Instructions for Completing the Stormwater O&M Manual

Delete this page prior to printing.

Stormwater management facilities for treatment and detention of stormwater runoff must be maintained in perpetuity. The Operation and Maintenance Manual describes how to maintain the facilities and the Declaration of Covenants contained within the Manual describes legal responsibilities of the property owner. The Stormwater Facilities Operations and Maintenance Manual is to be submitted as separate document from the Stormwater Calculation Report.

Detailed Instructions:

1. Fill in the required information throughout the Operation and Maintenance Manual.
2. Insert the appropriate Inspection and Maintenance Worksheets from the Section F template. Only include the worksheets that apply to this project.
3. Have the property owner sign the Declaration of Covenants in the presence of a notary.
4. Bring the Declaration of Covenants to the approving authority (either Medford or RVSS) to have them sign the document.
    a. If receiving approval through RVSS, signed documents may be scanned and emailed to RVSS.
5. The property owner, or their agent, must take the fully signed and notarized Declaration of Covenants to the Jackson County recorder office and have the document recorded on the deed of the property. Only the two page Declaration of Covenants must be recorded. The address, parking information and hours of operation of the Recorders office is available here: https://jacksoncountyor.org/clerk/Contact/Recording.
6. Provide the completed SW O&M Manual to the approving authority.

Business Name: _____

Map + TL: _____

Business Address: _____

Stormwater Facilities
Operation & Maintenance Manual

Date O&M Document Prepared:

_____

Prepared by:

Name: _____

Address:_____

Phone: _____

TABLE OF CONTENTS

Stormwater Facilities Operation and Maintenance Manual
Section Descriptions

1. Contact Information, which is to be updated, and an updated copy of the form provided to the approving authority, whenever information changes, Section A.

2. A copy of the recorded "Declaration of Covenants for the Operation and Maintenance of Stormwater Facilities", Section B.

3. If the project is located in the City of Medford, a Subdivision O & M Agreement, is required for any portion of the subdivision that drains into a privately maintained stormwater facility. The Agreement must include copies of all recorded easements associated with the stormwater facility including a map of the tax lot(s) showing the location of the easement(s), Section C.

4. A description and diagram of the stormwater components on site and the proposed route for inspection and maintenance, Section D.

5. Approved stormwater facility construction plans, including the plan view and details, in Section E.

6. The Inspection and Maintenance Worksheets for the specific type of facility(ies) shall be attached as part of the O&M Plan, Section F.

7. For proprietary stormwater systems, include the manufacturer's maintenance documents, Section G.

8. The DEQ Fact Sheet for responding to a spill of hazardous materials, Section H.

Section A

Contact Information

Contact Information

Print or type the following information:

Project Name _____ Building Permit # _____

Site Information: Address _____

City/State/Zip _____ Map and Tax Lot(s) _____

Legal Owner Information

Name(s) _____

Address (mailing) _____City/State/Zip _____

Phone _____ Email_____

Responsible Party for Maintenance

Property Owner☐ Property Management Company☐ Homeowner's Association☐ Tenant☐

Other☐ _____

Contact Information for Responsible Party

Contact Name/Position _____

Contact Organization _____

Phone _____ Email_____

EMERGENCY CONTACT

Contact Name/Position _____

Phone _____ Email_____

Stormwater Facility Type
List each stormwater treatment and detention facility associated with this project, if a proprietary facility provide the manufacturer and model.

_____

_____

_____

Responsible Party Designation Form

This form to be used if designating a third party as responsible for operation and maintenance.

The undersigned, Property Owner(s) _____,
owners of property with a site address of: _____,
Jackson County, Oregon, do hereby declare that as of _____, 20___,
_____will be the responsible party for operating and maintaining the stormwater management facility described in the Declaration of Covenants for the Operation and Maintenance of Stormwater Facilities in accordance with all measures prescribed in the Covenants. They will remain the responsible party until the property owner signs a new Responsible Party Designation Form with a new entity. Nothing herein in any way alleviates or diminishes Property Owner's primary and ultimate responsibility and liability to comply with RVSS ordinances and regulations and to perform as required per the Declaration of Covenants executed the _____ day of _____, 20____.

_____	_____
Owner Printed Name	Responsible Party Printed Name
_____	_____
Owner Signature	Responsible Party Signature

Section B

Declaration of Covenants

Declaration of Covenants for the Operation & Maintenance of Stormwater Facilities For

_____

Declaration of covenants affecting the real property(ies) described in Exhibit "A" (legal description) or by Instrument Number: _____, also known as: _____ *(Map & Tax Lot)*, with a site address of: _____ _____ , (hereinafter referred to as the "property"), for the express purpose of causing the owners of said property to be subject to performing the operation and maintenance of the stormwater facility located on the property:

NOW THEREFORE, the undersigned, _____, owners of said property, do hereby declare that they, their heirs, successors and assigns, will manage, operate, and maintain the stormwater facility including any catch basins, piping, and treatment and detention facilities described as

_____

_____

(hereinafter collectively referred to as "Facility"), as prescribed below:

1. This Covenant shall remain in full force and effect unless canceled or modified with the written consent of RVSS and the property owner/owners.
2. The property owner/owners shall keep a copy of the jurisdiction approved Stormwater Facilities Operation and Maintenance Manual, dated _____, available on the premises, hereafter referred to as O&M Manual. These shall be made available to RVSS staff upon request.
3. The property owner/owners agree to contact RVSS with updated names, addresses, and phone numbers for owner's, and responsible parties should the information on the Contact Form, Section A, change.
4. The property owner/owners shall inspect and maintain the approved Facility, and easements associated with the Facility, in accordance with the approved Inspection and Maintenance Worksheets within the O&M Manual to ensure it is functioning properly.
5. Modifications of physical features within the Facility shall not be made by property owner/owners or their without receiving prior written authorization from RVSS.

6. The property owner/owners shall keep records of Facility system inspections and Maintenance for five years from the date of each inspection. Records shall note inspection dates, any conditions requiring maintenance actions, and maintenance conducted. Records shall be made available to RVSS staff upon request at no cost to RVSS.
7. RVSS staff shall have the right to enter upon owner's property, using the maintenance access routes specified in the O&M Manual, for the purpose of inspecting the Facility subject to regulation under Chapter 4.05.120 of RVSS' code, as often as may be necessary to determine compliance.
8. If RVSS determines that the Facility or any part thereof is not functioning properly, the owner will either take corrective actions, or will submit a plan of action that is approved within 14 calendar days, unless other arrangements are made with RVSS.
9. If Owner fails or refuses to timely and/or faithfully perform any obligation required of Owner as set forth herein, RVSS may make or perform such maintenance, repair, or other work or other task and charge the actual costs thereof to Owner. Such expenditures by RVSS shall be reimbursed by Owner on demand together with interest at the rate of 12% per annum from the date of expenditure by RVSS.
10. If all, or any part, of the Facility is located within a Public Utility Easement (PUE.), the property owner/owners shall bear all responsibility and cost to remove and replace any portion or affected portion of the Facility located within any PUE located on the subject property at such time when the benefitting agency deems it necessary for access, maintenance and/or other activities as permitted by the PUE.
11. In the event suit, action, or other proceeding is instituted to enforce or interpret this Agreement, the prevailing party shall be entitled to recover from the non-prevailing party the prevailing party's costs, disbursements and attorney fees incurred through trial and upon any appeal therefrom.

The above covenants shall run with the land, be enforceable by the Rogue Valley Sewer Services, and shall be binding upon the property owner/owners, their heirs, successors, and assigns.

IN WITNESS WHEREOF, the property owner(s), signed this _____ day of _____, 20___.

_____
(Owner Printed Name)

_____
(Owner Signature)

STATE OF OREGON)
) ss:
County of Jackson)

_____, 20___

Personally appeared, the above-named _____, and acknowledged the foregoing instrument to be a voluntary act. Before me:

_____
Notary Public for Oregon

My Commission expires: _____

THE FOREGOING IS HEREBY ACCEPTED BY ROGUE VALLEY SEWER SERVICES,
138 W Vilas
Central Point, OR 97502

_____
By Carl Tappert, General Manager

STATE OF OREGON)
) ss:
County of Jackson) Date: _____

Personally appeared before me the above named Carl Tappert, General Manager, Rogue Valley Sewer Services and acknowledged the foregoing instrument to be his voluntary act and deed.

_____
Notary Public for Oregon
My Commission Expires: _____

Exhibit “A”

Legal Description of Property

Section C

Subdivision O&M Agreement

(If Required)

Section D

Stormwater Facility Access Diagram / Route

Section E

Civil Plans for Stormwater Facility Construction

Section F

STORMWATER MAINTENANCE CHECKLISTS AND FORMS

Inspection and Maintenance Action Checklists

Stormwater Facility Inspection/Maintenance Field Form

STORMWATER FACILITY INSPECTION AND MAINTENANCE ACTION CHECKLISTS

Stormwater Facility Design Functions: (Boxes to be checked by designer only.)

The Stormwater Facilities at this site are designed to perform specific functions indicated below, and must be maintained to perform those functions in perpetuity. Changes to the Facility that would alter its designed function require consent from the local approving jurisdiction. Check all that apply:

☐ Infiltration (All Retention BMP's): Runoff is captured and held only leaving the facility through infiltration into the ground, evaporation or absorption by vegetation.

Does the infiltration facility design require 90% vegetation coverage? ☐ yes ☐ no

- If Yes, the Inspection and Maintenance Checklist for Vegetated Facilities must be included.
- If No, the Inspection and Maintenance Checklist for Vegetated Facilities is not required.

☐ Flow-through Treatment (Water Quality Swale BMP and Dispersion BMPs): Runoff is captured in the facility and flows through vegetation and/or soils before flowing downstream.

Does the facility incorporate a Water Quality Swale or Vegetated Filter Strip? ☐ yes ☐ no

- If Yes, the Inspection and Maintenance Checklist for Vegetated Facilities must be included.
- If No, the Inspection and Maintenance Checklist for Vegetated Facilities is not required.

☐ Filtration Treatment (Soil Filtration BMP and Vegetated Roof): Runoff is captured in the facility and is filtered through a soil substrate before being captured in and discharged through an underdrain.

☐ Settlement for Treatment (Water Quality Settling Basin BMP): Runoff is captured and held for a specified amount of time to allow solids to settle before being slowly released downstream.

☐ Proprietary Treatment BMP: Runoff is captured in a proprietary treatment device and is treated as specified by the manufacturer. The manufacturer's maintenance documents must be included.

☐ Peak Flow Control (Detention BMP): Peak flow from a 10 year event is captured, held, and released at a rate no greater than the pre-developed peak flow rate.

Inspection and Maintenance:

The checklists indicate recommended conditions to look for and actions to take should those conditions exist. They can assist with planning, scheduling, staffing, and budgeting for operation and maintenance of the stormwater facility.

Inspections: At least one inspection per year is required, some items require inspection during a storm event, refer to the Inspection Checklist. Document the date of inspection on the Inspection Checklist and list any maintenance that is needed.

Maintenance Records: Maintenance records must be kept on all stormwater facilities. Trash removal is required to be done, but not required to be documented. All other items listed as required maintenance items must be documented. An example Maintenance Record is provided in this packet. On the Maintenance Record, list the issue to be addressed and the date action was taken and describe the action taken. The individual who inspects and approves the completed work should initial the 'Work approved by' box. Invoices and work orders for supplies and hiring contractors to complete work should be kept on file. The property owner/owners shall keep records of facility system inspections and maintenance for five years from the date of each inspection. Records shall be made available to jurisdictional authority upon request, at no cost.

Manufactured Treatment Structures: These structures will have maintenance requirements from the manufacturer that are included in this packet.

Pesticides: Pesticides (which includes herbicides, insecticides, fungicides), are prohibited within stormwater facilities due to the potential to contaminate downstream waters. Utilize integrated pest management to assess and address pest issues.

Fertilizers: Avoid the use of fertilizers in stormwater facilities. Instead, mulch plants with shredded wood chips or coarse compost. Mulch must be dye, pesticide and weed free.

Pollution Prevention: Best Management Practices must be implemented on all sites to prevent stormwater contamination. Spills should be cleaned up following best management practices and should never be washed into a stormwater treatment facility. If a spill occurs into the stormwater facility, contact the approving jurisdiction immediately. Document time and date, weather conditions, what spilled, approximately how much, and any corrective action taken. If possible, block the inlet to the stormwater facility to prevent the material from flowing in. If the material reaches the stormwater facility, soils and vegetation may have to be replaced.

Inspection and Maintenance Action Checklist	Pervious Pavement

PROHIBITIONS

- No stockpiles of soil/mulch/debris may be staged on the pervious surface and grass/leaves/debris should not be blown onto the surface. Ensure landscape contractors understand that the surface is permeable. Inform them that they cannot stage or blow material onto the surface.
- Do not seal coat the pervious surface or overlay with an impervious surface. Repair raveling or settling per manufacturer specification. 50sf or less of damage may be patched with conventional asphalt, up to 10% of the entire pervious surface.
- Snow removal with salt is prohibited. Use salt-free deicers only. Do not apply deicers to concrete <1 year old. Always plow with the blade one inch above the surface.

Required Actions

Surface cleaning	• Vacuum or dry sweep at least twice a year • Or, pressure wash at a right angle to the pavement

Conditions to Check for	Action	Required/ Suggested	Inspection Date	Maintenance Needed (if none, state none needed)
Erosion from landscape areas onto pervious paving	Implement temporary erosion prevention and sediment control and a permanent fix for the erosion issue(s).	**Required**		
Reduced infiltration	Must inspect during a storm event. If storms are not infiltrating, contact the jurisdiction.	**Required**		
Weed and moss growth over 10% of area or more	Mechanically remove during the dry season. Avoid mossicides and herbicides.	**Required**		
Trash and Leaves	Pick up trash, blow or sweep leaves. Remove and dispose.	**Required**		
Signage describing Pervious Pavement in place	If a sign was specified on the plans, ensure sign is visible and legible.	**Required**		
Aggregate loss, potholes, cracks	Repair per manufacturer specification, 50sf or less of damage may be patched with conventional asphalt, up to 10% of the entire pervious surface.	**Suggested**		
Settling of pavers or loss of paver filling.	Reset pavers and replace missing fill material per original design.	**Suggested**		

*The Pervious Pavement Checklist applies and must be included for the following BMPs:

- Pervious Surface Retention BMP (pervious asphalt, pervious concrete, pervious pavers)

Inspection and Maintenance Action Checklist	Flexible Paving Systems and Pervious Gravel Surfaces			
PROHIBTIONS				
• Pesticide use in stormwater facilities is prohibited.				
• No Stockpiles may be located on the flexible paving system or pervious gravel. Ensure landscape contractors understand that the surface is permeable. Inform them that they cannot stage material on the surface or blow grass/leaves/etc. onto the surface.				
Conditions to Check For	**Action**	**Required/ Suggested**	**Inspection Date**	**Maintenance Needed (if none, state none needed)**
Erosion from landscape areas onto pervious paving	Implement temporary erosion prevention and sediment control and a permanent fix for the erosion issue(s).	**Required**		
Reduced infiltration	If storms are not infiltrating, contact the jurisdiction.	**Required**		
Trash and Leaves	Pick up trash, blow or sweep leaves. Remove and dispose.	**Required**		
Signage describing Pervious Pavement in place	If a sign was specified on the plans, ensure sign is visible and legible.	**Required**		
Aggregate loss	Replace with aggregate per original design.	**Suggested**		
If vegetation is required to function and coverage is poor, Inspect for bare soil, exposed rings, ruts poorly growing grass from too much shade, and thatch.	Reseed, verify irrigation system is functioning. Avoid aeration since this equipment will damage the flexible system.	**Suggested**		
Maintenance Specific to Pervious Gravel				
Reduced Infiltration	Remove the first few inches of rock and either wash in an area that does not drain to the stormwater system and replace, or replace with new washed rock matching the original aggregate specification.	**Suggested**		

*The Flexible Paving Systems and Pervious Gravel Surfaces Checklist applies and must be included for facilities that incorporate the following BMPs:

- **Pervious Surface Retention BMP (Flexible Paving Systems or Pervious Gravel Surfaces)**

Inspection and Maintenance Action Checklist		Vegetated Facilities*		
PROHIBITIONS				
• Pesticide use in stormwater facilities is prohibited.				
• Removal of vegetation to less than 90% surface cover is prohibited.				
Conditions to Check For	**Actions**	**Required/ Suggested**	**Inspection Date**	**Maintenance Needed (if none, state none needed)**
Vegetation covers < 90% of facility surface	Possible Ways to achieve 90% vegetation cover: • Determine if irrigation system is functioning properly and fix if needed. • Have a soil fertility test done to determine if nutrient addition is needed, if so add compost. • Add mulch around plantings. • Revegetate following approved landscape plan to achieve at least 90% coverage.	**Required**		
Sediment washing out of facility	If sediment accumulated in the facility bottom is washing out, excavate and remove. Assess side slopes and bottom for erosion, fill in any eroded areas with approved soil mix and cover with mulch or vegetation.	**Required**		
Channelization in Water Quality Swale. Flow has become channelized and does not spread across bottom width of swale.	• Recontour to design width and elevation. • Replant vegetation to cover the entire facility bottom. • Consider installing a flow spreader device. Contact the approving jurisdiction for advice on flow spreader installation.	**Required**		
Clogged or damaged inlets, outlets, pipes, check dams, perforated pipes or underdrains; if interfering with facility function	• Remove sediment and debris to maintain adequate conveyance. • Repair or replace damaged pipes, inlets, outlets to match approved design.	**Required**		
Energy dissipator(s) damaged/missing at inlets and outlets (where specified)**	If rock is washing out, evaluate need to replace with larger rock. If missing, replace rock with size and at depth specified.	**Required**		
Check Dams damaged (if installed)	Maintain design number, spacing and elevation, of check dams.	**Required**		

Inspection and Maintenance Action Checklist		Vegetated Facilities*		
Ponding for more than six days	In swales, check that outflow is not blocked by vegetation or debris. In infiltration facilities, remove the clogged soil then rake, till or amend the soil with the approved soil mix. Contact the approving jurisdiction to discuss soil replacement if this is insufficient.	**Required**		
Trash and debris.	Remove and dispose.	**Required**		
Odor, sludge, or color. Presence of any chemical pollutants.	Notify appropriate jurisdiction to investigate. Remove contaminant by appropriate methods and dispose of as directed by hazardous waste protocols.	**Required**		
Access to facility is restricted	• Public facilities must have unrestricted all weather access to all inlets, pipe openings, flow control structures • Private facilities must have unrestricted access that is traversable by maintenance vehicles during dry months.	**Required**		
Vegetation blocks sight lines, inlets, outlets.	• Prune vegetation that blocks sight lines, inlets, outlets. Do not string trim grasses, sedges or rushes. • Remove dead vegetation before it covers 10% of the surface area. • Facilities seeded with low-mow or no-mow seed mix, should be cut a maximum of three to four times a year to reduce fire risk. In infiltration facilities, utilize a weed whacker rather than a mower to reduce compaction of the facility soils. • Maintain vegetation at 6 inches or taller in swales.	**Suggested**		
Erosion within facility. Check inlets, slopes, energy dissipators and facility bottom.	Any erosion deeper than two inches should be addressed. Determine cause of erosion and eliminate. Refill eroded channels with approved soil media and replant. If possible, redirect flows temporarily and apply appropriate	**Suggested**		

Inspection and Maintenance Action Checklist				Vegetated Facilities*
	temporary erosion control best management practices.			

*The Vegetated Facilities Checklist applies and must be included for stormwater facilities that incorporate the following BMPs:

- **Ponded Retention BMP with Vegetation**: eg. rain gardens, stormwater planters and retention ponds designed with 90% vegetation coverage
- **Water Quality Swale BMP**
- **Dispersion BMP:** Vegetated Filter Strips only

****Energy Dissipators:** Typically located below an inlet to a stormwater facility and made of rip-rap, concrete, or a proprietary structure. They prevent scouring of the stormwater facility substrate.

Inspection and Maintenance Action Checklist		Unvegetated Surface Facilities*		
PROHIBITIONS				
• Pesticide use in stormwater facilities is prohibited.				
Conditions to Check For	**Action**	**Required/ Suggested**	**Inspection Date**	**Maintenance Needed (if none, state none needed)**
Sediment washing out of facility	If sediment accumulated in the facility bottom is washing out, excavate and remove. Assess side slopes and bottom for erosion, fill in any eroded areas with approved soil mix and cover with mulch or vegetation.	**Required**		
Clogged or damaged inlets, outlets, pipes, perforated pipes or underdrains; If interfering with facility function	Remove sediment and debris to maintain adequate conveyance. Repair or replace damaged pipes, inlets, and outlets to match approved design.	**Required**		
Energy dissipator(s) damaged/missing at inlets and outlets (where specified)**	If rock is washing out, evaluate need to replace with larger rock. If missing, replace rock with size and at depth specified.	**Required**		
Ponding for more than six days	In infiltration facilities, remove the clogged soil then rake, till or amend the soil with the approved soil mix. Contact the approving jurisdiction to discuss soil replacement if this is insufficient.	**Required**		
Trash and debris.	Remove and dispose.	**Required**		
Odor, sludge, or color. Presence of any chemical pollutants.	Notify appropriate jurisdiction to investigate. Remove contaminant by appropriate methods and dispose of as directed by hazardous waste protocols.	**Required**		
Liner (if installed) torn or punctured	Repair or replace as necessary per manufacturer specification.	**Required**		
Access to facility is restricted	• Public facilities must have unrestricted all weather access to all inlets, pipe openings, flow control structures • Private facilities must have unrestricted access that is traversable by maintenance vehicles during dry months.	**Required**		
Erosion within facility. Check inlets, slopes, energy dissipators and facility bottom.	Any erosion deeper than two inches should be addressed. Determine cause of erosion and eliminate. Refill eroded channels with approved soil media. If possible, redirect flows temporarily and apply	**Suggested**		

Inspection and Maintenance Action Checklist				Unvegetated Surface Facilities*
	appropriate temporary erosion control best management practices.			

*The Unvegetated Surface Facilities Checklist applies and must be included for facilities that incorporate the following BMPs:

- **Ponded Retention BMP** without Vegetation: eg. rain gardens, stormwater planters and retention ponds designed without 90% vegetation coverage.
- **Soil Filtration BMP**: eg. rain gardens and stormwater planters designed as filtration facilities with underdrains.

****Energy Dissipators:** Typically located below an inlet to a stormwater facility and made of rip-rap, concrete, or a proprietary structure. They prevent scouring of the stormwater facility substrate.

Inspection and Maintenance Action Checklist			Detention & Settling Basins*	
PROHIBITIONS				
• Pesticide use is prohibited in stormwater facilities.				
Conditions to Check For	**Action**	**Required/ Suggested**	**Inspection Date**	**Maintenance Needed (if none, state none needed)**
Clogged or damaged inlets, outlets, pipes, perforated pipes, underdrains or check dams; If interfering with facility function	Remove sediment and debris to maintain adequate conveyance. Repair or replace damaged pipes, inlets, and outlets to match approved design.	**Required**		
Sediment washing out of facility	If sediment accumulated in the facility bottom is washing out, excavate and remove the accumulated sediment. Assess side slopes and bottom for erosion, and stabilize to prevent erosion. If erosion persists, seek technical assistance.	**Required**		
Energy dissipator(s) damaged/missing at inlets and outlets (where specified)**	Replace rock of size and at depth specified. Evaluate need to replace with larger rock. Repair eroded areas as necessary. Determine cause of rock movement and replace with same size rock or larger as necessary.	**Required**		
Sediment accumulation exceeding 20 percent of the forebay depth or 4 inches, whichever is less.	Remove sediment.	**Required**		
Overflow berms or spillways exposed and either actively eroding or vulnerable to erosion.	Replace armoring or replant as directed in design plans and specifications.	**Required**		
Trash and debris.	Remove and dispose.	**Required**		
Trash rack or bar screen missing or more than 25% covered	Remove debris and dispose of waste. Repair or replace rack as necessary.	**Required**		
Odor, sludge, or unusual color. Presence of any chemical pollutants.	Notify appropriate jurisdiction to investigate. Remove contaminant by appropriate methods and dispose of as directed by hazardous waste protocols.	**Required**		
Access to facility is restricted	• Public facilities must have unrestricted all weather access to all inlets, pipe openings, flow control structures • Private facilities must have unrestricted access that is traversable by maintenance vehicles during dry months.	**Required**		

Inspection and Maintenance Action Checklist		Detention & Settling Basins*		
Vegetation blocks sight lines, inlets, outlets.	Prune vegetation that blocks sight lines, inlets, outlets. Do not string trim grasses, sedges or rushes.	**Suggested**		
Erosion within facility. Check inlets, slopes, energy dissipators and facility bottom.	Determine cause of erosion and eliminate and stabilize to prevent erosion. If possible, redirect flows temporarily and apply appropriate temporary erosion control best management practices.	**Suggested**		

*The Detention & Settling Basins Checklist applies and must be included for facilities that incorporate the following BMPs:

- Water Quality Settling Basin BMP
- Detention BMP (Flow Control)

****Energy Dissipators:** Typically located below an inlet to a stormwater facility and made of rip-rap, concrete, or a proprietary structure. They prevent scouring of the stormwater facility substrate.

Inspection and Maintenance Action Checklist				Disconnected Downspouts
PROHIBITIONS				
• Discharging runoff on another property is not allowed.				
• No impervious surfaces may be added within the dispersion area.				
• Directly connecting downspouts to the sanitary or stormwater system or directing runoff to flow into the stormwater system is prohibited.				
Conditions to Check For	**Action**	**Required/ Suggested**	**Inspection Date**	**Maintenance Needed (if none, state none needed)**
Damaged or missing pipes or downspout extension	Ensure extension ends a minimum of 10 ft from structure. Repair and replace as needed.	**Required**		
Clogged or blocked pipes, elbows or downspout extension	Clear pipes and elbows of debris to maintain at least adequate capacity. Clear any accumulated debris at downspout extension or splash block. Verify that dispersion area is not encroached upon by other structures.	**Required**		
Erosion at outlet	Check that splash blocks or energy dissipation is in place and functional. Repair eroded areas as necessary. Repair or replace splash blocks. If rock energy dissipation has moved, determine cause and replace with same size rock or larger as necessary.	**Required**		
Vegetation blocks downspout extension or visibility.	Prune vegetation that blocks downspout extension or visibility of traffic.	**Suggested**		

*The Disconnected Downspouts Checklist applies and must be included for facilities that incorporate the following BMPs:

- Dispersion BMP: Disconnected Downspouts

****Energy Dissipation:** Typically located below an inlet to a stormwater facility and made of rip-rap, concrete, or a proprietary structure. Prevents scouring of the stormwater facility substrate.

Inspection and Maintenance Action Checklist				Vegetated Filter Strips*
Prohibited Actions				
• Pesticide use within stormwater facilities.				
• Removal of vegetation to less than 90% surface cover.				
Conditions to Check For	**Action**	**Required/ Suggested**	**Inspection Date**	**Maintenance Needed (if none, state none needed)**
Channelization. Flow has become channelized and does not spread over entire facility.	• Check condition of flow spreader, repair or replace as needed to evenly disperse flow. • If needed, re-contour facility to design elevation and replant vegetation to evenly cover facility.	**Required**		
Vegetation covers < 90% of facility bottom	Possible Ways to achieve 90% vegetation cover: • Determine if irrigation system is functioning properly. • Have a soil fertility test done to determine if nutrient addition is needed, if so add compost. • Add mulch around plantings. • Revegetate following approved landscape plan to achieve at least 90% coverage.	**Required**		
Trash and debris.	Remove and dispose.	**Required**		
Access to facility is restricted	• Public facilities must have unrestricted all weather access to all inlets, pipe openings, flow control structures • Private facilities must have unrestricted access that is traversable by maintenance vehicles during dry months.	**Required**		
Access to facility is restricted	• Public facilities must have unrestricted all weather access to all inlets, pipe openings, flow control structures • Private facilities must have unrestricted access that is traversable by maintenance vehicles during dry months.	**Required**		
Erosion within facility.	• Any erosion deeper than two inches should be addressed. Determine cause of erosion and eliminate. Refill eroded channels with approved soil media and replant. If possible, redirect flows temporarily and apply appropriate temporary erosion control best management practices.	**Required**		

Inspection and Maintenance Action Checklist				Vegetated Filter Strips*
Vegetation blocks sight lines, inflow, outlets.	• Prune vegetation that blocks sight lines, inflow, outlets. Do not string trim grasses, sedges or rushes. • Remove dead vegetation before it covers 10% of the surface area. • Facilities seeded with low-mow or no-mow seed mix, should be cut as needed to reduce fire risk. Maintain vegetation at 6 inches or taller.	**Suggested**		

*The Vegetated Filter Strips Checklist applies and must be included for facilities that incorporate the following BMPs:

- Dispersion BMP: Vegetated Filter Strips

Inspection and Maintenance Action Checklist		Underground Structures*		
Conditions to Check For	**Action**	**Required/ Suggested**	**Inspection Date**	**Maintenance Needed (if none, state none needed)**
Sediment and debris exceeding 15% of the structure height or 6" in depth, whichever is less.	Sediment should be removed and disposed of properly at a landfill or approved facility. This may require contracting with a plumbing company that has a vacuum truck. For proprietary structures, follow the manufacturer's maintenance guidelines.	**Required**		
Plugged or blocked catch basins, pipes, underdrains, silt traps, inlets, perforated pipes, air vents.	Remove sediment and debris to maintain adequate conveyance at all times.	**Required**		
Cracks in joints between tank or pipe sections that leak soil into the facility.	Manually seal all cracks with appropriate grout material.	**Required**		
Underground facility structurally deficient or restricting flow.	Repair or replace structure to design.	**Required**		
Soakage trench surface clogged	• If water infiltrates through surface, remove and clean rock on the surface. Replace the geotextile fabric on the top, being careful not to damage the fabric on the sides. Place the cleaned rock back over the geotextile fabric. Dispose of sediment in trash destined for the landfill. • Sweeping regularly will reduce the likelihood of clogging. High traffic areas will clog faster than low traffic areas.	**Required**		
Missing an operable manhole cover.	Replace cover or repair and reinstall.	**Required**		
Cleanout shear gate damaged, rusted, leaking or missing. Gate cannot be adjusted by one person. Chain or rod missing or damaged	Repair or replace to meet design standards. Repair, lubricate, or replace gate as necessary. Repair or replace chain or rod as necessary.	**Required**		
Odor, sludge, or unusual color. Presence of any chemical pollutants.	Notify appropriate jurisdiction to investigate. Remove contaminant by appropriate methods and dispose of as directed by hazardous waste protocols.	**Required**		
Access to facility is restricted	• Public facilities must have unrestricted all weather access to all inlets, pipe openings, flow control structures	**Required**		

Inspection and Maintenance Action Checklist		Underground Structures*		
	• Private facilities must have unrestricted access that is traversable by maintenance vehicles during dry months.			

*The Underground Structures Checklist applies and must be included for facilities that incorporate the following BMPs:

- Underground Retention BMP: eg. Soakage trench
- Detention (Flow Control) BMP: eg. Detention pipes, vaults, chambers,

Inspection and Maintenance Action Checklist		Outlet Control Structures/Flow Restrictors*		
PROHIBITIONS				
• Cannot open valves on stormwater facility structures.				
Conditions to Check For	**Action**	**Required/ Suggested**	**Inspection Date**	**Maintenance Needed (if none, state none needed)**
Sediment, debris, or trash is blocking or sump is less than 50% from restrictor/orifice plate	Remove and dispose.	**Required**		
• Structural integrity. ○ Tee-type flow restrictor is not securely attached to manhole wall and outlet pipe. ○ Weir or baffle flow restrictor not securely attached to manhole. ○ Flow restrictor is not plumb within 10% ○ Connections to outlet pipe are leaking and show signs of rust ○ Holes in plates, baffles, elbows, etc.	• Determine best method for anchoring flow restrictor based on materials and severity of situation. Replumb and realign restrictor, securing as necessary. • Repair or replace as necessary to eliminate leakage. • Plug or patch holes if structural integrity is not affected. Replace part if possible, replace entire structure if severely failing.	**Required**		
Trash, sediment, or debris blocking overflow pipe.	Remove and dispose.	**Required**		

*The Outlet Control Structures/Flow Restrictors Checklist applies and must be included for any facility that incorporates the following:

- **Outlet Control Structure:** Located at the downstream end of a stormwater facility, it controls the rate at which stormwater can flow out through the use of a flow restrictor.
- **Flow Restrictor (Orifice, weir, undersized pipe, etc…):** A designed restriction specifically sized and placed to control stormwater outflow. A flow restrictor can come in the form of a hole (orifice) cut into a plate or pipe, a notch (weir), or an undersized pipe.

Inspection and Maintenance Action Checklist				Culverts/Pipes/Underdrains*
Conditions to Check For	**Action**	**Required/ Suggested**	**Inspection Date**	**Maintenance Needed (if none, state none needed)**
Trash, debris, or sediment restricting pipe flow.	Remove to maintain adequate conveyance at all times.	**Required**		
Damage to pipe such as rusting through wall of pipe, dents, bent or crushed ends that affect efficient flow.	Repair or replace pipe as necessary.	**Required**		
Cracking or buckling of headwall. Erosion or bypassing occurring at backside or around ends of headwall.	Determine extent of problem and monitor for changes. Repair or replace as necessary.	**Required**		
Missing rock or riprap within upstream or downstream apron areas or side slopes. Active erosion within area.	Repair eroded areas as necessary. Determine cause of rock movement and replace with similar size rock or larger as necessary.	**Required**		

*The Culverts/Pipes/Underdrains Checklist applies and must be included for any facility that incorporates underdrains, culverts, or pipes specifically for Retention, Treatment, or Detention of stormwater and does not apply to on-site conveyance pipes or catch basins.

Inspection and Maintenance Action Checklist				Vegetated Roofs
PROHIBITIONS				
• Pesticide use in stormwater facilities is prohibited.				
Conditions to Check For	**Action**	**Required/ Suggested**	**Inspection Date**	**Maintenance Needed (if none, state none needed)**
Damaged membrane	Repair or replace.	**Required**		
Clogged Drains	Remove sediment and debris.	**Required**		
Vegetation covers < 90% of roof surface	Possible Ways to achieve 90% vegetation cover: • Determine if irrigation system is functioning properly. • Have a soil fertility test done to determine if nutrient addition is needed, if so add compost. • Add mulch around plantings. • Revegetate following approved landscape plan to achieve at least 90% coverage. Remove and replace per approved landscape plan. Irrigate, if planting in the summer.	**Required**		
Erosion	Fill eroded area with approved soil, plant to prevent erosion.	**Required**		
Standing Water	Check for leaks in irrigation, clear drains, amend soils to restore infiltration.	**Required**		

STORMWATER FACILITY MAINTENANCE RECORD

Use this record to document inspections. Keep invoices and work orders for maintenance work on file and provide upon request of the approving agency.

Stormwater Facility Type:		
Facility Address:		
Business Name:		
Responsible Party for maintenance:		Position:
	Phone:	Email:
Organization:		

Issue	Actions Taken	Date Action Taken	Work approved by:

Issue	Actions Taken	Date Action Taken	Work approved by:

Section G

Proprietary Stormwater Components Operation and Maintenance Information (If Used)

Section H

Hazardous Spill Response Plan

Fact Sheet

What to Do When You've Had a Spill

Contact local emergency services

Call 911 for medical emergency and public safety assistance from the local fire, police, and medical services.

Report the spill immediately

Immediately report the spill or threatened spill to the Oregon Emergency Response System, 1-800- 452-0311, when the spill or threat of a spill includes:

- Any amount of oil to waters of the state.
- Oil spills on land more than 42 gallons.
- Hazardous materials and reportable quantities that are equal to the Code of Federal Regulations, 40 CFR Part 302.4.

U.S. Environmental Protection Agency Notification

Some oil or hazardous material spills will require a separate notification to the National Response Center, 1-800-424-8802. Visit EPA's Emergency Response website for information necessary to determine if you need to report to the federal system.

Other actions to take

- Move away or upwind from the spill if you detect an odor and are unsure if it is safe.
- Avoid contact with liquids or fumes.
- Keep non-emergency people out of the area.
- Control and contain the spill.
- Clean up what you can immediately.
- Remove cleanup materials to an approved facility (such as a solid or hazardous waste landfill or recycling facility.) Save your receipts for documentation.
- Continue with long-term cleanup measures.
- File a completed Spill Release Report Form with DEQ

Your role

You are responsible for the immediate cleanup of your spill, regardless of the quantity involved.
The responsibility lies with the person who spills the product, as well as the person owning or having authority over the oil or hazardous material. You may need to hire a qualified contractor or properly trained and equipped personnel to respond immediately to the spill. If you fail to clean up your spill, DEQ may clean it up

for you and, as allowed by law, fine you up to three times the cost of the cleanup, in addition to the actual cost of the cleanup (Oregon Administrative Rules 340-142)

DEQ's role

DEQ is responsible for ensuring that the cleanup is completed in a way that protects human health and the environment. Oregon law also requires DEQ to recover its costs in carrying out this responsibility.

Depending on the type and quantity of material spilled, and the potential threat to people or the environment, DEQ may choose to oversee the cleanup. This oversight may take the form of DEQ staff at the scene, phone contact, document review or a combination of these actions. You are responsible for these oversight costs and will normally be billed within 45 days.

Contacts

Contact the State On-Scene Coordinator in your area:

- Northwest Region Portland-Metro and North Coast, Kevin Chan, 971-563-8819, Kevin.Chan@deq.oregon.gov
- Western Region – Willamette Valley, Cascades, Central and South Coast, Geoff Brown, 541-501-2145, Geoff.Brown@deq.oregon.gov
- Eastern Region – East of Cascades, Charles Kennedy, 541-633-2015, Charles.Kennedy@deq.oregon.gov

Translation or other formats

Español | 한국어 | **繁體中文** | **Русский** | **Tiếng Việt** | العربية

800-452-4011 | TTY: 711 | deqinfo@deq.oregon.gov

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