

Municipal Separate Stormwater System (MS4) Stormwater Management Program Document



Prepared for the Oregon Department of Environmental Quality

Submitted by the Oregon Department of Transportation

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ABOUT THIS DOCUMENT

The Stormwater Management Program Document (“SMPD”) was drafted as a requirement of ODOT’s MS4 permit issued on April 1, 2020. The SMPD outlines how ODOT meets the requirements of the MS4 permit through project development, construction, and maintenance.

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SCHEDULE A – AUTHORIZED DISCHARGES, LIMITATIONS, AND STORMWATER MANAGEMENT PROGRAM

1. Authorized Discharges

ODOT's MS4 permit authorizes stormwater discharge to surface waters of the state from ODOT's MS4 system. The permit also conditionally authorizes discharges which are categorized as allowable non-stormwater discharges listed in Schedule A.1.d.

a. Requirement to Reduce the Discharge of Pollutants

Pursuant to 40 CFR §122.34(a), ODOT is required to develop, implement, and enforce a Stormwater Management Program (SMP) designed to reduce pollutants from the MS4 to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirement of the Clean Water Act. This document fulfills that requirement.

b. Limitations of Coverage

The permit does not authorize:

- i. Stormwater discharges associated with construction activities. Those discharges are regulated under 1200-CA permits issued by DEQ.
- ii. Stormwater discharges to underground injection control (UIC) systems. Those discharges are permitted under ODOT's WPCF Permit # 103167.

c. Allowable Non-Stormwater Discharges

The permit prohibits the discharge of non-stormwater from the MS4, except where such discharges satisfy one of the following conditions:

- i. The non-stormwater discharge is regulated under a separate NPDES permit.
- ii. The non-stormwater discharge originates from emergency firefighting activities.
- iii. The non-stormwater discharge is categorized as an authorized or allowable non-stormwater discharge listed in below:
 - (A) Uncontaminated water line flushing.
 - (B) Landscape irrigation. For ODOT owned or operated areas, landscape irrigation is only considered allowable if pesticides and fertilizers are applied in accordance with manufacturer's instructions and/or EPA labels.
 - (C) Diverted stream flows.
 - (D) Uncontaminated groundwater infiltration (as defined at 40 CFR § 35.2005(20)) to separate storm sewers.
 - (E) Rising groundwaters.
 - (F) Uncontaminated pumped ground water.
 - (G) Potable water sources (including potable groundwater monitoring wells and draining and flushing of municipal potable water storage reservoirs).
 - (H) Irrigation water.
 - (I) Springs.

- (J) Lawn watering.
- (K) Flows from riparian habitats and wetlands.
- (L) Fire hydrant flushing.
- (M) Street, bridge, culvert and pavement washwaters (provided that chemicals, soaps, detergents, steam or heated water are not used).
- (N) Routine external building wash-down (provided that chemicals, soaps, detergents, steam or heated water are not used).
- (O) Water associated with dye testing activity.
- (P) Discharges of treated water from investigation, removal and remedial actions selected or approved by DEQ pursuant to Oregon Revised Statute (ORS) Chapter 465.

2. ODOT's Responsibilities

a. Coordinate With Other Public Entities

- i. 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.

b. 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.

- i. 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.
- ii. 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.
 - 1. MS4 Legal Authority Requirement: 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.

How ODOT will Address the Above Requirement:

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.

2. MS4 Legal Authority Requirement: Prohibit through ordinance, order or similar means, illicit discharges to the municipal separate storm sewer.

How ODOT will Address the Above Requirement:

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.

3. MS4 Legal Authority Requirement: 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.

How ODOT will Address the Above Requirement:

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.

4. MS4 Legal Authority Requirement: 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.

How ODOT will Address the Above Requirement:

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 to under which ODOT and other public entities may coordinate stormwater management strategies and infrastructure.

5. MS4 Legal Authority Requirement: 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.

How ODOT will Address the Above Requirement:

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).

- iii. 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 consistently with Oregon Drainage Law.
- iv. 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..."

c. Stormwater Management Program Document

ODOT maintains a written Stormwater Management Program Document (called "SMPD" herein) which describes how the agency complies with the required control measures in the permit. The Program details the schedule for implementation of all control measure components that are or will be developed during the term of the permit. ODOT updates the Program annually and provide updates on its implementation as part of the MS4 Annual Report submitted to DEQ.

d. Stormwater Management Program Information and Metrics

ODOT gathers, tracks, and documents progress in implementing the SMP as identified in Schedule A.3.a-h and Schedule D.

3. Stormwater Management Program Control Measures

ODOT continues to implement and refine all existing SMP control measures, and, after the effective date of the permit, may alter the methods by which it implements SMP control measures as needed to meet the requirements and goals of the program. New SMP control measures will be implemented as described in the implementation tables below.

a. 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.

i. Implementation Dates

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

ii. 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.

iii. 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.

iv. Target Audiences and Topics

The efforts described in A.3.a.iii. above will focus on the following target audiences and topics.

(A) Target Audience:

1. The general public,
2. Contractors and/or ODOT employees responsible for inspecting construction project activities; and,
3. Other ODOT employees, as appropriate.

(B) Target Topics are listed in the permit (A.3.a.iv.B.). ODOT will cover the target topics as appropriate in various training venues.

1. Illicit discharge identification and reporting procedures;
2. Proper storage of hazardous materials at work and at home;
3. Integrated vegetation management;
4. Winter maintenance best management practices;
5. Environmental Management System (EMS) compliance;
6. Research opportunities;
7. Low-impact development/green infrastructure stormwater treatment options;
8. Erosion and sediment control;

9. Routine Road Maintenance Water Quality and Habitat Guide (“Blue Book”);
 and,

10. Any other stormwater issues of significance identified by ODOT.

v. Tracking and Assessment

ODOT will provide an assessment of the agency’s public education and outreach program in each MS4 Annual Report and may refine engagement strategies to ensure the program goals are being met. ODOT will also provide the number of activities performed each year.

Table 3.a: Implementation Schedule

Program Deliverables	Implementation Date
Update ODOT’s Stormwater Website	June 1, 2021
Develop internal stormwater training module	June 1, 2021
Develop a Social Media Strategy to Disseminate Stormwater Information	June 1, 2022
Pursue opportunities to partner with local jurisdictions, as available	Ongoing

b. Public Involvement and Participation

i. Implementation Dates

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 3.b. If a component is deemed unfeasible, justification will be provided in the subsequent MS4 Annual Report and ODOT will consult with DEQ, as necessary.

ii. 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. (See Appendix.)

iii. Public Involvement Opportunities

Public involvement opportunities are often provided or engaged at the local level and may not be applicable statewide; however, ODOT does provide the following statewide opportunities:

- (A) Public input through the project delivery process;
- (B) Coordinate with local watershed groups; and,
- (C) Adopt-A-Highway Program.

iv. Tracking and Assessment

ODOT will provide an assessment of the agency’s Public Involvement Program in each MS4 Annual Report and may refine engagement strategies to ensure the program goals are being met.

Table 3.b: Implementation Schedule

Program Deliverables	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, 2021

c. Illicit Discharge Detection and Elimination (IDDE)

ODOT will continue to implement the agency's current IDDE program while exploring opportunities to improve reporting pathways.

i. Implementation Date

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

ii. Regulatory Mechanisms

ODOT's general authority to maintain the state highway system is detailed in Schedule A.2.b.

(A) Existing Authority to Control Illicit Discharges

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.

iii. Spill Response and Abandoned Waste

- (A) Emergency spill response procedures, objectives, and policies are detailed in existing ODOT manuals such as the EMS, HazMat Program Procedures Guidebook, and the Highway Emergency Response Guide. (See Appendix.)
- (B) Spill response requirements are also identified in other state and federal permits currently held by ODOT, including WCPF Permit #UIC-103167.
- (C) 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 highway 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.
- (D) 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.

iv. ODOT's Illicit Discharge Detection and Elimination Program (IDDE)

(A) Illicit Discharge Complaints or Reports

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 3.c.

(B) Response to Complaints or Reports

Illicit discharges to the ODOT's MS4 are identified through Road Patrols, Water Quality Facility Inspections, and private or public complaints. Most illicit discharges are corrected upon discovery and will not be included in the MS4 Annual Report. As described in Schedule 3.A.c.ii, ODOT does not have legal authority over activities outside of ODOT right of way, so correcting illicit discharges can be complex and may involve complicated jurisdictional authority issues. ODOT involves other agencies as appropriate to correct illicit discharges, often referring unauthorized discharges that enter ODOT's system to DEQ. Illicit discharges that are not immediately corrected are tracked and reported in the MS4 Annual Report.

(C) Notification of Other Authorities

If the illicit discharge originates outside the ODOT's right of way, ODOT will notify the jurisdictional authority within five working days of becoming aware of the illicit discharge. ODOT will continue to work collaboratively with other MS4 permittees to identify opportunities to improve communication between agencies in regard to IDDE, as necessary.

ODOT will determine the risk to human health and the environment and respond accordingly. ODOT will notify DEQ of all illicit discharges as soon as practical.

(D) Complaint Tracking

ODOT will continue to report any illicit discharges into and from the MS4 that are not immediately corrected. The tracking system will document the following:

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

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

v. 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, and may be 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).

vi. 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 that are outside the scope of the Program and will not be reported in the MS4 Annual Report. ODOT maintenance crews receive training about IDDE and how to respond to a complaint through internal stormwater training, including Blue Book and EMS annual training classes.

vii. Tracking and Assessment

ODOT will track implementation of the IDDE program requirements. In each corresponding MS4 Annual Report, an assessment of progress towards implementation of the program will be provided.

Table 3.c: Implementation Schedule

Program Deliverables	Implementation Date
Develop internal reporting and tracking procedures for IDDE	April 1, 2022
Develop a stormwater training module	April 1, 2021
Update stormwater website to include information about identifying and reporting potential illicit discharges	April 1, 2021

d. Construction Site Runoff Control

- i. 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 Training and Certification training program is detailed on ODOT’s website (see Appendix.)
Implementation Dates

ODOT will continue to implement the components described in Schedule A.3.d.ii-v. New components will be implemented according to the dates identified in Table 3.d. If a component is not implemented because it is deemed unfeasible, justification will be provided in the subsequent MS4 Annual Report and ODOT will consult with DEQ, as necessary.

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

- (A) Clean Water Act (CWA) Section 404 permits and CWA Section 401 water quality certifications (WQCs):

This permit and certification regulates in water work and regulates sediment entering Waters of the State.

- (B) Conditioned biological opinions, including ODOT’s Federal Aid Highway Programmatic biological opinions (FAHP):

- (C) The Oregon Department of State Land’s (DSL’s) Oregon Removal/Fill Permit, and other

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.

iii. Erosion and Sediment Control Plans, Review, and Inspection for ODOT's Construction Program

ODOT has obtained five regional 1200-CA permit registrations pertaining 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.

NPDES 1200-CA Compliance Strategy

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 Geo-Environmental's Erosion and Sediment Guidance Materials. (See Appendix.) 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, See Appendix) 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:

- (A) Managing and ensuring proper implementation of the ESCP;
- (B) Accompanying Engineer during field review of the ESCP prior to construction activities;
- (C) Monitoring rainfall;
- (D) Inspecting the Erosion & Sediment Control (ESC) facilities for effective functioning:
 - 1. Inspections occur weekly during active construction
 - 2. Inspections occur within 24 hours of rainfall of 1/2" or greater
 - 3. Inspections occur every two weeks during inactive periods.
- (E) Ensuring ESC facilities are regularly maintained;
- (F) Mobilizing crews to enact immediate repairs of ESC facilities that are not effectively functioning or are not installed according to ODOT Standard Details;

- (G) Recording actions taken to clean up sediment & regularly updating monitoring forms; and,
- (H) 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:

- (A) Limit disturbed areas;
- (B) Install perimeter controls;
- (C) Develop wet season plan for ESCP that could include work suspension;
- (D) Stabilize disturbed areas;
- (E) Prevent erosion (using vegetation, mulch, matting, compost or other soil cover)
- (F) Control runoff (using check dams, slope drains, interceptor swales or dikes or other runoff control measures);
- (G) Control sedimentation (using construction entrances, inlet protection, sediment barriers, sediment traps or other sediment control measures);
- (H) Monitor receiving waters; and,
- (I) 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. Oregon Standard Specifications Section 00140 – Scope of Work (See Appendix) 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.

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 (see Appendix for GE 12-01(A)). 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 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.

iv. Construction Runoff Control for Maintenance Activities

Maintenance activities are steered by the Blue Book (See Appendix), which references the Erosion and Sediment Control Guide for Routine Maintenance Activities. Activities outside of the scope of these documents may be subject the requirements outlined in Schedule A.3.d.iii.

v. 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 has an existing training program for Agency inspectors, providing three classes in 2018 with 90 participants. Participants must pass a test to receive certification. ODOT also provides training for contractor ESCMs. In 2018, four classes were provided with 103 participants. Participants must pass a test to receive ESCM certification. Certification is required to perform ESCP reviews and inspections. The Environmental Construction Inspector Certification is valid for five years, ensuring training will occur at least once during the permit term.

ODOT also provides annual Blue Book training to staff.

vi. Tracking and Assessment

ODOT will track implementation of the Construction Stormwater Runoff program requirements. In each corresponding MS4 Annual Report, an assessment of progress towards implementation of the program will be provided.

Table 3d: Implementation Schedule

Program Deliverables	Implementation Date
Assess Training Program Effectiveness	April 1, 2022

e. 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.

i. Implementation Deadline

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

ii. Other Regulatory Mechanisms

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

(A) 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.

(B) Endangered Species Act and Magnuson-Stevens Fishery Conservation and 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:

1. FAHP BO (NMFS);
2. FAHP BO (USFWS);

3. Programmatic BO to Standard Local Operating Procedures for Stormwater, Transportation or Utilities; and,
4. Individual project BOs.

(C) 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.

(D) 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.

(E) 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.

iii. 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:

- (A) The Blue Book: The Blue Book requires promoting sheet flow for stormwater wherever appropriate through such actions as corrective blading or grading.
- (B) 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.).
- (C) Hydraulics Design 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.

- (D) 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.

iv. 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:

- (A) 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.
- (B) 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.

v. 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 3.e.1: Post-Construction Site Runoff Plan Review

Document (prepared by)	Purpose	Audience	Review Mechanism
Hydraulics report (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
Post-construction stormwater management plan (SWMP) (water resources specialist / biologist)	Documents how project design meets 401 stormwater criteria	DEQ ¹	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.
FAHP stormwater report (water resources specialist / biologist)	Documents compliance with FAHP BOs	NMFS	Peer reviewed, then submitted to NMFS liaison; take reported annually
Project development and construction plan sheets (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

i. 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 2019, ODOT maintains more than 1,100 facilities statewide. Stormwater facilities include:

- (A) 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;
- (B) Stormwater storage facilities such as ponds, tanks, and vaults;
- (C) Low impact development (LID) best management practices (BMPs); and,
- (D) Underground Injection Control (UIC) systems.

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. (See Appendix.)

¹ Most SWMPs—for projects approved under nationwide permits—are reviewed by the water resources program leader 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 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:

- (A) The facility type;
- (B) How the facility operates;
- (C) The inspection schedule;
- (D) A list of required maintenance work;
- (E) Waste material handling and contacts;
- (F) Appendix A: A facility operational plan, profile and details; and,
- (G) 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.

ii. 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.

- (A) Water resources specialists and biologists:
 - 1. Water resources specialist manual;
 - 2. Biology manual;
 - 3. FAHP User's guide;
 - 4. Direct organizational communication of urgent issues;
 - 5. Quarterly discipline meetings;
 - 6. Discipline leads providing formal training; and,
 - 7. Sharing information internally about additional training opportunities provided by outside providers.

(B) Hydraulic engineers:

1. Hydraulics Manual;
2. ODOT Policies;
3. Standard Construction Specifications;
4. Standard Drawings;
5. Standard Details;
6. Qualified Products List;
7. O&M manual templates;
8. FAHP User's guide;
9. Direct organizational communication of urgent issues;
10. Monthly senior engineer discipline meetings;
11. Quarterly statewide discipline meetings;
12. Discipline leads providing formal training; and,
13. Sharing information internally about additional training opportunities provided by outside providers.

(C) Maintenance:

1. 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.
2. 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.

iii. Tracking and Assessment

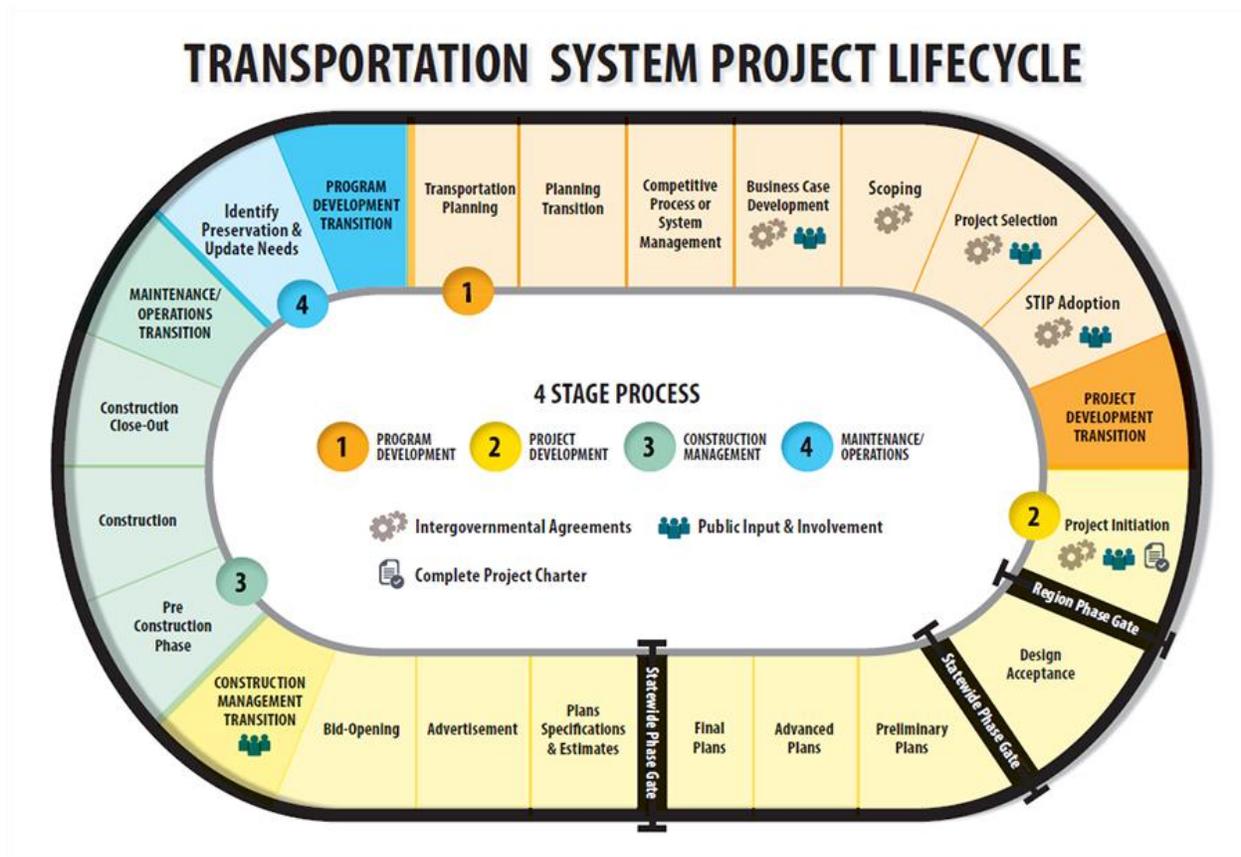
ODOT will track implementation of the Post-Construction Stormwater Runoff program requirements. In each corresponding MS4 Annual Report, an assessment of progress towards implementation of the program will be provided.

Table 3.e.2: Implementation Schedule

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

f. The Project Delivery Process has four stages.

The Project Delivery Guide (See Appendix) explains the Project Delivery Process in detail. Stormwater management is addressed in every phase of the process. (See Appendix.)



g. 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.

i. Implementation Date

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

ii. Operation and Maintenance for ODOT Maintenance Facilities

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.

iii. Other Pollution Prevention and Good Housekeeping Programs

ODOT will also continue to implement the following programs:

- (A) Integrated Vegetation Management Program;
- (B) Litter control, including Adopt-a-Highway;
- (C) Material and waste disposal, and applicable reuse agreements with DEQ;
- (D) Any necessary stormwater infrastructure maintenance to ensure proper function; and
- (E) SPCC plan development and implementation as necessary.

iv. 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.

v. Tracking and Assessment

ODOT will track implementation of the Pollution Prevention and Good Housekeeping program requirements. In each corresponding MS4 Annual Report, an assessment of progress towards implementation of the program will be provided.

Table 3.f: Implementation Schedule

Program Deliverables	Implementation Date
Submit EMS Annual Report as part of the MS4 Annual Report	Annually

h. 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.

i. Implementation Date

ODOT will continue to implement the components described in Schedule A.3.g.ii-v. New components will be implementation according to the dates identified in Table 3.g. If a

component is deemed unfeasible, justification will be provided in the subsequent MS4 Annual Report and ODOT will consult with DEQ, as necessary.

ii. 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.

iii. Winter Maintenance Strategy

ODOT's current Winter Maintenance Strategy includes phasing in the use of solid salt in key 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.

iv. 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.

v. Training and Education

ODOT provides Winter Maintenance Training through two primary venues:

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

vi. Tracking and Assessment

ODOT will track implementation of the Winter Maintenance Program requirements. In each corresponding MS4 Annual Report, an assessment of progress towards implementation of the program will be provided. ODOT also produces a Winter Maintenance Annual Report which will be included in the MS4 Annual Report.

Table 3.g: Implementation Schedule

Program Deliverables	Implementation Date
Provide copies of SPR 812	Upon Completion
Develop and implement a calibration manual for material application equipment	June 30, 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

i. 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.² A list of prioritized projects may be completed, if practicable, during this permit cycle.

i. Implementation Date

ODOT will develop a statewide Stormwater Retrofit Strategy described in Schedule A.3.h.ii-iv. It will be implemented according to the dates identified in Table 3.h. If a component is deemed unfeasible, justification will be provided in the subsequent MS4 Annual Report and ODOT will consult with DEQ, as necessary.

ii. Stormwater Retrofit Strategy Components and Objectives

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

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

The number of 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.

iii. 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 Some retrofit concepts may require review to determine consistency with the aforementioned Constitutional expenditure limits.

iv. Program Document Development and Update

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. Once developed, this document will be reviewed annually and will be included in the MS4 Annual Report.

v. Tracking and Assessment

ODOT will provide updates on the development and implementation of the Stormwater Retrofit Strategy in each corresponding MS4 Annual Report.

Table 3.h. Implementation Schedule

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

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 April 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
Last annual report under previous permit	January 1, 2019-December 31, 2019	April 1, 2020
1st Year Annual Report	January 1, 2020 - December 31, 2020	April 1, 2021
2nd Year Annual Report	January 1, 2021 - December 31, 2021	April 1, 2022
3rd Year Annual Report	January 1, 2022 - December 31, 2022	April 1, 2023
4th Year Annual Report	January 1, 2023 - December 31, 2023	April 1, 2024
5th Year Annual Report	January 1, 2024 - December 31, 2024	April 1, 2025

3. Monitoring Requirements

ODOT will not be required to monitor under this MS4 permit; in lieu of monitoring, see requirements under Schedule D. ODOT will be updating the TMDL Implementation Plan during this permit cycle and any data collected under this updated plan shall be submitted to DEQ upon their request.

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

5. Recordkeeping

a. 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.

i. 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:

- (A) All available outfall inventories that are within Phase 1 and II Communities completed since 1999;
- (B) All available highway stormwater runoff characterization data collected by ODOT or consultants contracted by ODOT since 1999;
- (C) All available monitoring data collected by ODOT or consultants contracted by ODOT since 1999; and,
- (D) Other Relevant Stormwater Data collected by ODOT or consultants contracted by ODOT since 1999

1. Other sources of data may include:

- a. Water Quality Facility Program;
- b. Winter Maintenance Program;
- c. Integrated Vegetation Management Program;
- d. EMS Program; and,
- e. Data received from other MS4 permittees, DOTs, and state and federal agencies.

ii. 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.

iii. 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:

- (A) Research projects;
- (B) Literature reviews;

- (C) Partnerships with other permittees, DOTs, and/or other state and federal agencies;
- (D) Computer modeling;
- (E) Physical data collection; and,
- (F) GIS analysis.

iv. Tracking and Assessment

ODOT will track will provide an assessment of progress towards implementation of the program components in each corresponding MS4 Annual Report.

Table D.1: Implementation Schedule

Program Deliverables	Implementation Date
Identify Known Existing, Applicable Data Sets	June 1, 2021
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

ODOT Environmental Management System (EMS) Policy and Procedures Manual

https://www.oregon.gov/ODOT/Maintenance/Documents/ems_manual.pdf

ODOT HazMat Program Procedures Guidebook

https://www.oregon.gov/ODOT/GeoEnvironmental/Docs_GeologyGeotech/HazMatProgProcedures.pdf

ODOT Routine Road Maintenance

https://www.oregon.gov/ODOT/Maintenance/Documents/blue_book.pdf

Geo-Environmental Erosion and Sediment Guidance Materials

<https://www.oregon.gov/ODOT/GeoEnvironmental/Pages/Erosion.aspx>

Highway Emergency Response Guide?

<https://www.fhwa.dot.gov/reports/erm/er.pdf>

ODOT's Geo-Environmental Drafting Program

<https://www.oregon.gov/ODOT/GeoEnvironmental/Pages/Drafting.aspx>

Construction Training and Certification

<https://www.oregon.gov/ODOT/Construction/Pages/Training.aspx>

ODOT'S Standard Specifications

https://www.oregon.gov/ODOT/Business/Documents/2018_STANDARD_SPECIFICATIONS.pdf

ODOT's Boilerplate Special Provisions

[https://www.oregon.gov/ODOT/Business/Pages/Boilerplate-SP-2018.aspx?wp1660=l:100,so:\[\[6235,1\]\]&wp6616=l:100&wp106=l:100](https://www.oregon.gov/ODOT/Business/Pages/Boilerplate-SP-2018.aspx?wp1660=l:100,so:[[6235,1]]&wp6616=l:100&wp106=l:100)

Project Delivery Process

<https://www.oregon.gov/ODOT/ProjectDel/Pages/Project-Delivery-Guide.aspx>