improve water quality, and control peak flows into receiving surface waters by systematically retrofitting and sustaining our existing stormwater conveyance infrastructure. The implementation deadline for the Stormwater Retrofit Strategy is June 1, 2024.

## 11.0 Monitoring Requirements (Schedule B)

ODOT submitted its 2021 MS4 Monitoring Plan on January 15, 2021. The monitoring plan describes stormwater monitoring proposed by ODOT to meet the stormwater monitoring requirements of its MS4 permit. Results will be reported as they become available and analyzed in the following report.

## 12.0 MS4 Data Compilation (Schedule D.1)

ODOT's Stormwater Peer Group, which includes staff from Research, Maintenance and Environmental Hydraulics and Engineering Sections, is developing a strategy to compile and store the most updated digital data related to the physical and discharge characterization of its MS4. This process will include the development of a database and/or GIS interface that will be available to DEQ upon request. Progress towards implementing this control measure will be discussed in future reports. The implementation deadline for the MS4 Data Compilation permit requirements is June 1, 2024.

### 12.1 Past Monitoring and Assessment Efforts Related to Stormwater

Staff from Research, Maintenance and Environmental Hydraulics and Engineering Sections are working together to compile this information.

### 12.2 Retrofit Opportunities Analysis and Priority List

The Retrofit Strategy Document will be included in the MS4 Data Compilation as required.

### 12.3 Stormwater Data Review and Data Gap Analysis

Staff from Research, Maintenance and Environmental and Hydraulic Engineering Sections are taking preliminary steps to determine steps to identify geographic or subject-area gaps in data.

### 12.4 Research Opportunities

Winter Maintenance Materials Monitoring

As discussed in Section 11.0, ODOT conducts research projects that evaluate environmental impacts associated with highway operations, maintenance, and construction activities and uses that information to assess the effectiveness of various ODOT environmental management efforts.

The following data pertaining to winter maintenance is included in ODOT's Winter Maintenance Annual Report:

- Location of maintenance yards and structures containing winter maintenance materials;
- Locations of use of winter maintenance materials;
- Quantities used in relation to distance (e.g. pounds per mile); and
- Other potentially useful information found through research that may help inform the effect that winter maintenance materials are having on receiving waters.

### **12.5 Other Research Opportunities**

The Oregon Department of Transportation Research Program identifies new transportation research problems, coordinates research projects, and responds to requests for research information from throughout ODOT. The administration of the research program is conducted in partnership with universities, the American Association of State Highway and Transportation Officials, or AASHTO, Transportation Research Board, or TRB, Federal Highway Administration, or FHWA and other agencies.

## **13.0 TMDL Implementation Plan (Schedule D.2)**

### **13.1 Updated TMDL Implementation Plan**

ODOT and DEQ will work collaboratively to update its TMDL Implementation Plan. Work to update this plan will commence during this permit term. ODOT will submit a draft plan to DEQ by June 1, 2023.

### **13.2 Performance Measures**

DEQ incorporated performance measures in Schedule A.3.c, d, e, and f to address water quality impairments and EPA-approved TMDL allocations issued to date. Compliance with the permit's terms and conditions is presumed to be in compliance with applicable TMDL allocations issued before the effective date of this permit.

### **13.3 Total Maximum Daily Load Program**

ODOT will work with DEQ to update its Maximum Daily Load Program in accordance with the updated TMDL Implementation Plan.

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## Appendix A

### Stormwater Management Program Document

Municipal Separate Stormwater System (MS4)  
Stormwater Management Program Document

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Prepared for the Oregon Department of Environmental Quality  
Submitted by the Oregon Department of Transportation  
June 1, 2021

## ABOUT THIS DOCUMENT

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The Stormwater Management Program Document (“SMPD”) was drafted as a requirement of ODOT’s MS4 permit, DEQ File No. 101822, issued on August 11, 2020. The SMPD outlines how ODOT meets the requirements of the MS4 permit through project development, construction, and maintenance.



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## 1.0 ODOT's Responsibilities

### 1.1 Coordinate With Other Public Entities

ODOT may, at its discretion, elect to work with or delegate implementation of one or more SMP control measures to another entity. Under such an agreement, ODOT would be responsible for compliance with any permit conditions that another entity fails to implement.

### 1.2 Maintain Adequate Legal Authority

This section provides information on ODOT's legal authority to oversee its storm system. ODOT has also included in this section spending restrictions as defined in the Oregon State Constitution, which may limit some of ODOT's MS4 program activities.

- State statutes and regulations that give ODOT the legal authority to control illicit discharges to its storm system are identified in Schedule A.3.c.ii.A.
- The following is a summary of MS4 legal authority requirements as stated in 40 CFR 122.26 (d)(2)(i) and the state statutes that enable ODOT to address them. ODOT is a state agency and not a municipality, but has addressed the 40 CFR municipal legal authority requirements as listed.

*Control through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from sites of industrial activity.*

Primary authority to control introduction of pollutants to the ODOT storm sewer system and to control quality of storm water discharge is found in ORS 374.305 to 374.330. These statutes require written permission from the Oregon Department of Transportation to place or construct facilities on highway right of way. Facilities include any "approach road, structure, pipeline, ditch, cable or wire, or any other facility, thing or appurtenance." Written permission is also required prior to the substantial alteration of any such facility and prior to any change in the manner of its use. This requirement applies to any storm sewer or storm connection on ODOT right of way.

ORS 374.305 to 374.330 also reference ODOT's ability to issue a facility permit. A facility permit can be conditioned upon compliance and have attached applicable standards for storm water quality and requirements for control or removal of pollutants. The current administrative rules adopted to regulate permits for miscellaneous utility connections are found in Oregon Administrative Rules (OAR) Chapter 734, Division 55.

The contracting authority set forth above and ORS 283.110 allows ODOT to enter into an interagency agreement with the Department of Environmental Quality to exercise its authorities under ORS 468B.

*Prohibit through ordinance, order or similar means, illicit discharges to the municipal separate storm sewer.*

ODOT has limited legal authority to prohibit illicit discharges and may only prohibit these discharges if they originate on ODOT property. This authority can be exercised through the permitting regulations of ORS 374.305 to 374.330. ORS 374.320 allows ODOT to take action if permit requirements are not met. This includes removal, repair or elimination of hazards if necessary, and billing the permit holder for the cost. ORS 374.307 allows ODOT to remove facilities constructed without permit authority. Violation of these statutes and the administrative rules under OAR 734-55, constitute citable offenses as a misdemeanor under ORS 374.990.

ORS 377.650 to 377.655 provide for removal actions if personal property is left or displayed on state highway. Such personal property is found to be a public nuisance under ORS 377.650. Discharge into the storm sewer system can be found to be a public nuisance and abated or enjoined by ODOT through this rule.

*Control through ordinance, order or similar means the discharge to a municipal separate storm sewer of spills, dumping or disposal of materials other than storm water.*

Many discharge actions on highway rights of way are regulated through administrative rules. Prohibited activities on highway right of way are covered under OAR 734-20-095. OAR 734-20-145 covers removal of spilled loads and wrecked vehicles and OAR 734-20-150 addresses closure of highways.

Runoff that originates from property abutting ODOT right of way and then flows into the ODOT storm system is generally not regulated by ODOT due to its jurisdictional limitations. In such cases, ODOT's procedure is to first attempt to persuade the landowner or responsible party to stop the discharge, and if unsuccessful in that effort, refer the matter to DEQ or applicable MS4-permitted entity.

*Control through interagency agreements among other public entities the contribution of pollutants from one portion of the municipal system to another portion of the municipal system.*

ODOT has broad interagency contracting authority found under ORS 366.556 to 366.576, ORS 190.110 and 190.240 and ORS 283.110. Under these authorities, agreements may be executed under which ODOT and other public entities may coordinate stormwater management strategies and infrastructure.

*Require compliance with conditions in ordinances, permits contracts or orders; and carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and noncompliance with permit conditions including the prohibition on illicit discharges to the municipal separate storm sewer.*

ODOT is able to exercise control over the permits it issues under ORS 374.305. Permits may be canceled if there is noncompliance with permit conditions. Permits may also require indemnification and public liability insurance from permit holders in order to cover any costs associated with permit non-compliance.

The above statutes allow ODOT the authority to carry out inspections, surveillance, or monitoring as needed to determine compliance with permit conditions (including locating pollutant discharges to the ODOT system).

ODOT has authority to regulate discharges originating within ODOT right of way. ODOT does not have legal authority to regulate illegal discharges that originate outside of its right of way or jurisdiction. ODOT must accept up-gradient stormwater discharges consistent with Oregon Drainage Law.

Article IX, Section 3A of the Oregon Constitution limits the use of revenue from gas and motor vehicle taxes.

*These taxes shall be used “...exclusively for the construction, reconstruction, improvement, repair, maintenance, operation and use of public highways, roads, streets, and roadside rest areas in this state....”*

## 2.0 Stormwater Management Program (SMP) Control Measures

ODOT will continue to implement all existing SMP control measures, and will begin to revise its SMP control measures, as needed, in order to implement new control measure components.

### 2.1 Public Education and Outreach

ODOT will continue to implement an education and outreach program to inform agency staff and the public about the potential impacts of stormwater on water quality around the state. Additionally, ODOT will explore new pathways to disseminate stormwater information to a broader audience, including the use of social media platforms.

#### 2.1.1 Education and Outreach Program

ODOT’s public education and outreach program includes educational efforts targeting the three audiences listed in Schedule A.3.a.iv. The goal of the education and outreach program is to inform agency staff, stakeholders, and the public of the impact of stormwater on water resources and to identify potential pathways to reduce those impacts at work, while traveling on state highways, and at home.

### 2.1.2 Stormwater Education Activities

ODOT will continue to provide educational messages, trainings or activities through printed and/or electronic materials, social media platforms, or other relevant educational events or workshops at least twice per year.

**Table 2.1: Public Education and Outreach Implementation Schedule**

Program Deliverables	Target Implementation Date
Update ODOT's Stormwater Website	June 1, 2022
Develop a Social Media Strategy to Disseminate Stormwater Information	June 1, 2022
Pursue opportunities to partner with local jurisdictions, as available	Ongoing

## 2.2 Public Involvement and Participation

ODOT will continue to implement the components described in Schedule A.3.b.ii-iii. New components will be implemented according to the dates identified in Table 2.2. If a component is deemed unfeasible, justification will be provided in the subsequent MS4 Annual Report and ODOT will consult with DEQ, as necessary.

### 2.2.1 Publicly Accessible Website

ODOT will continue to maintain a publicly accessible website with information on ODOT's stormwater programs. The website will include guidance and technical information, Illicit Discharge Detection and Elimination (IDDE) reporting, the SMPD, stormwater staff contact information, and educational materials

### 2.2.2 Public Involvement Opportunities

Public involvement opportunities are often provided or engaged at the local level. ODOT provides the following statewide opportunities:

**Table 2.2: Public Involvement and Participation Implementation Schedule**

Program Deliverables	Target Implementation Date
Develop a Social Media Strategy to Disseminate Stormwater Information	June 1, 2022
Pursue opportunities to partner with local jurisdictions, as available	Ongoing
Identify strategies for encouraging participation in ODOT's Adopt-A-Highway Program	June 1, 2022
Update ODOT's Stormwater Website	June 1, 2022

## 2.3 Illicit Discharge Detection and Elimination (IDDE)

ODOT will continue to implement the agency's current IDDE program while exploring opportunities to improve reporting pathways. ODOT will develop a formalized internal IDDE tracking and reporting plan and will update the Stormwater website with information on how to identify and report an illicit discharge, as outlined in Table 2.3.

### 2.3.1 Regulatory Mechanisms

ODOT's general authority to maintain the state highway system is detailed in Section 1.2 above.

Regulations regarding the placement or construction of facilities (including pipes and ditches) on state highway right of way are defined under ORS 374.305 through 374.330. Criminal penalty for violation of these rules is defined under ORS 374.990. Removal, prevention and/or repair of these facilities are defined under ORS 374.307, 374.320, and 366.455.

Rules allowing ODOT to use its authority under ORS 374.305 for the placement or construction of facilities including pipes and ditches are provided in OAR 734-55. Additional authority is provided in ORS 377.650 to 377.655.

These regulations give ODOT the authority to control what facilities are placed within state-owned right of way. Any connection to ODOT's MS4 that has not received a permit could be subject to removal, per the statutes and rules outlined above; however, an illicit discharge may enter the system through a natural flow path for which ODOT does not have the authority to regulate. In these circumstances, ODOT relies on other local, state, and federal agencies with the statutory authority to regulate such discharges.

### 2.3.2 Spill Response and Abandoned Waste

Emergency spill response procedures, objectives, and policies are detailed in existing ODOT manuals such as the [EMS Manual](#), [HazMat Program Manual](#), and the [ODOT First Responder Guide to Highway Incident Response](#).

Spill response requirements are also identified in other state and federal permits currently held by ODOT, including WCPF Permit #UIC-103167.

HazMat Groups in each Region have different spill response responsibilities. In Regions 1 and 3, Region HazMat staff provide on-call assistance that responds to highways spills around the clock. In Regions 2, 4, and 5, Region HazMat staff are called for assistance at the discretion of the District Manager if a large spill requires ongoing cleanup and the District needs technical assistance to determine whether cleanup is appropriate and protective of ODOT property and the environment.

ODOT maintenance workers, litter crews, and others who work within ODOT right-of-way occasionally find abandoned waste that may or may not be identifiable. Region HazMat staff provide technical assistance in these circumstances, including the facilitation of testing and proper disposal.

### 2.3.3 Response to Complaints or Reports

Illicit discharges to the ODOT's MS4 are identified through Road Patrols, Water Quality Facility Inspections or public complaints. Minor illicit discharges identified in the field can often be corrected upon discovery. ODOT investigates reports of illicit discharges as soon as practicable, but no later than 5 working days after notification, unless there is a threat to human health, welfare, or the environment. For discharges, including spills, that constitute a threat to human health, welfare, or the environment, ODOT will respond within 24 hours. Spills, or other illicit discharges, that may endanger human health or the environment are reported in accordance with all applicable federal and state laws, including notification to the Oregon Emergency Response System.

#### 2.3.3.1 Notification of Other Authorities

ODOT does not have legal authority over activities outside of ODOT right of way. Correcting illicit discharges may involve jurisdictional authority issues. ODOT involves other agencies as appropriate to correct illicit discharges, often referring unauthorized discharges that enter ODOT's system to DEQ. ODOT will continue to work collaboratively with other MS4 permittees to identify opportunities to improve communication between agencies in regard to IDDE. If an illicit discharge originates outside the ODOT's right of way, ODOT will notify the appropriate jurisdictional authority within five working days of becoming aware of the illicit discharge.

#### 2.3.3.2 Complaint Tracking

ODOT will maintain a complaint tracking system for all illicit discharge complaints received. The information will be kept according to the records retention requirements in the permit and is available for review upon request. The tracking system documents the following:

- Date the complaint was received;
- Staff responding to the complaint;
- Date the investigation was initiated;
- The jurisdictional authority to whom the complaint was referred to, as applicable;
- The outcome of any ODOT staff investigation; and,
- Corrective action(s) taken to eliminate the illicit discharge, as applicable.

Complaint tracking information will be summarized in each MS4 Annual Report.

### 2.3.4 ODOT Road Patrol

ODOT inspects ditches and other stormwater facilities through routine road patrols. Road patrols are conducted by ODOT maintenance workers as drive by inspections of highway features to ensure there are no immediate problems or concerns impacting highway



operations. ODOT road patrol is conducted frequently; daily in high-traffic or resource concern areas. Drainage ditch and/or illicit discharge issues discovered during road patrols are either addressed immediately by maintenance staff or are reported to the IDDE coordinator (currently the Clean Water Program Coordinator in Maintenance and Operations).

### 2.3.5 Illicit Discharge Detection and Elimination Training and Education

HazMat and other ODOT staff responsible for responding to spills and other hazardous materials that may be encountered within the state highway right of way receive specialized training to maintain certifications. ODOT maintenance crews receive training about IDDE and how to respond to a complaint through internal stormwater training, including Blue Book and EMS training classes.

Table 2.3: Illicit Discharge Detection and Elimination Implementation Schedule

Program Deliverables	Target Implementation Date
Develop internal reporting and tracking procedures for IDDE	June 1, 2022
Update stormwater website to include information about identifying and reporting potential illicit discharges	June 1, 2022

## 2.4 Construction Site Runoff Control

ODOT will continue to implement a construction site runoff control program to reduce the discharge of pollutants from construction sites. ODOT will continue to evaluate the existing training program to ensure ongoing compliance with all applicable standards. [ODOT's Erosion Control Manual](#) provides ODOT staff and contractors with best management practices in erosion and sediment control for personnel involved in the design and construction and maintenance of ODOT construction projects. The Construction Section's [Erosion and Sediment Control Manager Certification course](#) is detailed on ODOT's website.

### 2.4.1 Compliance with other NPDES permits

Stormwater discharges from ODOT construction sites are regulated through the requirements of the ODOT's five regional NPDES 1200-CA permit registrations. DEQ is replacing the 1200-CA permits with the 1200-C. In 2021, ODOT began the process of negotiating regional 1200-C permits for regulation of its construction sites. This document will be updated to reflect the 1200-C permit requirements as soon as those permits are in effect.

#### 2.4.1.1 NPDES 1200-CA Compliance Strategy

ODOT construction projects having one or more acres of ground disturbance are currently controlled by the regional 1200-CA permits. The 1200-CA requires an erosion control plan (ESCP) that includes 29 specific elements. In addition, the 1200-CA includes 11 maintenance requirements and 14 monitoring and record-keeping requirements.

Plans for these construction projects are required to include an ESCP that includes erosion and sediment control features in appropriate locations and quantities, applicable standard specifications, special provisions and construction details. Standard Drawings and Details are available in Environmental and Hydraulics Engineering Section's [Erosion and Sediment Guidance Materials](#). Plans for construction are reviewed for content and appropriateness by subject matter experts at each submittal milestone: Design Acceptance, Preliminary, Advanced and Final Plans.

ESCPs consist of the plan, how the plan will be implemented, the monitoring, maintenance, record keeping requirements, and reporting requirements relating to the upgrade and improvement of the plan for the duration of the construction project. Contractors are directed to update the plan as necessary to adapt to the project's changing sediment and erosion control risks. Contractors control the schedule and the means and methods of construction, so they are best positioned to lead construction site runoff control. ODOT project managers verify that contractors comply with contract and permit conditions. ODOT's [Standard Specifications](#), Section 00280, detail the ESCP's minimum requirements for all Project Sites and conditions.

Contractors are required to designate an Erosion and Sediment Control Manager (ESCM) who is trained and certified to lead the project's erosion and sediment control work. The ESCM's duty requirements include:

- Managing and ensuring proper implementation of the ESCP;
- Accompanying Engineer during field review of the ESCP prior to construction activities;
- Monitoring rainfall;
- Inspecting the Erosion & Sediment Control (ESC) facilities for effective functioning;
- Inspections occur weekly during active construction;
- Inspections occur within 24 hours of rainfall of 1/2" or greater;
- Inspections occur every two weeks during inactive periods;
- Ensuring ESC facilities are regularly maintained;
- Mobilizing crews to enact immediate repairs of ESC facilities that are not effectively functioning or are not installed according to ODOT Standard Details;
- Recording actions taken to clean up sediment & regularly updating monitoring forms; and,
- Updating the ESCP monthly and within 24 hours of changes made on the project site.

Oregon Standard Specifications for Construction for ESC are developed to repeat and support items identified in the 1200-CA permit. The ESC specifications require that the contractor comply with the NPDES 1200-CA permit, all other applicable permits, and all federal, state and local laws, rules and regulations.

Specifications are part of the final contract documents and must be fulfilled as part of the contract agreement. Requirements in the specifications include:

- Limit disturbed areas;

- Install perimeter controls;
- Develop wet season plan for ESCP that could include work suspension;
- Stabilize disturbed areas;
- Prevent erosion (using vegetation, mulch, matting, compost or other soil cover);
- Control runoff (using check dams, slope drains, interceptor swales or dikes or other runoff control measures);
- Control sedimentation (using construction entrances, inlet protection, sediment barriers, sediment traps or other sediment control measures);
- Monitor receiving waters; and,
- Remove sediment if it has left project site, or as part of maintenance.

ESC requirements are contract requirements; therefore, if conditions are not satisfied ODOT will require the work be performed or payment will not be provided. ODOT's [Standard Specifications](#), Section 00140, Scope of Work, detail the remedies available to ODOT if the contract requirements are not met. Egregious violations will result in stop-work orders that can last until the failures that cause the violations are repaired and cleanup is completed, and may result in enforcement action by DEQ. Construction personnel that disregard construction directives may be removed from projects at ODOT's discretion.

ODOT is committed to maintaining a "trusted partner" relationship with all regulatory agencies. In that context, when permit violations occur, ODOT self-reports to the appropriate regulatory agency. In the event that a contractor's ESCM is not performing all required duties, that ESCM may be removed from the project. If the ESCM withholds information or falsifies a monitoring report, then their certification will be permanently revoked.

#### 2.4.2 ODOT Erosion Control Policy in addition to 1200-CA Requirements

[ODOT Technical Advisory GE 12-01\(A\)](#) outlines a process to provide appropriate erosion control for all construction projects having the potential to cause erosion, including those construction projects not subject to the 1200-CA. This process utilizes Section 00280 of ODOT's Standard Specifications and Boilerplate Special Provisions to apply the appropriate erosion and sediment control requirements based on risk of erosion and quantity of ground disturbance. The Technical Advisory groups projects into three categories listed below:

1. No Risk – These are construction projects that do not involve any ground disturbance. Erosion control is not required.
2. Low Risk – These are projects that involve less than one acre of ground disturbance and do not exhibit high risk erosion factors such as:
  - a. Proximity to a wetland or waterway within 100 feet;
  - b. Erodible soils or disturbance of steep slopes;
  - c. Wet season construction and soil disturbance;
  - d. Multiple construction season schedule;

- e. Probability that the area of ground disturbance will increase to an area greater than one acre; and
  - f. Stringent local requirements that affect the ESCP and monitoring requirements. These projects require development of an ESCP, but do not require an Erosion and Sediment Control Manager certified by ODOT and have a reduced inspection frequency as compared to high risk projects. Frequency varies based on potential risk factors such as forecasted weather, proximity to water, etc.
3. High Risk – These are construction projects having one or more acres of ground disturbance – and thus subject to 1200-CA permit conditions – or construction projects having less than one acre of ground disturbance when high risk erosion factors (listed above) are present. Erosion and sediment control requirements of the 1200-CA are applied to these projects. Inspection frequency for high risk site will be higher than low risk but will still vary.

#### 2.4.3 Construction Runoff Control for Maintenance Activities

Routine maintenance activities that cause ground disturbance are guided by the [Blue Book](#). Stormwater management BMPs that apply to all maintenance activities are described. BMPs related to specific maintenance activities are also included as appropriate in those sections.

#### 2.4.4 Additional Permits

Construction site runoff is also regulated by adhering to requirements set by other permits, including:

- Clean Water Act (CWA) Section 404 permits;
- CWA Section 401 water quality certifications (WQCs); and
- Oregon Department of State Land's (DSL's) Oregon Removal/Fill Permit.

These permits and certifications regulate in-water work and sediment entering Waters of the State and Waters of the United States. Conditioned biological opinions, including ODOT's Federal Aid Highway Programmatic biological opinions (FAHP).

The FAHP biological opinions issued by National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) provide take coverage under the Endangered Species Act (ESA) and the Magnuson-Stevens Act for federally-funded projects. Protecting threatened or endangered fish requires that ODOT prevent pollution from our projects or facilities from impacting the aquatic habitats of these species. Most rivers in the state provide potential habitat for endangered species and sediment is considered a pollutant, so control of construction site runoff is integral with the FAHP.

#### 2.4.5 Construction Runoff Control Training and Education

ODOT will ensure that all staff responsible for ESCP reviews, site inspections, and enforcement of ODOT's requirements are trained or otherwise qualified to conduct such activities.

ODOT's [Environmental Construction Inspector Certification course](#) provides inspectors with practical knowledge and standard industry practices for conducting inspections. Inspectors gain an understanding of their responsibilities to verify compliance with project requirements as well as mandates set forth by ODOT or the federal government, or both. The Inspector Certification is valid for five years.

ODOT's [Erosion and Sediment Control Manager Certification](#) course that provides individuals with practical knowledge and standard industry practices for performing erosion and sediment control management activities on ODOT projects. Participants must pass a test to receive ESCM certification. Certification is required to perform ESCP reviews and inspections. The ESCM is valid for five years, ensuring training will occur at least once during the permit term.

**Table 2.4: Construction Site Runoff Control Implementation Schedule**

Program Deliverables	Target Implementation Date
Assess Training Program Effectiveness	June 1, 2022
Obtain Regional 1200-C permits to replace existing 1200-CA permits	June 1, 2023

## 2.5 Post-Construction Site Runoff Control

ODOT will continue to implement a post-construction site runoff control program to reduce discharges of pollutants from existing transportation infrastructure. ODOT will continue to evaluate the existing training program to ensure ongoing compliance with all applicable standards.

### 2.5.1 Other Regulatory Mechanisms

In addition to the MS4 permit, post-construction stormwater management is required by the following regulatory mechanisms:

#### 2.5.1.1 CWA Section 401 WQCs

Individual projects that entail discharges of fill material into waters of the United States frequently require WQCs under CWA Section 401. For most projects that involve the development or redevelopment of impervious surfaces, the WQC requires preparation of a stormwater management plan documenting that the project's design includes all available and reasonable best management practices (BMPs) necessary for the project to meet state water quality standards.

#### 2.5.1.2 Endangered Species Act & Magnuson-Stevens Fishery Conservation & Management Act

Highway projects that are likely to affect listed species have take authorization under one or more biological opinions (BOs). The specific BO(s) applicable depends on whether the project conforms to the limits of programmatic BOs, the species affected, whether a US Army Corps of Engineers permit is required, and whether the project is federally funded. These regulatory mechanisms specify that projects with certain triggering features (including development and

redevelopment of impervious surfaces) include all available and reasonable best management practices necessary to minimize impacts to protected species. These include:

- FAHP BO (NMFS);
- FAHP BO (USFWS);
- Programmatic BO to Standard Local Operating Procedures for Stormwater, Transportation or Utilities; and,
- Individual project BOs.

#### *2.5.1.3 Routine Road Maintenance Water Quality and Habitat Guide (“The Blue Book”)*

The Blue Book, which is developed and maintained by ODOT in consultation with NMFS and DEQ, specifies BMPs to be used when carrying out myriad maintenance activities that could otherwise have a deleterious effect on water quality and other environmental resources. Use of the BMPs described in the Blue Book ensures that ODOT’s Routine Road Maintenance Program is exempt from ESA take provisions, and that the Program is adequate to protect and conserve listed fish. The maintenance activities described in the Blue Book include both maintenance of installed post-construction stormwater BMPs, as well as stormwater management principles generally.

#### *2.5.1.4 Local ordinances and permits*

Occasionally, ODOT projects may be subject to city, county, and special district ordinances and permits which impose additional post-construction stormwater management requirements.

#### *2.5.1.5 CWA Section 404 and DSL’s Oregon Removal/Fill permits*

Typically, CWA Section 404 and state removal/fill permits do not directly regulate stormwater management. However, occasionally a project’s stormwater management features are part of the range of activities proposed as mitigation for aquatic impacts. When approved by the issuance of a CWA Section 404 or removal/fill permit, implementation of the mitigation plan—including stormwater management BMPs—becomes a condition of the permit.

### **2.5.2 Prioritization of Low Impact Development Requirements**

Preference of low-impact development (LID) stormwater management techniques is a core principle of ODOT’s post-construction stormwater management program. LID techniques are required to be considered in the previously-described regulatory instruments, and has consequently been prioritized as part of ODOT’s BMP selection practices since 2008. LID principles—including mimicking natural hydrology, preserving natural resources, and dispersing and infiltrating stormwater close to where it falls—are manifested not only in the referenced regulatory mechanisms, but also in the BMP selection tool first established by the Stormwater Action Team, an interagency cooperative through which ODOT’s modern stormwater program was established. This principle continues to be propagated in internal guidance we use routinely:

- **The Blue Book:** The Blue Book requires promoting sheet flow for stormwater wherever appropriate through such actions as corrective blading or grading.

- [Water Resources Specialist Manual](#): This manual is used by project environmental staff to ensure that project designs conform to regulatory requirements, and specifies that BMPs are preferred which rely on infiltration as a primary pollutant removal mechanism (e.g., natural dispersion, bioslopes, infiltration basins, permeable pavement, etc.).
- [Hydraulics Manual](#): This manual is used by ODOT hydraulics engineers to choose and design stormwater management system elements as part of highway project design. It specifies that LID BMPs should be evaluated for feasibility on all projects, and includes a section providing guidance on LID elements, prioritization, site suitability evaluation, and LID options.
- [Operational Notice PD-05 \(Water Quality Mitigation\)](#): PD-05, which is the operational notice that directs ODOT project development teams to comply with regulatory stormwater management requirements, directs staff to provide water quality treatment for runoff from project areas using regulator-preferred LID strategies wherever practical.

### 2.5.3 Post-Construction Stormwater Management Requirements

ODOT is unique among Oregon MS4 permittees in that it has no regulatory authority to impose or enforce stormwater management requirements or technical standards on private property owners. ODOT does engage in analogous activities however, including:

- Performing reviews of plans for private development projects adjacent to highways that involve expanding or reconstructing highway surfaces (for example, to add a turn lane into a newly-constructed parking lot) to ensure that they include highway stormwater management features where appropriate.
- Reporting to regulatory authorities any third parties who are discovered to be discharging suspected pollutants to the public waters via ODOT's drainage infrastructure.

Additionally, for ODOT's own projects, ODOT implements site performance and treatment standards specified by the regulatory mechanisms described above, implements structural stormwater control design specifications through the Hydraulics Design Manual, and implements stormwater mitigation options on- and off-site where necessary.

### 2.5.4 Post-Construction Site Runoff Plan Review

As a non-regulatory agency, ODOT does not review the runoff plans of other entities, except as described in 3.e.iv. above. However, for projects that affect stormwater, post-construction runoff is documented primarily through four types of documents, each having their own purposes, audiences, and review mechanisms:



Table 2.5.a: Post-Construction Site Runoff Plan Review

Document (prepared by)	Purpose	Audience	Review Mechanism
<b>Hydraulics report</b> (hydraulics engineer)	Documents design goals, engineering calculations, and solutions for projects with engineered BMPs	Project development team (PDT; internal) and project files	Peer reviewed by another engineer; input provided by water resources specialist in ODOT region environmental unit
<b>Post-construction stormwater management plan (SWMP)</b> (water resources specialist / biologist)	Documents how project design meets 401 stormwater criteria	DEQ <sup>1</sup>	Peer reviewed by region environmental staff and water resources program leader; SWMPs for projects covered by individually-permitted projects are reviewed by DEQ as part of its WQC process.
<b>FAHP stormwater report</b> (water resources specialist / biologist)	Documents compliance with FAHP BOs	NMFS	Peer reviewed, then submitted to NMFS liaison; take reported annually
<b>Project development and construction plan sheets</b> (project designers)	Design and communication tool during project development, then a construction tool	PDT, construction office, and contractor	Reviewed by entire PDT at several stages, finalized by specification engineer

### 2.5.5 Long-Term Operation and Maintenance (O&M)

ODOT's Hydraulics Program tracks stormwater facility assets, the operations and maintenance (O&M) manuals for each facility, and related program data. As of 2020, ODOT maintains more than 1,200 facilities statewide. Stormwater facilities include:

- Stormwater treatment facilities such as swales, ponds, filter strips, sedimentation basins, bioslopes, proprietary structures that use vaults and oversized manholes or tanks, and pretreatment manholes;
- Stormwater storage facilities such as ponds, tanks, and vaults;
- Low impact development (LID) best management practices (BMPs); and,
- Underground Injection Control (UIC) systems.

<sup>1</sup> Most SWMPs—for projects approved under nationwide permits—are reviewed by the water resources program coordinator to ensure 401 compliance, and may be subject to DEQ review to support 401 certification. DEQ is therefore considered the audience for all SWMPs.



Each stormwater facility is assigned a unique drainage facility identification (DFI) number. The DFI number is used to link the stormwater facility with an O&M manual and with ODOT's asset management systems. ODOT's stormwater inventory is available through TransGIS, a web-based program accessible to the public.

Each stormwater facility is required to have a dedicated O&M manual that provides information about facility maintenance and operation. Copies of the facility manuals are distributed to the maintenance district where the facility is situated. Each manual includes:

- The facility type;
- How the facility operates;
- The inspection schedule;
- A list of required maintenance work;
- Waste material handling and contacts;
- Appendix A: A facility operational plan, profile and details; and,
- Appendix B: As-constructed facility plans and details.

In addition to assigning a DFI number, field markers are also installed at each facility site to help locate and identify the stormwater facility, and support asset management data collection. DFI field marker guidance is provided in the [ODOT Hydraulics Manual](#).

There are three types of markers used to identify ODOT facilities or alert maintenance crews of the location of stormwater facility maintenance areas. A Type S1 marker is used to indicate the start and end of stormwater facility maintenance areas. The purpose of the Type S2 marker is to display the facility drainage identification number.

Maintenance crews refer to the appropriate O&M manual using the ID number assigned to each facility. A Type S3 marker is used to stamp a drainage facility identification number onto the top of access covers of underground treatment and storage facilities that use vaults, oversized manholes, and tanks.

ODOT Maintenance Crews are generally responsible for the ongoing maintenance of these facilities as required in the facility O&M manuals and the maintenance tables provided in ODOT's Maintenance Guide. Facilities are inspected annually and necessary maintenance is completed as soon as practicable after discovery of a deficiency. These actions are documented on inspection forms which are entered into the Water Quality Facility Program database.

#### 2.5.6 Training and Education

ODOT provides training and education as needed through a variety of means to employees who deal with post-construction stormwater management features.

Water resources specialists and biologists:

- Water resources specialist manual;

- Biology manual;
- FAHP User's guide;
- Direct organizational communication of urgent issues;
- Quarterly discipline meetings;
- Discipline leads providing formal training; and,
- Sharing information internally about additional training opportunities provided by outside providers.

Hydraulic engineers:

- Hydraulics Manual;
- ODOT Policies;
- Standard Construction Specifications;
- Standard Drawings;
- Standard Details;
- Qualified Products List;
- O&M manual templates;
- FAHP User's guide;
- Direct organizational communication of urgent issues;
- Monthly senior engineer discipline meetings;
- Quarterly statewide discipline meetings;
- Discipline leads providing formal training; and,
- Sharing information internally about additional training opportunities provided by outside providers.

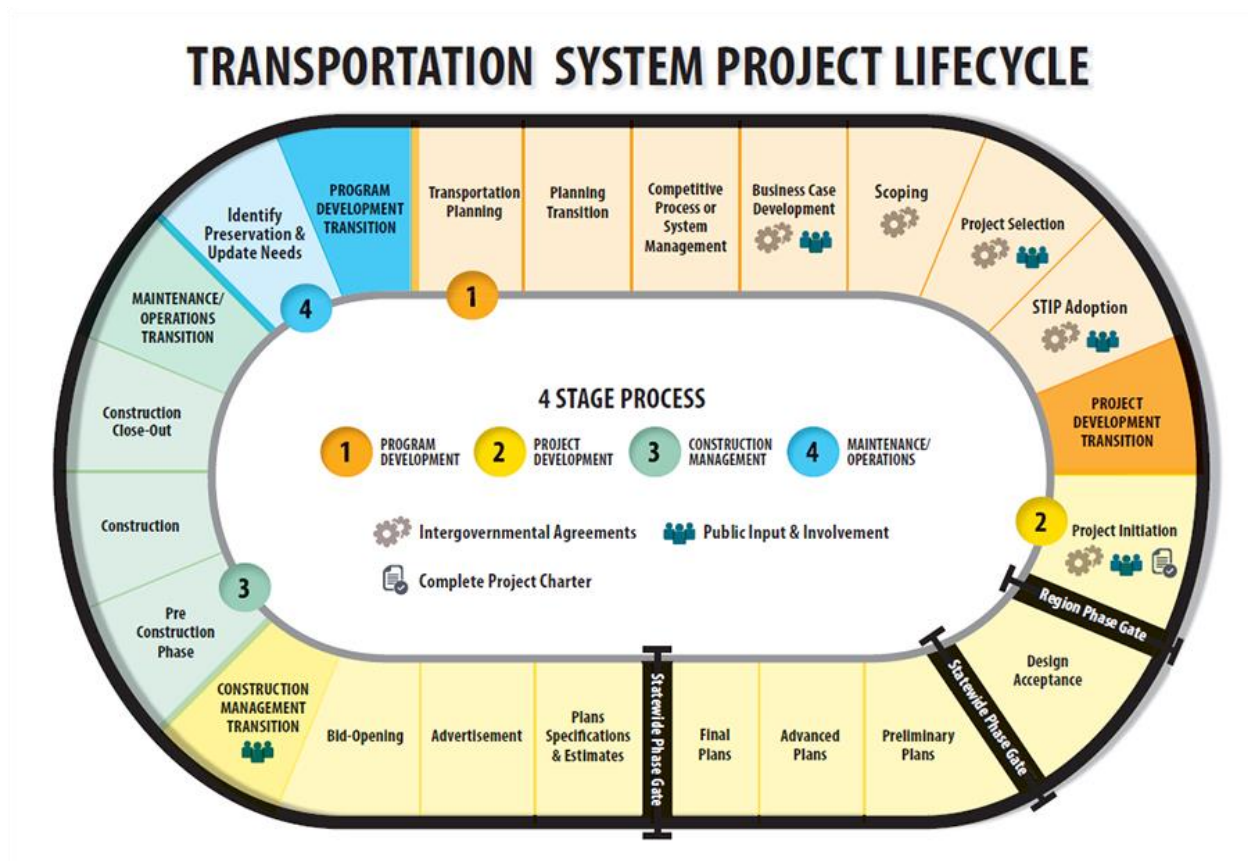
Maintenance:

- Blue Book Training: The maintenance activities described in the Blue Book include both maintenance of installed post-construction stormwater BMPs, as well as stormwater management principles generally.
- Water Quality Facility Work Group: Maintenance staff, technical experts, and statewide program leads are part of a work group that meets to discuss treatment facilities, maintenance strategies, and emerging technologies.

**Table 2.5.b: Post Construction Program Implementation Schedule**

<b>Program Deliverables</b>	<b>Target Implementation Date</b>
Assess Training Program Effectiveness	June 1, 2022
Continue to Evaluate Innovative Stormwater Mitigation Options	Ongoing
Explore Opportunities to Improve Stormwater Treatment through the Project Delivery Process	June 1, 2023

The [Project Delivery Guide](#) explains the Project Delivery Process in detail. Stormwater is addressed from scoping through design and construction and, ultimately, handoff of constructed facilities to maintenance



## 2.6 Pollution Prevention and Good Housekeeping

ODOT will continue to implement and adaptively manage the Environmental Management System (EMS) Program, Spill Prevention Control and Countermeasure (SPCC) Program, and other relevant programs to minimize potential impacts to stormwater generated on ODOT-owned facilities.

### 2.6.1 Operation and Maintenance Strategy for Existing Controls

Please see Section 2.5.5 above. The Operation and Maintenance Strategy for existing controls is the same as the Long-Term Operation and Maintenance Strategy for post-construction controls.

### 2.6.2 Environmental Management System Program

ODOT developed an Environmental Management System Program in 2004 to provide consistent direction and expectations for the storage, handling, and disposal of materials typically found at ODOT Maintenance Facilities. This program has continued to be implemented through [Highway](#)

[Policy MAI-31](#), Environmental Management and Operations of Maintenance Compounds, and is updated every 5 years.

### [2.6.2 Integrated Vegetation Management Program](#)

The ODOT Integrated Vegetation Management (IVM) program is required under Oregon statute ORS 634.660. The program develops agency guidance for managing noxious weeds, landscape plantings, roadside timber, and other vegetation issues associated with ODOT rights-of-way. Goals of the ODOT IVM program include encouraging self-sustaining vegetation and reducing the need for herbicides, fertilizers, and irrigation. ODOT continually explores new vegetation management practices, technologies, and partnerships to improve its IVM program. Specific actions to meet this requirement will be included in the annual report.

### [2.6.3 Litter control, including Adopt-a-Highway](#)

ODOT cleans up litter and debris found along state highways using its own employees (permanent or temps), contractors, and volunteers. The litter control work is managed individually by District. The Adopt-A-Highway program provides an opportunity for volunteers to clean up litter and remove noxious weeds along state highways. Activities may also include graffiti removal and maintenance of existing landscaped areas. ODOT will explore opportunities to encourage participation in the Adopt-A-Highway program.

### [2.6.4 Material and waste disposal](#)

ODOT has developed guidance for appropriate materials disposal and documentation. The guidance is outlined in the EMS Manual. Hard copy tracking logs are available upon request.

### [2.6.5 Spill Prevention Control and Countermeasure Program](#)

Program elements are written in site-specific SPCC Plans that describe controls and procedures that have been implemented to prevent oil from reaching nearby waterbodies if a spill occurs. ODOT Maintenance yards that have aggregate storage of more than 1,320 gallons of oil or fuel in containers that are 55 gallons or larger, provided the facility is sited where a potential spill could impact navigable waterways (as defined in the Oil Pollution Act) have fully implemented the elements of the Plans.

### [2.6.6 Training and Education](#)

Training and yard audit details for ODOT Maintenance Facilities are provided in the EMS Program Manual. Other training requirements are completed as part of Blue Book training.

[Table 2.6: Pollution Prevention and Good Housekeeping Implementation Schedule](#)

<b>Program Deliverables</b>	<b>Target Implementation Date</b>
Analyze participation in the Adopt-A-Highway program	June 1, 2022
Submit EMS Annual Report as part of the MS4 Annual Report	Annually

## 2.7 Winter Maintenance Program

ODOT will continue to implement the existing Winter Maintenance Program components while exploring opportunities to improve efficiency and limit impacts to receiving waters.

### 2.7.1 Winter Materials Management

ODOT will continue to store all winter maintenance products in compliance with the guidelines detailed in the EMS Program. Details about storage and training requirements for winter materials can be found in the EMS Program document.

### 2.7.2 Winter Maintenance Strategy

ODOT's current Winter Maintenance Strategy includes phasing in the use of solid salt in keys areas, defining principles to guide further expansion, and evaluating and adaptively managing environmental best practices to reduce impacts to water quality. The 2019 Strategy and all subsequent Strategy updates can be found at <http://www.oregon.gov/ODOT> or by contacting ODOT's Maintenance and Operations Branch – Environmental Section at (503) 986-3008.

### 2.7.3 Winter Maintenance Annual Report

ODOT will continue to produce a Winter Maintenance Annual Report which will be included as an appendix to the MS4 Annual Report. Data metrics may change over time due to availability and reporting, but will generally include information about the type and quantity of materials used by geographic area.

### 2.7.4 Training and Education

ODOT provides Winter Maintenance Training through two primary venues:

- Winter Maintenance Training for operators/applicators; and,
- EMS annual training and auditing relating to proper storage of winter maintenance materials.

Table 2.7: Winter Maintenance Program Implementation Schedule

Program Deliverables	Target Implementation Date
Provide copies of SPR 812	Upon Completion
Develop and implement a calibration manual for material application equipment	June 1, 2022
Continue to participate in ODOT and/or other research projects	Ongoing
Submit Winter Maintenance Annual Report as part of the MS4 Annual Report	Annually

## 2.8 Stormwater Retrofit Strategy

ODOT will initiate the development a Stormwater Retrofit Strategy during this permit cycle. This program will include prioritization methodology, screening criteria, and funding options.<sup>2</sup> A list of prioritized projects may be completed, if practicable, during this permit cycle.

### 2.8.1 Stormwater Retrofit Strategy Components and Objectives

The Stormwater Retrofit Strategy may address, but is not limited to, the following stormwater components:

- ODOT's TMDL Implementation Plan;
- Existing Facility Maintenance and Replacement (including Flow Control Requirements);
- Inclusions of treatment of runoff emanating from contributing impervious areas that extend beyond a highway project's stormwater trigger areas; and,
- Innovative stormwater mitigation alternatives that extend beyond project-by-project mitigation.

The components included in the Stormwater Retrofit Strategy will be determined during the program's development. ODOT may solicit feedback from DEQ and other regulatory agencies during the development of the program, as appropriate.

### 2.8.2 Project Prioritization Methodology

ODOT will develop methodology to aid in the prioritization of projects that meet the objectives of the program. The resulting prioritized list will be used to assign funding, highlight potential cost-sharing opportunities with other MS4 permittees, and identify regional stormwater treatment needs.

### 2.8.3 Stormwater Retrofit Strategy Document

ODOT will develop a Stormwater Retrofit Strategy Document to capture the prioritization, rationale, and identification of project locations, including which program component(s) the project will address.

**Table 2.8. Stormwater Retrofit Strategy Implementation Schedule**

Program Deliverables	Implementation Date
Develop a statewide Stormwater Retrofit Strategy, including funding and prioritization methodology	June 1, 2024

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<sup>2</sup> Some retrofit concepts may require review to determine consistency with the aforementioned Constitutional expenditure limits.

## SCHEDULE B - MONITORING AND REPORTING REQUIREMENTS

### 1. Compliance Evaluation

ODOT will provide an annual evaluation of compliance as outlined in Schedule A and Schedule D as part of the MS4 Annual Report.

### 2. MS4 Annual Report

No later than June 1 each year, ODOT will submit an MS4 Annual Report to DEQ as specified in Table B.1 below. The reporting period for the MS4 Annual Report is from January 1 through December 31 of each year. Reporting periods for subsequent MS4 Annual Reports is specified in Table 2 below.

**Table B.1. MS4 Annual Report Deadlines**

MS4 Annual Report	Reporting Period	Due Date
1st Year Annual Report	January 1, 2020 - December 31, 2020	June 1, 2021
2nd Year Annual Report	January 1, 2021 - December 31, 2022	June 1, 2022
3rd Year Annual Report	January 1, 2022 - December 31, 2023	June 1, 2023
4th Year Annual Report	January 1, 2023 - December 31, 2024	June 1, 2024
5th Year Annual Report	January 1, 2024 - December 31, 2025	June 1, 2025

### 3. Monitoring Requirements

ODOT submitted its 2021 MS4 Monitoring Plan to DEQ on January 15, 2021. Results will be provided as they are received and reported on in the following annual report.

### 4. Submissions

ODOT will provide DEQ with one hard copy of the MS4 Annual Report until e-reporting is initiated and any supplemental information required by the due date in Table B.1, above.

Additionally, all Annual Reports, attachments, and other required submittals will be sent to DEQ at [MS4Stormwater@deq.state.or.us](mailto:MS4Stormwater@deq.state.or.us).

### 5. Recordkeeping/Records Retention

ODOT will retain records and copies of all information pertinent to the requirements of the MS4 permit for a period of at least five years after the permit's expiration date.



## SCHEDULE D - SPECIAL CONDITIONS

### 1. MS4 Data Compilation

Since 1999, ODOT has collected an array of stormwater data for permit compliance, litigation, and other program-specific needs. These data collection efforts have often fulfilled a singular requirement or need and have not been compiled into one database for evaluation.

### 2. Stormwater Data Compilation

During this permit term, ODOT will compile all available data relevant to the MS4, including characterization, research, mapping, and other applicable data sets. This data may include, but is not limited to, the following:

- All available outfall inventories that are within Phase 1 and II Communities completed since 1999;
- All available highway stormwater runoff characterization data collected by ODOT or consultants contracted by ODOT since 1999;
- All available monitoring data collected by ODOT or consultants contracted by ODOT since 1999; and,
- Other Relevant Stormwater Data collected by ODOT or consultants contracted by ODOT since 1999
- Other sources of data may include:
  - Water Quality Facility Program;
  - Winter Maintenance Program;
  - Integrated Vegetation Management Program;
  - EMS Program; and,
- Data received from other MS4 permittees, DOTs, and state and federal agencies.

### 3. Stormwater Data Review and Gap Analysis

Upon completion of Schedule D.1.i., ODOT will develop a database (e.g., Excel spreadsheet or other), and/or GIS interface to be used to manage available ODOT stormwater data. This database will be used to conduct an evaluation and analysis of all known stormwater data to identify any data gaps. Data gaps may include geographic gaps (i.e., regional data needs) or subject area gaps (i.e., pollutant-specific data). A GIS interface may also be used to conduct spatial analyses and to display data points such as outfall locations. This analysis will be provided to DEQ no later than June 1, 2024.

### 4. Additional Data Collection

Upon completion of Schedule D.1.ii, ODOT may, in consultation with DEQ, elect to collect additional stormwater data necessary to close any identified data gaps. Data collection efforts may include, but are not limited to, the following:

- Research projects;
- Literature reviews;
- Partnerships with other permittees, DOTs, and/or other state and federal agencies;



- Computer modeling;
- Physical data collection; and,
- GIS analysis.

Table D.1: MS4 Data Compilation Implementation Schedule

Program Deliverables	Implementation Date
Identify Known Existing, Applicable Data Sets	June 1, 2022
Develop Database and/or GIS Platform for Data Management and Analysis	June 1, 2023
Input all Data into Database/Platform(s) and Conduct Data Gap Analysis	June 1, 2024

## Appendix B

### TOCS Spill Report

# TOCS Hazmat Involved Attributes - 2020

Event ID	Highway	Event From MP No	GIS Latitude	GIS Longitude	Month	Hazmat Involved Chemical	Hazmat Involved Food Product	Hazmat Involved Fuel	Hazmat Involved Oil	Hazmat Involved Other Material	Highway Ditch	Waterway Affected
20T002536	SALMON RIVER	11.0000	45.04889	-123.78802	January 2020				1		1	
20T006095	KLAMATH FALLS-LAKEVIEW	36.1000	42.40722	-121.34549	January 2020					1	1	
20T007192	CENTRAL OREGON	207.5000	43.77822	-117.82173	January 2020			1	1			1
20T007790	SALEM-DAYTON	13.0000	45.04760	-123.08273	January 2020				1		1	
20T009390	EAST PORTLAND FREEWAY	9.4500	45.36654	-122.59746	January 2020			1				1
20T009617	CASCADE HWY SOUTH	.5800	45.36471	-122.58452	January 2020			1				1
20T010685	PACIFIC	251.0000	44.87760	-122.99941	February 2020					1	1	
20T015078	NORTH SANTIAM	63.0000	44.66004	-121.95464	February 2020			1			1	1
20T016459	NORTH SANTIAM	33.5000	44.75603	-122.40861	February 2020			1			1	
20T017475	HILLSBORO-SILVERTON	25.5000	45.24243	-122.95020	February 2020			1			1	
20T027269	EAST PORTLAND FREEWAY	21.0200	45.52445	-122.56511	April 2020			1			1	
20T031967	O NEIL	10.0000	44.33701	-120.99178	April 2020				1	1		1
20T034861	CENTRAL OREGON	9.1600	44.02942	-121.14232	May 2020				1		1	1
20T043123	ELKTON-SUTHERLIN	19.7000	43.42820	-123.39861	June 2020			1			1	
20T045454	PACIFIC	216.0000	44.38070	-123.06105	June 2020			1	1			1
20T046703	PACIFIC	24.1000	42.27744	-122.81086	June 2020			1				1
20T046785	EAST PORTLAND FREEWAY	9.0000	45.36383	-122.60623	June 2020			1				1
20T047989	SALEM-DAYTON	8.0000	45.11711	-123.06428	June 2020					1	1	
20T049304	CRATER LAKE	29.0000	42.65996	-122.69932	June 2020			1			1	
20T055103	COLUMBIA RIVER	56.0600	45.69617	-121.67076	July 2020			1				1
20T064672	NEHALEM	38.9800	45.97630	-123.36176	August 2020			1			1	
20T074168	WILSON RIVER	15.5000	45.51599	-123.61813	September 2020				1		1	
20T076260	WARM SPRINGS	113.0000	44.70139	-121.16239	September 2020			1			1	
20T081617	WILLAMETTE	6.0000	43.95630	-122.90439	October 2020				1		1	
20T083968	PACIFIC	94.0000	42.87719	-123.24258	October 2020			1	1		1	1
20T089361	WILLAMETTE	13.0000	43.90790	-122.78284	November 2020				1	1	1	
20T089617	WILSON RIVER	2.5300	45.46205	-123.79257	November 2020			1			1	
20T095768	PACIFIC	48.0000	42.42192	-123.16171	November 2020			1				1
20T099236	COOS BAY-ROSEBURG	43.0000	42.96324	-123.85720	November 2020				1	1		1
20T102430	UMPQUA	42.0000	43.66693	-123.46986	December 2020				1		1	1

## Appendix C

### ODOT Routine Maintenance Activities 2020

**Routine Road Maintenance:**

ODOT Maintenance crews implement Best Management Practices (BMPs) identified in “The ODOT Routine Road Maintenance Water Quality and Habitat Guide Best Management Practices” (the Blue Book) on a daily basis. Listed below are examples provided by ODOT crews as to how, when, and where routine road maintenance BMPs were implemented during the 2020 calendar year. BMP listings are organized by geographic location as defined by Oregon Watershed Enhancement Board (OWEB) watershed boundaries and corresponding ODOT Districts.

**North Coast Basin (Siuslaw, Mid-Coast, North-Coast)*****ODOT District 1***

- Implemented the use of bio-bags.
- Scheduled tree and brush work outside of bird nesting season.

***ODOT District 5***

- Crew 2504 deployed silt fence and certified straw bales at mp 19.5 hwy 58 while reconstructing the driveway entrance to stockpile site due to presence of water. Contractor cleaned out stockpile site at mp 23 hwy 58. Close proximity to a stream. Crew used chips from different project to spread over the disturbed area to prevent erosion and to help mitigate the mud that was left.
- Crew 2520 - 626 Culvert inlet cleaning, Dam removal-coordinate with the REC for removal procedures to manage stream flow. 169 Bridge cleaning- Bridge washing is done in the winter months when water is actively flowing. Water is pushed to the ends of the bridge to sheet off in vegetated areas. 162 Bridge Repair- Coordinate with the REC for in water work periods, permit needs and historic significance's.
- Crew 2502 - Act 120 Ditch cleaning and reshaping: 121 minor culvert and inlet cleaning/hand cleaning. Crews use a vacator to suck up the silt build up to get the ditch and culvert inlet/outlet to as built condition. Act 132/133 brushing: when brushing the BMP's are checked for the area, IF it is a WQF, or SMA, Adam Roberts is consulted; This crew has a note book put together of all, BMP's, SMA's, WQF's, and straight line maps anytime and ditching, brushing, mowing, or spaying is being done they know to check the book first. The note book is up date and maintained to adjust to changes within the district. BMP is utilized for activities 120-125 and 130-133.
- Crew 2501 – Osprey nesting tree had died and was deemed a hazard tree during nesting season and was active. REC worked with forester and power company to first delay the tree removal until the birds had fledged and replace the tree with a nesting pole.
- Crew 2502 - We have a Water quality features book that has the location, and photo of each WQF for each section within the district, as well as and protect plant or invasive weed. It lists the BMP's for maintenance also. In District 5, we inspected our swales twice a year.

**South Coast Basin (Umpqua, Coos, Coquille, Ten Mile, Rogue, South-Coast)*****ODOT District 7******ODOT District 8***

- Vegetation management (Activity 132) - we had several sites where a maintenance crew performed hazard tree removal, brush mowing, etc. The maintenance crew scheduled this work to occur during the non-nesting season so we avoided take of birds protected by the Migratory Bird Treaty Act. When we did need to remove vegetation during the nesting season, we requested that our REC be on site to check trees for active nests before removing vegetation.
- We had a couple of instances where brush mowing was needed where the highway was very close to a stream. We utilized the BMPs of 1) limiting mowing to within 8 feet of the pavement and 2) mowing level with the roadway where the highway was closer than 8 feet from the stream.
- Ditch shaping/cleaning (Activity 120) - For this activity, our REC emphasized BMPs related to erosion control, since ditch work typically results in exposed soil that is subject to erosion. Specific BMPs recommended for these activities included the installation of check dams and inlet protection to contain sediment. The REC also stressed that none of the material removed from the ditches was to be side-cast, but must be hauled offsite to a suitable upland location.
- Our REC also recommended (per the Blue Book) that ditch cleaning be done during the dry season. At one location, our maintenance crew needed to clean vegetation and sediment from a ditch that has year-round flow, so an additional BMP we used was to clean the ditch from "upstream" to "downstream" so that vegetation remaining in the ditch below the work area would help filter sediment as ditch cleaning was done. The REC also recommended the installation of check dams in the ditch if needed.
- Culvert Repair (Activity 123) – We had one culvert replacement on a small intermittent drainage. The work was done during the instream work period and the stream was dry at the time, so fish salvage and work area isolation were not necessary. The REC checked the buffered site list for cultural sites and none were found in the area.
- Sign Installation and Fence Replacement (Activity 138) - The only BMP really required for this activity was to check the sign locations for cultural sites using the buffered site list. Because one of the fence locations was near an SMA for listed plants, the REC provided recommendations for accessing the site to avoid ground disturbance where the plants are located.
- Stockpile Site Expansion (Activity 081) – One existing stockpile site was expanded to increase the usable area for Maintenance. BMPs necessary for this work included checking the site for cultural resources, streams and wetlands and listed plants. We were able to avoid all resources identified on the property. Tree clearing to expand the usable area was done outside the bird nesting season.
- Mitigation Activities: District 8 requested assistance from Region 3 environmental staff following the Alameda Fire. Region Environmental staff assisted with prioritization of erosion control locations and recommended erosion control BMPs along I-5 and OR 99 following the Alameda Fire in September 2020.
- Significant maintenance or environmental enhancement efforts: The Alameda Fire, which burned along I-5 and OR 99 between Ashland and Medford, resulted in large areas of exposed soil within ODOT right of way after ground cover was burned. ODOT Maintenance staff and District Ops were involved in efforts to install erosion control BMPs at several locations, primarily along I-5, to prevent sediment from washing into drainage ditches, streams and inlets. BMPs used in this effort included the installation of inlet protection, check dams, straw wattles and straw mulch.
- District 8 also did a project to control invasive weeds that were encroaching into a riparian restoration area that was completed several years ago on OR 238 near Jacksonville. The project involved trimming over grown vegetation and limbing trees to

improve sight distance and aesthetics. At the same time, non-native blackberries were removed and we followed that up with herbicide spot-spraying of blackberries as they resprouted. This treatment will hopefully help us keep invasive weeds out of our riparian restoration area and will also keep blackberries from encroaching close to the highway.

#### Willamette Basin (Upper, Middle, Lower Willamette, Scappoose, Sandy)

##### ***ODOT District 3***

- Used check dams and bio bags Activities 120/121.
- Activity 133- Hazard trees felled in wet land area. Trees were left to not disturb wet land. We also left some snags up for bird habitat.
- The crew used Bio-bags throughout the section with our ditching program. Bio-bags are quick and easy to deploy. They also do a great job in the ditches we clean until ground cover returns.
- As a crew we have discussed the importance of trying to get ahead of the paving projects that come through the area so we don't have to make cross cuts through new pavement when a culvert fails.
- We needed full containment in 2 different locations added to scaffolding to capture concrete slurry from saw cutting while over water. The crews were able to form a curtain out of a heavy plastic and contain the slurry in a trough and vacuum the material out.
- We used the Blue Book for removing Beaver Dams, removing danger trees, and a lot of ditching, removing the cinders and bank erosion.
- We had to ask to extend the in water work period in order to complete the last pile repairs of the season. This work was under an overflow bridge with no water present.
- Migratory Bird Act (March 1-October 1) overlapped emergency work from the Beachie Creek Fire that started in early September interfering implementation of routine BMPs.
- A tanker spill occurred on 22E mp 63 2-16-20. NWFF responded; ODOT worked with DEQ/EPA to resolve.

##### ***ODOT District 4***

#### Central Basin (Mid-Columbia, Hood, Deschutes, Klamath, Goose and Summer Lakes)

##### ***ODOT District 2C/2B***

- Used bio bags rather than silt fence when ditching Act. 120 or trying to prevent erosion control. The bio bags blend in better and are less visible.
- Due to continued effects of the Eagle Creek Fire, we have had numerous wash outs, landslides, plugged culverts, and debris flows this last year. In conjunction with the environmental coordinator, we reviewed BMP's and installed waddles or Bio bags as recommended. We also coordinated with Bridge and the GEO/ HYDRO unit to address larger hazards, Activity 180/181.
- Due to the scale and severity of the Ainsworth and Tumalt Creek landslides, some routine BMPs were not feasible.
- Mitigation activities: The storage of slide material at Coopey Quarry. Due to the design of the high wall visibility barrier, mucky debris was able to be hauled there without it flowing into protected areas. Also, allowing willows to grow to catch sediment and control erosion and cutting and planting willows at others.

- Corridor level drainage inventory/mapping: we continually monitor and do monthly flights to access any issues in the aftermath of the Eagle Creek Fire. We monitor continued landslide activity at exit 41, Tumalt, Ainsworth, and Mosquito Debris Flow.
- Added rip-rap to fire damaged areas to avoid soil disruption and tracking of native soils onto the highway in multiple locations along Highway 224 from MP 32 to 48.
- We wait and do our ditching in the late part of summer when the ground is the driest to avoid mudding up the water.
- We continued with the hazard tree removal in the aftermath of the Eagle Creek Fire. We cleared thousands of yards of slide material from the roadways and ditches allowing runoff to not cause new washouts or erosion. This is an ongoing process projected to be needed many years into the future.
- Culvert inlet cleaning, Dam removal Activity 626: Coordinate with the REC for removal procedures to manage stream flow. Activity 169 Bridge cleaning: Bridge washing is done in the winter months when water is actively flowing. Water is pushed to the ends of the bridge to sheet off in vegetated areas. Activity 162 Bridge Repair: Coordinate with the REC for in water work periods, permit needs and historic significance.
- We had to ask to extend the in water work period in order to complete the last pile repairs of the season. This work was under an overflow bridge with no water present.

#### ***ODOT District 10***

Eastern Basin (John Day, Umatilla, Grande Ronde, Snake, Malheur, Owyhee)

#### ***ODOT District 12***

#### ***ODOT District 13***

#### ***ODOT District 14***

- We had two projects this year both are activity 112 and blue book activity 4.3 erosion repair. We reshaped the ditch, and put riprap back into the ditch to stabilize it. We installed erosion control devices or booms to catch the sediment, so it will not erode away again. This was done at mile post 1.9 to mile post 2 and mile post 52 to mile post 53 on Rome hill. So far the blue book BMP's in both places are working just as we planned and no more erosion is taking place.
- We followed the Blue book activity 112 section 4.3 under minimization measures, avoidance measures, and BMPs. Called our REC for clearances and the project went smoothly. Everything we followed from the blue book worked and I have no recommendations to improve the blue book.
- On two projects we observed discoloration of the water traveling down the ditch. This came from disturbing the ground and riprapping the ditch. The erosion control measures that we put into place clean up the water traveling down the ditch. The erosion control devices or booms trapped the water and let the sediment settle out and cleaned up the water. We did not have to take any action because the things we did took care of themselves. The status of the projects are that both are doing great just like they are supposed to work.
- Significant maintenance or environmental enhancement efforts: at MP 2 and 52. We put out booms to keep the soil from eroding away.
- We transferred a piece of property to the Tribe that had sensitive artifacts on it.

#### ***REC (REC) Reporting***



## ODOT Region 1 – East

### ODOT Region 2

- Following MBTA guidelines for avoidance of the nesting season first, and checking for nests if vegetation removal was conducted in the bird breeding season. Ditching BMPs from Blue Book and Maintenance ESC Guide.

### ODOT Region 3

- The ODOT-ODFW Programmatic Culvert Repair Agreement was utilized at four failing culvert locations in District 7 in 2020. At four locations, the invert (bottom) of each failing corrugated metal pipe (CMP) or concrete box culvert was lined with concrete in order to prolong its life. Prior to the Programmatic Agreement, these repairs would not have been possible without “triggering” the need for a complete culvert replacement at each location. However, due to the implementation of this agreement, ODOT was able to show a necessary fish passage improvement at each of these locations by installing grouted in “fish blocks” or baffles inside each culvert. In addition, a roughened channel was installed on the downstream side of one culvert in order to eliminate a previous drop at the outlet. This invert paving with fish passage improvements (which dramatically improved passage and saved ODOT millions of dollars) was done at the following locations:
  - I-5: M.P. 96.82 (Canyon Creek)
  - I-5: M.P. 119.88 (Unnamed Tributary of the South Umpqua River)
  - I-5: M.P. 167.17 (Pass Creek)
  - Powers Hwy: M.P. 8.7 (Unnamed Tributary of the South Fork Coquille River)
- District 7 obtained all necessary Environmental and Cultural Resources Emergency clearances for the catastrophic 130,000 acre Archie Creek Fire along the North Umpqua Highway (OR138E) in September 2020. Once the fire was extinguished, District 7 also designed and implemented erosion control in the ditches along the entire stretch highway in order to protect nearby streams to the extent feasible. District 7 also coordinated daily with personnel with the Bureau of Land Management and the U.S. Forest Service to ensure public safety and resource protection to the extent possible.
- District 7 replaced a culvert on a fish-bearing stream (Third Creek) located on Cape Arago Highway at M.P. 5.3. This was done as a quasi-emergency, designed to meet fish passage requirements, and implemented under a shortened timeline.
- The District 8 Maintenance crews coordinated with the Region 3 Environmental staff on a number of maintenance actions in 2020 and these actions fell primarily into one of the following categories:
  - Vegetation management (Activity 132) - we had several sites where maintenance performed hazard tree removal, brush mowing, etc. Maintenance did a really good job of scheduling this work to occur during the non-nesting season so we avoided take of birds protected by the Migratory Bird Treaty Act. When we did need to remove vegetation during the nesting season, we did our due diligence by checking trees for active nests before removing vegetation.
  - We had a couple of instances where brush mowing was needed where the highway was very close to a stream. We utilized the BMPs of 1) limiting mowing to within 8 feet of the pavement and 2) mowing level with the roadway where the highway was closer than 8 feet from the stream.
  - Ditch shaping/cleaning (Activity 120) - For this activity, we emphasized BMPs related to erosion control, since ditch work typically results in exposed soil that is subject to

erosion. Specific BMPs recommended for these activities included the installation of check dams and inlet protection to contain sediment. We also stressed that none of the material removed from the ditches was to be sidecast, but must be hauled offsite to a suitable upland location.

- We also recommended (per the Blue Book) that ditch cleaning be done during the dry season. At one location, Maintenance needed to clean vegetation and sediment from a ditch that has year-round flow, so an additional BMP we used was to clean the ditch from “upstream” to “downstream” so that vegetation remaining in the ditch below the work area would help filter sediment as ditch cleaning was done. We also recommended the installation of check dams in the ditch if needed.
- Culvert Repair (Activity 123) – We had one culvert replacement on a small intermittent drainage. The work was done during the instream work period and the stream was dry at the time, so fish salvage and work area isolation were not necessary. We checked the buffered site list for cultural sites and none were found in the area.
- Sign Installation and Fence Replacement (Activity 138) - The only BMP really required for this activity was to check the sign locations for cultural sites using the buffered site list. Because one of the fence locations was near an SMA for listed plants, we provided recommendations for accessing the site to avoid ground disturbance where the plants are located.
- Stockpile Site Expansion (Activity 081) – One existing stockpile site was expanded to increase the usable area for Maintenance. BMPs necessary for this work included checking the site for cultural resources, streams and wetlands and listed plants. We were able to avoid all resources identified on the property. Tree clearing to expand the usable area was done outside the bird nesting season.

#### ODOT Region 4

#### ODOT Region 5

- OR82 & I-84 culverts now have enhanced fish passage.

## Appendix D

### EMS Sustainability Report

## MAINTENANCE YARD ENVIRONMENTAL MANAGEMENT

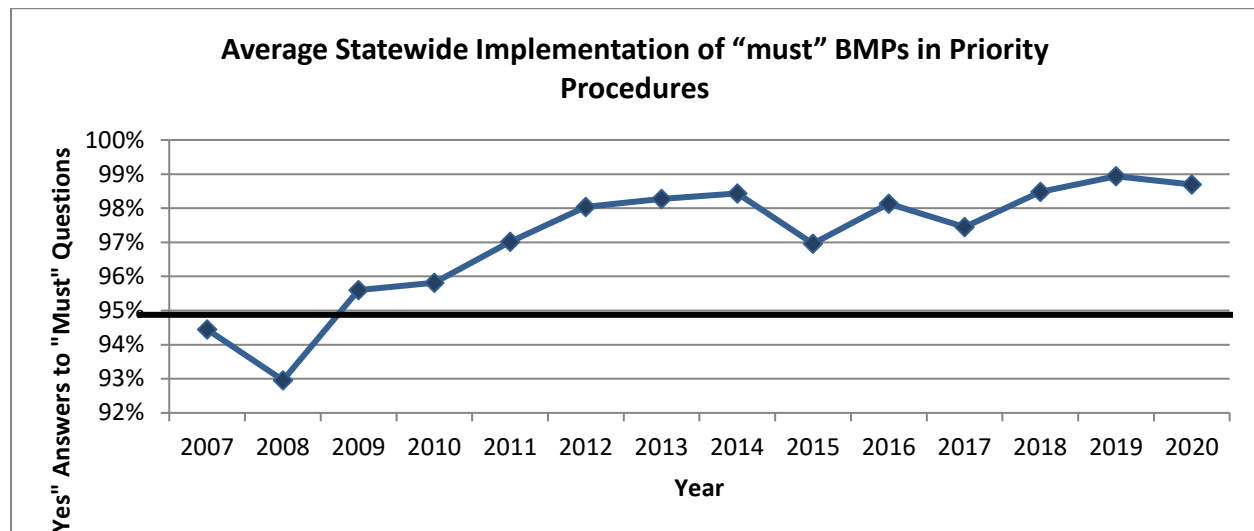
### Short-Run Goal

1. Maintain a 95 percent statewide average implementation (or greater) of the “must” BMPs in the EMS priority procedures.

### Performance Measure:

1. Percentage measure of maintenance yards following the “must” BMPs in the priority procedures of EMS Program.

Average overall implementation in 2020 was 98.7%.



ODOT's Maintenance Yard Environmental Management System (EMS) represents the cornerstone of Maintenance's commitment to the ODOT Sustainability Plan. Developed in 2004 and initiated in 2005, the EMS Policy and Procedures Manual (Manual) provides straight forward best management practices (BMPs) for managing materials used in the maintenance and operation of the highway system.

ODOT Maintenance employees strive to make the EMS program part of standard operating procedures.

Three levels of audits are used to evaluate the EMS Program: Monthly Field Audits, Regional Audits, and Statewide Reviews.

- Monthly Field Audits are monthly inspections of each maintenance yard conducted by local staff. Hardcopies of Monthly Audits are kept onsite and reviewed during Regional Audits.
- Regional Audits are triennial inspections of each maintenance yard conducted by the District Manager (or ADM), a yard representative, and a technical expert (either Regional HazMat or Maintenance and Operations Branch staff).
- Statewide Reviews of the Program are conducted by a diverse technical team that meets biannually to evaluate systemic issues, changes in regulations, and concerns from crews.

The EMS Manual contains 21 material specific procedures. Each procedure includes BMPs for storage, handling, and disposal. The EMS Manual also contains BMPs for drainage and water quality. BMPs throughout the Manual that are required by law or ODOT policy are identified by the word “must.”

Seven procedures have historically been selected as indicators of EMS program implementation: drainage and water quality; aerosol cans; fuel; lighting; oil; pesticide; and winter maintenance chemicals. These priority procedures were selected because of the type of wastes generated, the degree of regulation, continued confusion implementing the BMPs, and potential to impact natural resources.

Priority procedures are evaluated at each Maintenance yard during the Regional Audit. The remaining procedures are audited randomly throughout the state but distributed so each procedure is audited at least once a year in each Region

Responses to Regional Audit questions in the priority procedures regarding “must” practices are compiled to evaluate Maintenance’s progress implementing the EMS Program.

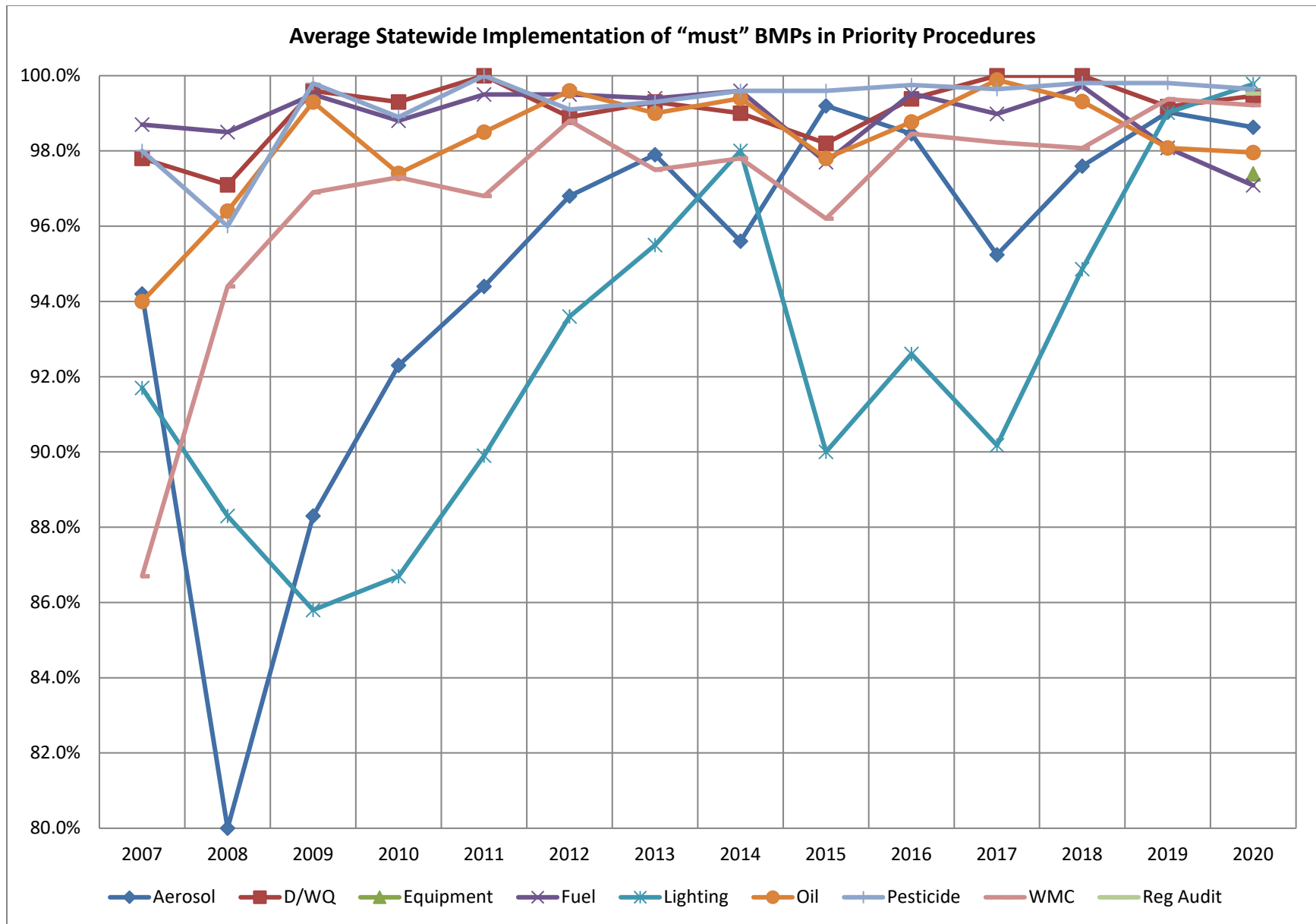
In 2020 an eighth procedure was added to the list of priority procedures. In addition, the Regional Audit form were revised to include (among other things) some questions previously on the priority procedure audit forms.

#### Summary of Regional Audits in 2020

- Planned for 2020: 35
- Scheduled by Districts: 32
- Forms Received: 32
- Procedures Audited: 22 of 22

<b>2020 Average Region Implementation of “must” BMPs</b>					
<i>Average Overall Implementation 98.8%</i>					
<b>Priority Procedures</b>	<b>Region 1</b>	<b>Region 2</b>	<b>Region 3</b>	<b>Region 4</b>	<b>Region 5</b>
Aerosol	91.7%	100.0%	100.0%	98.1%	100.0%
Drainage	100.0%	100.0%	100.0%	100.0%	97.3%
Equipment	100.0%	100.0%	92.6%	95.1%	99.3%
Fuel	100.0%	100.0%	95.7%	97.5%	100.0%
Lighting	92.9%	100.0%	95.2%	100.0%	97.3%
Oil	100.0%	100.0%	100.0%	98.9%	100.0%
Pesticide (including herbicide)	100.0%	100.0%	100.0%	100.0%	98.2%
Winter maintenance	100.0%	99.1%	99.2%	98.8%	99.0%
Regional audit	100.0%	100.0%	99.0%	99.5%	99.1%

<b>Average Statewide Implementation of “must” BMPs in Priority Procedures</b>													
	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Aerosol	80.0%	88.3%	92.3%	94.4%	96.8%	97.9%	95.6%	99.2%	98.5%	95.2%	97.6%	99.0%	98.6%
D/WQ	97.1%	99.6%	99.3%	100.0%	98.9%	99.3%	99.0%	98.2%	99.4%	100.0%	100.0%	99.2%	99.5%
Equipment													97.4%
Fuel	98.5%	99.5%	98.8%	99.5%	99.5%	99.4%	99.6%	97.7%	99.5%	99.0%	99.7%	98.1%	97.1%
Lighting	88.3%	85.8%	86.7%	89.9%	93.6%	95.5%	98.0%	90.0%	92.6%	90.2%	94.9%	99.0%	99.8%
Oil	96.4%	99.3%	97.4%	98.5%	99.6%	99.0%	99.4%	97.8%	98.8%	99.9%	99.3%	98.1%	98.0%
Pesticide	96.0%	99.8%	98.9%	100.0%	99.1%	99.3%	99.6%	99.6%	99.8%	99.6%	99.8%	99.8%	99.6%
WMC	94.4%	96.9%	97.3%	96.8%	98.8%	97.5%	97.8%	96.2%	98.5%	98.2%	98.1%	99.4%	99.2%
Reg Audit													99.5%
<b>Average</b>	<b>93.0%</b>	<b>95.6%</b>	<b>95.8%</b>	<b>97.0%</b>	<b>98.0%</b>	<b>98.3%</b>	<b>98.4%</b>	<b>97.0%</b>	<b>98.1%</b>	<b>97.5%</b>	<b>98.5%</b>	<b>98.9%</b>	<b>98.7%</b>



# HAZARDOUS MATERIALS AND CUSTODIAL CHEMICALS USED IN FACILITIES

## Short-Run Goals

1. Continue to track the amount of hazardous waste generated at each maintenance yard and truck shop, with the goal of maintaining conditionally exempt status under federal laws.

## Performance Measure:

1. Track the amount of hazardous waste generated at each maintenance yard and truck shop.

In 2020 all Maintenance yards were classified as Very Small Hazardous Waste Generators.

## Hazardous waste generated by Maintenance crews and equipment shops (combined statewide)

- 2020: 0.79 tons
- 2019: 1.13 tons

Very Small Hazardous Waste Generators is the lowest category of hazardous waste generator. Generator status is determined by the amount of hazardous waste created each month in a calendar year and the amount of hazardous waste that is stored onsite.

Information on hazardous waste generation is tracked by the crews and compiled biannually by the Maintenance and Operation Branch. Hazardous waste generation is tracked at 90 maintenance facilities.

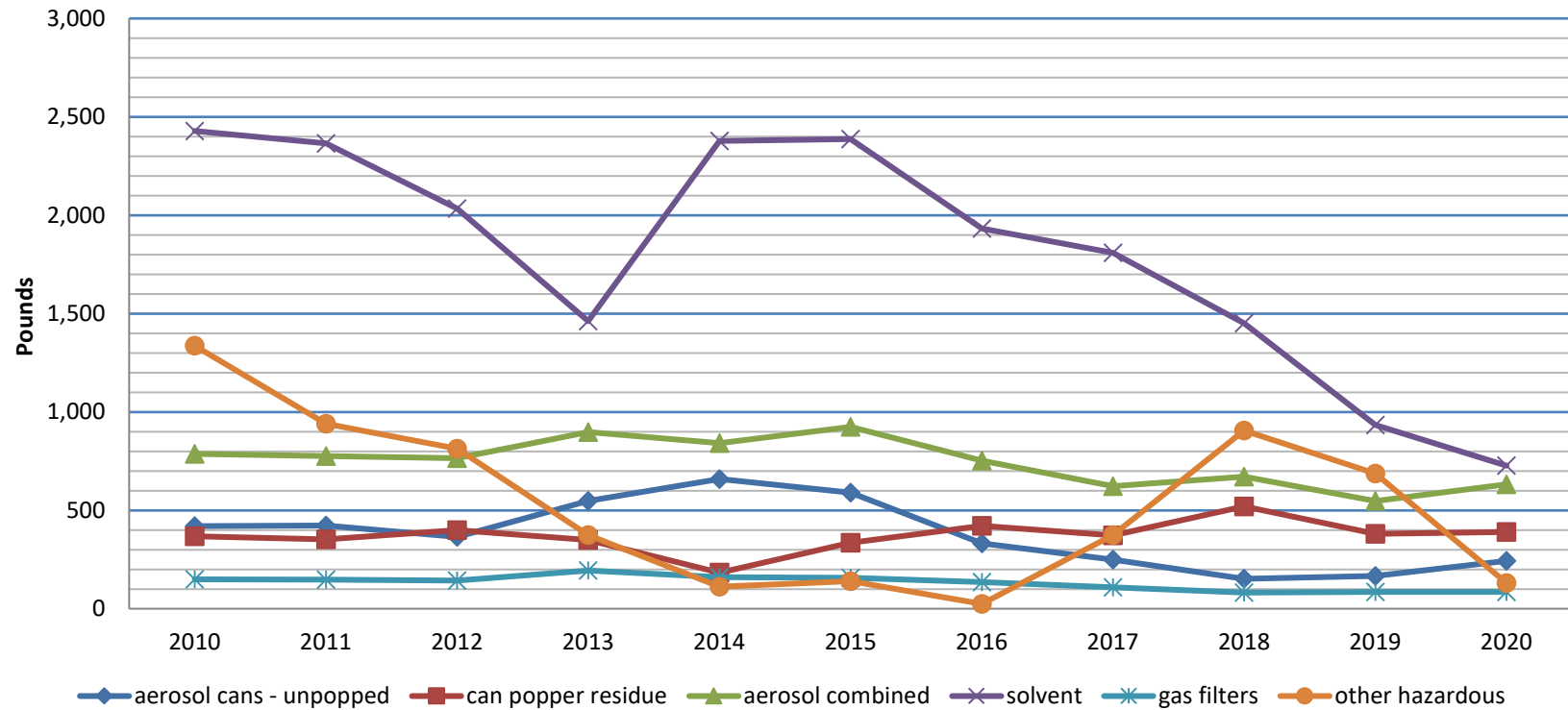
Hazardous waste generation by Maintenance and Fleet through routine activities is minimal. Aerosol cans, solvents, and unleaded fuel filters are the most common hazardous wastes. The 'other hazardous' category includes wastes that are generated infrequently such as can popper filters and episodic events such as the disposal of unwanted/unusable materials.

In some cases hazardous waste generation is influenced by issues outside the control of Maintenance. For example, heavy winter weather may increase the need for equipment maintenance increasing solvent usage and filter changes. Hazardous waste may also be created by spills, cleanup activities, and structure maintenance. Hazardous waste generation may appear to increase as Maintenance and Fleet employees become increasingly proficient at tracking and reporting.

## Waste Generation by District: January - December 2020

		Hazardous Waste (pounds)					
		aerosol cans	can popper residue	solvent	unleaded fuel filters	other hazardous	TOTAL
R1	2B	40	26	0	6	96	169
	2C	30	38	439	14	0	521
R2	1	4	16	0	0	4	24
	3	27	17	288	0	0	332
	4	3	14	0	0	0	17
	5	24	34	0	0	3	60
R3	7	12	2	0	3	9	26
	8	0	63	0	36	0	99
R4	9	10	14	0	18	0	42
	10	11	42	0	6	0	51
	11	50	34	0	3	19	106
R5	12	7	29	0	0	0	36
	13	12	21	0	0	0	33
	14	22	38	0	0	0	59
TOTAL		250	389	727	86	131	1,582
(tons)		0.12	0.19	0.36	0.04	0.07	0.79

## Hazardous Waste Generation - Statewide by Year



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
aerosol cans - unpopped	420	423	365	547	659	589	332	249	152	166	250
can popper residue	367	353	399	350	183	335	421	373	520	381	389
aerosol combined	787	777	764	897	842	924	752	622	672	547	639
solvent	2,428	2,366	2,033	1,461	2,377	2,387	1,933	1,809	1,452	934	727
gas filters	149	148	143	194	160	158	135	109	82	85	86
other hazardous	1,336	939	813	374	111	140	24	375	905	688	131
<i>pounds</i>	<b>4,701</b>	<b>4,229</b>	<b>3,753</b>	<b>2,926</b>	<b>3,491</b>	<b>3,609</b>	<b>2,845</b>	<b>2,914</b>	<b>3,110</b>	<b>2,254</b>	<b>1,575</b>
<i>tons</i>	2.35	2.11	1.88	1.46	1.75	1.80	1.42	1.46	1.56	1.13	0.79



## Appendix E

### 2020 Maintenance District Map

OREGON DEPARTMENT OF TRANSPORTATION  
MAINTENANCE DISTRICT MAP  
SEPTEMBER 2020

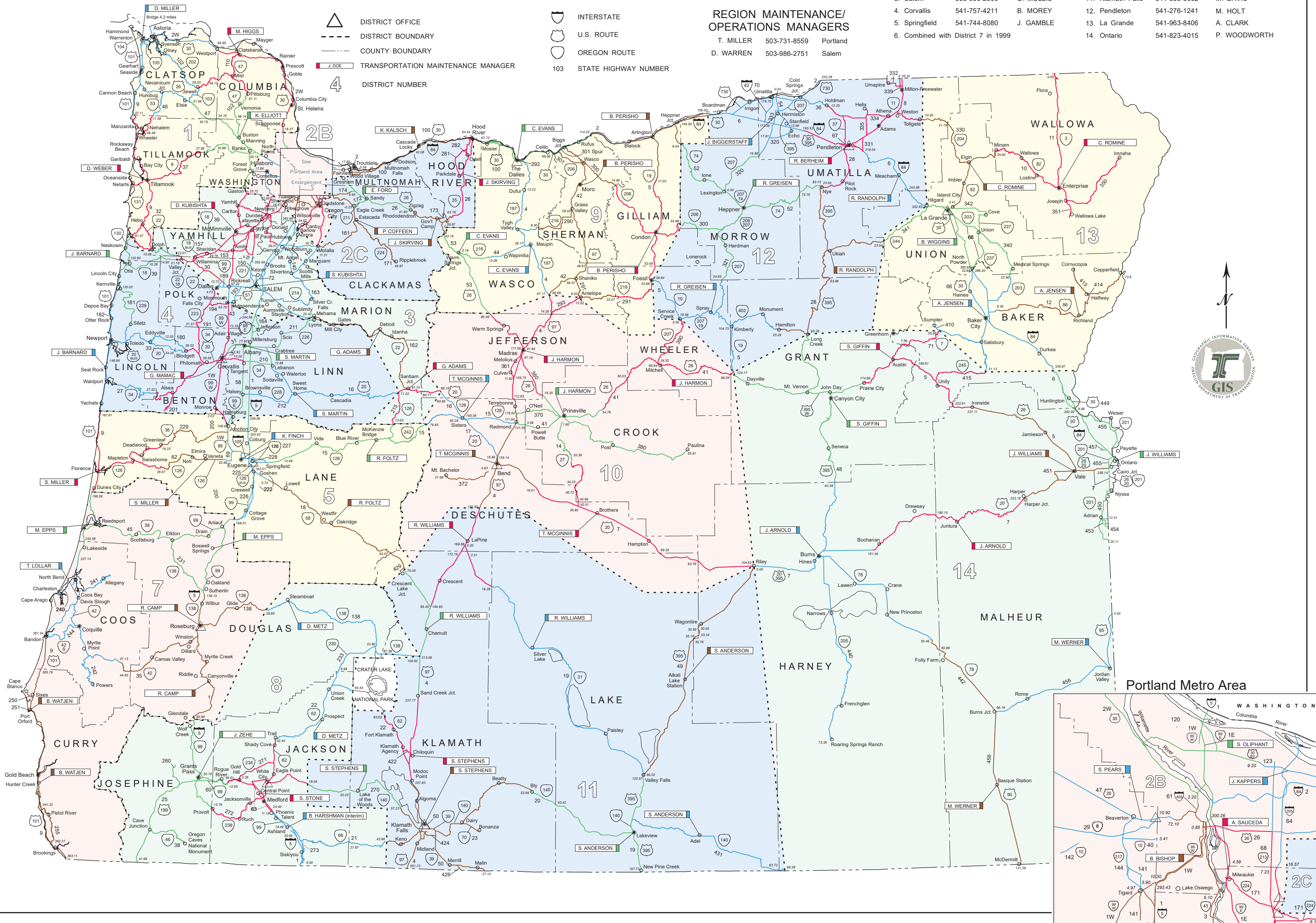
DISTRICT MANAGERS

1. Astoria	503-325-7222	M. BUFFINGTON	7. Roseburg	541-957-3586	D. NEAVOLL
2A. Combined with Districts 1 and 2B in 2011			8. White City	541-774-6355	J. MARMON
2B. Clackamas	971-673-6200	C. HAMILTON	9. The Dalles	541-296-2215	P. CIMMIYOTTI
2C. Troutdale	503-665-4193	D. BACON	10. Bend	541-388-6192	J. McCARROLL
3. Salem	503-986-2900	C. MULLIS	11. Klamath Falls	541-883-5662	M. DAVIS
4. Corvallis	541-757-4211	B. MOREY	12. Pendleton	541-276-1241	M. HOLT
5. Springfield	541-744-8080	J. GAMBLE	13. La Grande	541-963-8406	A. CLARK
6. Combined with District 7 in 1999			14. Ontario	541-823-4015	P. WOODWORTH

REGION MAINTENANCE/  
OPERATIONS MANAGERS

T. MILLER 503-731-8559 Portland  
D. WARREN 503-986-2751 Salem

- △ DISTRICT OFFICE  
--- DISTRICT BOUNDARY  
--- COUNTY BOUNDARY  
--- TRANSPORTATION MAINTENANCE MANAGER  
4 DISTRICT NUMBER
- INTERSTATE  
U.S. ROUTE  
OREGON ROUTE  
103 STATE HIGHWAY NUMBER



Portland Metro Area

