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City of Puyallup
333 South Meridian
Puyallup, WA 98371

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Document Title: Stormwater Management & BMP Facilities Agreement

Grantor: Puget Sound Energy

Grantee: City of Puyallup

Abbreviated Legal Description: Revised Lot 1 of Declaration of Lot Boundary Adjustment Recorded under Recording No. 202303030112

Complete Legal Description on Page 5 of this Document

Assessor's Tax Parcel or Account Numbers: 0420211030

Reference Number of Related Document(s): N/A

Stormwater Management & BMP Facilities Agreement

A. Parties. The parties to this agreement are Grantee City of Puyallup, a Washington State municipal corporation (City), and Grantor landowner Puget Sound Energy, Inc., a Washington Corporation (Landowner).

B. Property. Landowner is the owner of certain real property (Property), which is legally described in this document and is located at the following address: 325 Todd Road NW, Puyallup, WA 98371.

C. Development Plan & Stormwater Facilities. The site, subdivision or other development plan (Plan) for the Property, specifically known, entitled or described as PSE Operational Training Center, provides for detention, retention, treatment or management of stormwater that is associated with the Property through the use of indentified stormwater facilities or best management practices (collectively, Stormwater Facilities). Upon approval of the Plan by the City, the Plan shall be incorporated herein by this reference. In accordance with the Plan, Landowner shall adequately construct, operate, use, maintain and repair the Stormwater Facilities.

D. Agreement. On the terms and conditions set forth herein, the City and Landowner agree as follows:

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1. The Stormwater Facilities shall be constructed, operated, used, maintained and repaired by Landowner in accordance with the requirements of the Plan, and any other applicable law or regulation.

2. Landowner (which expressly includes its agents, successors and assigns, including any homeowners association) shall adequately and properly operate, use, maintain and repair the Stormwater Facilities as described in the maintenance and operations manual, which is on file with the City, and may be attached and recorded herewith as Exhibit A. This duty extends to all associated pipes and channels, as well as all structures, improvements, and vegetation that are provided to control the quantity and quality of the stormwater. Adequate maintenance shall mean maintenance that is sufficient to keep the Stormwater Facilities in good working order and operating so as to satisfy the design and performance standards of the Plan.

3. Landowner shall regularly inspect the Stormwater Facilities and shall submit an inspection report to the City at least once a year on a date prescribed by the City. The purpose of the inspection(s) is to ensure that the Stormwater Facilities are safe and functioning properly. The scope of the inspection shall include the entire Stormwater Facilities, including but not limited to, berms, outlet structures, pond areas, access roads, and so forth. Deficiencies and any performance or other related issues shall be noted by Landowner in the inspection report. The annual report shall be in a form and include content as prescribed from time to time by the City. An example copy of the report form may be attached hereto as Exhibit B.

4. Landowner hereby grants permission to the City to enter upon the Property to inspect the Stormwater Facilities. Except in case of emergency, the City shall provide Landowner with at least forty-eight (48) hours written notice prior to entering on to the Property. Landowner shall be entitled to have a representative accompany the City during such inspection. The City shall provide Landowner with copies of written inspection reports.

5. If Landowner fails to adequately and properly operate, use, maintain or repair the Stormwater Facilities, the City shall notify Landowner in writing and provide Landowner with a reasonable opportunity to cure. If Landowner fails to timely cure, then the City may enter upon the Property and remedy the issue(s) identified in the notice and those reasonably related thereto; Furthermore, if the City performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like while remedying the identified issues, the City may charge the cost of the remedy to Landowner, and Landowner shall promptly pay the costs to the City. Notwithstanding the foregoing, the City shall be under no obligation to inspect, maintain or repair the Stormwater Facilities.

6. Landowner shall defend, indemnify and hold the City, its officers, officials, employees and volunteers harmless from any and all claims, injuries, damages, losses or suits including attorney fees, arising out of or in connection with activities or operations, performed by Landowner, or on Landowner's behalf, that relate to the Stormwater Facilities and the subject matter of this agreement, except for injuries and damages caused by the negligence of the City.

E. Covenant. The terms and provisions of this agreement constitute a covenant, which is subject to the following: This covenant is an equitable covenant. It touches and concerns the land that is described as the Property herein. The parties intend that this covenant shall bind the parties' successor and assigns. This covenant shall run with the land that is described as the Property herein, and shall bind whoever has possession of the land, in whole or in part, without regard to whether the possessor has title, or has succeeded to the same estate that granting parties

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have or had. Possessors shall include, but are not limited to, leasehold tenants, contract purchasers, subtenants, and adverse possessors. This covenant shall run with the land even in the absence of the transfer of some interest in land, other than the covenant itself, between Landowner and the City. This covenant shall not be governed by the mutuality rule. The burden of the covenant can run independently from the benefit of the covenant, and the benefit need not run. The benefit may be in gross or personal to Landowner or the City. Landowner waives its right to assert any defenses to the enforcement of this covenant, including, but not limited to, the change of neighborhood doctrine, laches, estoppel, balancing of hardships, and abandonment. If Landowner breaches any term of this covenant and agreement, then all remedies in equity and at law, including, but not limited to, injunctions, mandamus, declaratory judgments, and damages, shall be available to the City.

F. Governing Law & Venue. This agreement shall be governed by and construed in accordance with the laws of the State of Washington. The venue for any action that arises from or out of this instrument shall be the Pierce County Superior Court.

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Puget Sound Energy, Inc.

Dated: 7/2/25

BY: [Signature]
 Daniel Michael Fitting
 Manager Facilities Services

City of Puyallup

Dated: 7/3/2025

Signed by:
 BY: [Signature]
 20DB382E4E87470...
 Kenneth Cook
 Development Eneigneering Manager

City of Puyallup

Dated: 7/1/2025

DocuSigned by:
 BY: [Signature]
 Approved as to form:
 Joseph N. Beck
 City Attorney

STATE OF Washington)
)
 COUNTY OF King)

-SS

On this 2nd day of July, 2025, before me personally appeared Daniel Michael Fitting, to me known to be the Manager Facilities Services of Puget Sound Energy, Inc. that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and stated that he or she was authorized to execute said instrument and that the seal affixed is the corporate seal of said corporation.

In Witness Whereof I have hereunto set my hand and affixed my official seal the day and year first above written.



[Signature]
 Printed Name: Zachary P. Bergman
 Notary Public in and for the State of Washington
 Residing in: Maple Valley
 My appointment expires: 6/30/28

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LEGAL DESCRIPTION OF LAND

THAT PORTION OF THE WILLIAM BENSTON DONATION LAND CLAIM NO. 47 IN SECTIONS 16 AND 21, TOWNSHIP 20 NORTH, RANGE 4 EAST OF THE W.M., IN PIERCE COUNTY, WASHINGTON, LYING SOUTHERLY OF CHICAGO, MILWAUKEE & ST. PAUL RAILROAD RIGHT OF WAY AND LYING WESTERLY OF NORTH MERIDIAN (AKA SR 161) AND LYING NORTHERLY OF TODD ROAD NORTHWEST (AKA 23RD AVENUE NORTHWEST) AND LYING EASTERLY OF THAT 15 FOOT STRIP CONVEYED TO PIERCE COUNTY FOR ROAD PURPOSES (4TH STREET NORTHWEST, AKA DESHAUX LANE) NY DEED RECORDED UNDER RECORDING NO. 1783507.

(ALSO KNOWN AS REVISED LOT 1 OF DECLARATION OF LOT BOUNDARY ADJUSTMENT RECORDED UNDER RECORDING NO. 202303030112)

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Exhibit A

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**Stormwater Facilities
 Puget Sound Energy
 Operational Training Center
 325 Todd Road NW
 Puyallup, Washington**
 Tax Parcel Numbers:
 04202-11030

Prepared For:
 Zervas Group Architects
 209 Prospect Street
 Bellingham, WA 98225
 (360) 734-4744

Prepared By:
 Freeland & Associates, Inc.
 220 W. Champion Street;
 Suite 200
 Puyallup, WA 98225
 (360) 650-1408

May 2024



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Operation & Maintenance Guidance

Operation and Maintenance

The property owner shall maintain, operate, and repair the stormwater facilities in compliance with the requirements of the City of Puyallup Stormwater requirements, the current edition of the Department of Ecology Stormwater Management Manual (DOE Manual). This maintenance plan shall be followed for conducting maintenance for the private systems to ensure that facilities are adequately maintained and operated. Pollution should be controlled at the source to the maximum extent possible. Other specific maintenance responsibilities are discussed below.

Stormwater discharges from the private stormwater management systems flow to municipal drainage systems operated by the City of Puyallup, giving the City jurisdiction to inspect the private system for compliance with maintenance requirements.

Maintenance Frequency

Stormwater facilities shall be inspected at least twice per year and shall be cleared of debris, sediment and vegetation when they affect the functioning and/or design capacity of the facility. Preferably, inspections will occur in spring (April) and fall (October). In addition, the Modular Wetland System (MWS) treatment facility has specific recommendations from the manufacturer for maintenance.

Maintenance Equipment

- Vactor truck
- Flush wash truck
- Submersible trash pump and hose to reach vault
- Shovels, rakes, buckets, and other typical landscaping tools

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Maintenance Responsibilities

| Facility | Responsibility |
|-----------------------------------|--------------------------|
| Storm Drains / Conveyance Systems | Property Owner (private) |
| Bioretention Cells | Property Owner (private) |
| Stormwater Detention Systems | Property Owner (private) |
| Downspouts & Footing Drains | Property Owner (private) |

City of Puyallup may, at their exclusive discretion, unilaterally assume storm water facilities operations and maintenance responsibilities at the expense of the Property Owner if they determine that the responsible entity is not inspecting, operating, maintaining, and/or repairing the stormwater facilities per this plan.

Operational Source Control BMPs

Operational Source Control BMPs are non-structural practices that prevent or reduce pollutants from entering stormwater. They include formation of a pollution prevention team, good housekeeping practices, preventive maintenance procedures, spill prevention and cleanup, employee training, inspections of pollution sources, and recordkeeping. The following BMPs must be implemented.

- Assign one or more individuals to be responsible for stormwater pollution control. The Property Owner shall appoint a person as Facility Manager that shall be responsible for managing and implementing this plan. The Property Owner may hire a contractor or management company to act as Facility Manager.
- Promptly contain and cleanup solid and liquid pollutant leaks and spills including oils, solvents, fuels and dust. The Facility Manager will contact the regulatory agencies regarding spill response activities.
- Clean oils, debris, sludge, etc, from all systems regularly. All pavements and storm drain systems shall be inspected for these pollutants in accordance with the Maintenance Schedule.
- Inspect and clean treatment systems, conveyance systems, and catch basins as needed.
- Do not conduct outside spraying, grit blasting, or sanding activities.

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- Educate residents in identifying pollutant sources and in understanding pollutant control measures, spill response procedures, and environmentally acceptable material handling practices. The Property Owner shall provide residents will information regarding pollutant control measures and spill response procedures annually.
- Maintain a Maintenance Log (see Exhibit 1) and keep such record for three years. The log should include: scope of the inspection, the personnel conducting the inspection, the date of the inspection, major observations relating to the implementation of the maintenance plan, and actions taken to correct BMP inadequacies.
- Conduct inspections in accordance with the Operation and Maintenance Log no less than twice annually.

Structural Source Control BMPs

Structural Source Control BMPs are physical, structural, or mechanical devices or facilities that are intended to prevent pollutants from entering stormwater.

- Maintain the stormwater facilities as per the original design and in proper working order.
- Make changes to the system only when approved by a qualified individual.

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Agency Notification Contact Reference List

| Agency & Responsibility | Phone Contacts |
|---|----------------|
| Fire Department <ul style="list-style-type: none"> ▪ Fire Fighting ▪ Emergency medical response ▪ Community evaluation | 911 |
| Police Department <ul style="list-style-type: none"> ▪ Police authority | 911 |
| Hospital <ul style="list-style-type: none"> ▪ Emergency medical treatment | 911 |
| Washington State Department of Ecology Toxics Cleanup Program <ul style="list-style-type: none"> ▪ Reporting spills to soils | (360) 407-7170 |
| National Response Center <ul style="list-style-type: none"> ▪ Reporting spills to water | (800) 424-8802 |
| Washington State Emergency Management Division <ul style="list-style-type: none"> ▪ Reporting spills to water | (800) 258-5990 |
| City of Puyallup <ul style="list-style-type: none"> • Public Works | (253) 841-5505 |

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Operation and Maintenance Tasks

Detention Ponds

Control Structure/Flow Restrictor

Catch Basins

Debris Barriers

Energy Dissipators

Baffle Oil/Water Separators

Coalescing Plate Oil/Water Separators

Catch Basin Inserts

Bioretention Facilities

Oil Stop Valve

Trench Drain

Grounds

Disposal of Trash Debris and Sediment

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Detention Pond

| Detention Pond | | | |
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| Drainage System Feature | Potential Defect | Conditions When Maintenance Is Needed | Minimum Performance Standard |
| Note: table spans multiple pages. | | | |
| General | Trash and Debris | <p>Any trash and debris which exceed 1 cubic foot per 1,000 square feet. In general, there should be no visual evidence of dumping.</p> <p>If less than threshold all trash and debris will be removed as part of next scheduled maintenance.</p> | Site is free of trash and debris. |
| | Poisonous Plants and Noxious Weeds | <p>Any poisonous plants or nuisance vegetation which may constitute a hazard to maintenance personnel or the public.</p> <p>Any evidence of noxious weeds as defined by State or local regulations.</p> | <p>No danger of poisonous vegetation where maintenance personnel or the public might normally be.</p> <p>Eradication of Class A weeds as required by State law. Control of other listed weeds as directed by local policies.</p> <p>Apply requirements of adopted IPM policy for the use of herbicides.</p> |
| | Vegetation Growth and Hazard Trees | <p>Vegetation growth does not allow maintenance access or interferes with maintenance activity (i.e., slope mowing, silt removal, vacuuming, or equipment movements). If trees are not interfering with access or maintenance, do not remove.</p> <p>Dead, diseased, or dying trees are identified. (Use a certified Arborist to determine health of tree or removal requirements.)</p> | <p>Vegetation does not hinder maintenance activities. Harvested vegetation should be recycled into mulch or other beneficial uses (e.g., alders for firewood).</p> <p>Remove hazard trees.</p> |
| | Contaminants and Pollution | Any evidence of oil, gasoline, contaminants, or other pollutants. (Coordinate removal/cleanup with local water quality response agency.) | No contaminants or pollutants present. |
| | Rodent Holes | Any evidence of rodent holes if facility is acting as a dam or berm, or any evidence of water piping through dam or berm via rodent holes. | Rodents destroyed and dam or berm repaired. |
| | Beaver Dams | Dam results in change or function of the facility. | Facility is returned to design function. (Coordinate trapping of beavers and removal of dams with appropriate permitting agencies.) |
| | Insects | When insects such as wasps and hornets interfere with maintenance activities. | <p>Insects destroyed or removed from site.</p> <p>Apply insecticides in compliance with adopted IPM Plan.</p> |

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| Side Slopes of Pond | Erosion | Eroded damage over 2 inches deep where cause of damage is still present or where there is potential for continued erosion. Any erosion observed on a compacted berm embankment. | Slopes have been stabilized using appropriate erosion control measure(s); e.g., rock reinforcement, planting of grass, compaction. If erosion is occurring on compacted berms a licensed civil engineer should be consulted to resolve source of erosion. |
| | Storage Area | Sediment | Accumulated sediment that exceeds 10% (typically 6" to 12") of the designed pond depth unless otherwise specified or affects inletting or outletting condition of the facility. |
| | Liner (If Applicable) | Liner is visible and has more than three 1/4-inch holes in it. | Liner repaired or replaced. Liner is fully covered. |
| Pond Berms (Dikes) | Settlements | Any part of berm which has settled 4 inches lower than the design elevation. If settlement is apparent, measure berm to determine amount of settlement. Settling can be an indication of more severe problems with the berm or outlet works. A licensed civil engineer should be consulted to determine the source of the settlement. | Dike is built back to the design elevation. |
| | Piping | Discernible water flow through pond berm. Ongoing erosion with potential for erosion to continue. (Recommend a Geotechnical engineer be called in to inspect and evaluate condition and recommend repair of condition. | Piping eliminated. Erosion potential resolved. |
| | Tree Growth | Tree growth on berms over 4 feet in height may lead to piping through the berm which could lead to failure of the berm. | Trees removed. If root system is small (base less than 4 inches) the root system may be left in place. Otherwise the roots should be removed and the berm restored. A licensed civil engineer should be consulted for proper berm/spillway restoration. |
| | Erosion | Eroded damage over 2 inches deep where cause of damage is still present or where there is potential for continued erosion. Any erosion observed on a compacted berm embankment. | Slopes have been stabilized using appropriate erosion control measure(s); e.g., rock reinforcement, planting of grass, compaction. If erosion is occurring on compacted berms a licensed civil engineer should be consulted to resolve source of erosion. |

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| Emergency Overflow/ Spillway | Tree Growth | Tree growth on emergency spillways creates blockage problems and may cause failure of the berm due to uncontrolled overtopping. | Trees removed. If root system is small (base less than 4 inches) the root system may be left in place. Otherwise the roots should be removed and the berm restored. A licensed civil engineer should be consulted for proper berm/spillway restoration. |
| | Rock Missing | Only one layer of rock exists above native soil in area five square feet or larger, or any exposure of native soil at the top of flow path of spillway. | Rocks and pad depth are restored to design standards. |

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Control Structure/Flow Restrictor

| Control Structure/Flow Restrictor | | | |
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| Drainage System Feature | Potential Defect | Conditions When Maintenance Is Needed | Minimum Performance Standard |
| Structure | Trash and debris | Trash or debris of more than ½ cubic foot which is located immediately in front of the structure opening or is blocking capacity of the structure by more than 10%. | No Trash or debris blocking or potentially blocking entrance to structure. |
| | | Trash or debris in the structure that exceeds 1/3 the depth from the bottom of basin to invert the lowest pipe into or out of the basin. | No trash or debris in the structure. |
| | | Deposits of garbage exceeding 1 cubic foot in volume. | No condition present which would attract or support the breeding of insects or rodents. |
| | Sediment | Sediment exceeds 60% of the depth from the bottom of the structure to the invert of the lowest pipe into or out of the structure or the bottom of the FROP-T section or is within 6 inches of the invert of the lowest pipe into or out of the structure or the bottom of the FROP-T section. | Sump of structure contains no sediment. |
| | Damage to frame and/or top slab | Top slab has holes larger than 2 square inches or cracks wider than ¼ inch. | Top slab is free of holes and cracks. |
| | | Frame not sitting flush on top slab, i.e., separation of more than ¼ inch of the frame from the top slab. | Frame is sitting flush on top slab. |
| | Cracks in walls or bottom | Cracks wider than ½ inch and longer than 3 feet any evidence of soil particles entering structure through cracks, or maintenance person judges that structure is unsound. | Structure is sealed and structurally sound. |
| | | Cracks wider than ½ inch and longer than 1 foot at the joint of any inlet/outlet pipe or any evidence of soil particles entering structure through cracks | No cracks more than 1/4 inch wide at the joint of inlet/outlet pipe. |
| | Settlement/ misalignment | Structure has settled more than 1 inch or has rotated more than 2 inches out of alignment. | Basin replaced or repaired to design standards. |
| | Damaged pipe joints | Cracks wider than ½-inch at the joint of the inlet/outlet pipes or any evidence of soil entering the structure at the joint of the inlet/outlet pipes. | No cracks more than ¼-inch wide at the joint of inlet/outlet pipes. |
| Contaminants and pollution | Any evidence of contaminants or pollution such as oil, gasoline, concrete slurries or paint. | Materials removed and disposed of according to applicable regulations. Source control BMPs implemented if appropriate. No contaminants present other than a surface oil film. | |
| Ladder rungs missing or unsafe | Ladder is unsafe due to missing rungs, misalignment, rust, cracks, or sharp edges. | Ladder meets design standards and allows maintenance person safe access. | |
| FROP-T Section | Damage | T section is not securely attached to structure wall and outlet pipe structure should support at least 1,000 lbs of up or down pressure. | T section securely attached to wall and outlet pipe. |
| | | Structure is not in upright position (allow up to 10% from plumb). | Structure in correct position. |
| | | Connections to outlet pipe are not watertight or show signs of deteriorated grout. | Connections to outlet pipe are water tight; structure repaired or replaced and works as designed. |
| | | Any holes—other than designed holes—in the structure. | Structure has no holes other than designed holes. |
| Shear Gate | Damaged or missing | Shear gate is missing. | Replace shear gate. |
| | | Shear gate is not watertight. | Gate is watertight and works as designed. |

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| | | Gate cannot be moved up and down by one maintenance person. | Gate moves up and down easily and is watertight. |
| | | Chain/rod leading to gate is missing or damaged. | Chain is in place and works as designed. |
| Orifice Plate | Damaged or missing | Control device is not working properly due to missing, out of place, or bent orifice plate. | Plate is in place and works as designed. |
| | Obstructions | Any trash, debris, sediment, or vegetation blocking the plate. | Plate is free of all obstructions and works as designed. |
| Overflow Pipe | Obstructions | Any trash or debris blocking (or having the potential of blocking) the overflow pipe. | Pipe is free of all obstructions and works as designed. |
| | Deformed Lip or damaged lip | Overflow pipe is bent or deformed. | Overflow pipe does not allow overflow at an elevation lower than design |
| Inlet/Outlet Pipe | Damaged | Cracks wider than 1/4-inch at the joint of the inlet/outlet pipes or any evidence of soil entering at the joints of the inlet/outlet pipes. | No cracks more than 1/4-inch wide at the joint of the inlet/outlet pipe. |
| Metal Grates (If Applicable) | Unsafe grate opening | Grate with opening wider than 7/8 inch. | Grate opening meets design standards. |
| | Trash and debris | Trash and debris that is blocking more than 20% of grate surface. | Grate free of trash and debris. |
| | Damaged or missing | Grate missing or broken member(s) of the grate. | Grate is in place and meets design standards. |
| Manhole Cover/Lid | Cover/lid not in place | Cover/lid is missing or only partially in place. Any open structure requires urgent maintenance. | Cover/lid protects opening to structure. |
| | Locking mechanism Not Working | Mechanism cannot be opened by one maintenance person with proper tools. Bolts cannot be seated. Self-locking cover/lid does not work. | Mechanism opens with proper tools. |
| | Cover/lid difficult to Remove | One maintenance person cannot remove cover/lid after applying 80 lbs. of lift. | Cover/lid can be removed and reinstalled by one maintenance person. |

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Catch Basin

| Catch Basin | | | |
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| Drainage System Feature | Potential Defect | Conditions When Maintenance Is Needed | Minimum Performance Standard |
| Note: table spans multiple pages. | | | |
| General | Trash and Debris | Trash or debris which is located immediately in front of the catch basin opening or is blocking inletting capacity of the basin by more than 10%. | No trash or debris located immediately in front of catch basin or on grate opening. |
| | | Trash or debris (in the basin) that exceeds 60 percent of the sump depth as measured from the bottom of basin to invert of the lowest pipe into or out of the basin, but in no case less than a minimum of six inches clearance from the debris surface to the invert of the lowest pipe. | No trash or debris in the catch basin. |
| | | Trash or debris in any inlet or outlet pipe blocking more than 1/3 of its height. | Inlet and outlet pipes free of trash or debris. |
| | | Dead animals or vegetation that could generate odors that could cause complaints or dangerous gases (e.g., methane). | No dead animals or vegetation present within the catch basin. |
| | Sediment | Sediment (in the basin) that exceeds 60 percent of the sump depth as measured from the bottom of basin to invert of the lowest pipe into or out of the basin, but in no case less than a minimum of 6 inches clearance from the sediment surface to the invert of the lowest pipe. | No sediment in the catch basin. |
| | Structure Damage to Frame and/or Top Slab | Top slab has holes larger than 2 square inches or cracks wider than 1/4 inch. (Intent is to make sure no material is running into basin.) | Top slab is free of holes and cracks. |
| | | Frame not sitting flush on top slab, i.e., separation of more than 3/4 inch of the frame from the top slab. Frame not securely attached. | Frame is sitting flush on the riser rings or top slab and firmly attached. |
| | Fractures or Cracks in | Maintenance person judges that structure is unsound. | Basin replaced or repaired to design standards. |

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| | Basin Walls/ Bottom | Grout fillet has separated or cracked wider than 1/2 inch and longer than 1 foot at the joint of any inlet/outlet pipe or any evidence of soil particles entering catch basin through cracks. | Pipe is regouted and secure at basin wall. |
| | Settlement/ Misalignment | Catch basin has settled more than 1 inch or has rotated more than 2 inches out of alignment. | Basin replaced or repaired to design standards. |
| | Vegetation Inhibiting System | Vegetation growing across and blocking more than 10% of the basin opening. | No vegetation blocking opening to basin. |
| | | Vegetation growing in inlet/outlet pipe joints that is more than six inches tall and less than six inches apart. | No vegetation or root growth present. |
| | Contaminants and Pollution | Any evidence of oil, gasoline, contaminants, or other pollutants. Sheen, obvious oil, or other contaminants present. • Identify and remove source | No contaminants or pollutants present. |
| Catch Basin Cover | Cover Not in Place | Cover is missing or only partially in place. Any open catch basin requires maintenance. | Catch basin cover is closed. |
| | Locking Mechanism Not Working | Mechanism cannot be opened by one maintenance person with proper tools. Bolts into frame have less than 1/2 inch of thread. One or more bolts are missing. | Mechanism opens with proper tools. All bolts are seated and no bolts are missing. Cover is secure. |
| | Cover Difficult to Remove | One maintenance person cannot remove lid after applying normal lifting pressure (Intent is to keep cover from sealing off access to maintenance). | Cover can be removed by one maintenance person. |
| Metal Grates (If Applicable) | Grate Opening Unsafe | Grate with opening wider than 7/8 inch. | Grate opening meets design standards. |
| | Trash and Debris | Trash and debris that is blocking more than 20% of grate surface inletting capacity. | Grate free of trash and debris. |
| | Damaged or Missing | Grate missing or broken member(s) of the grate. | Grate is in place and meets design standards. |
| Oil/Debris Trap (If Applicable) | Dislodged | Oil or debris trap is misaligned with or dislodged from the outlet pipe. | Trap is connected to and aligned with outlet pipe. |

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Debris Barrier & Access Barrier (e.g. Trash Rack)

| Debris Barrier | | | |
|-----------------------------------|---|--|--|
| Drainage System Feature | Potential Defect | Conditions When Maintenance Is Needed | Minimum Performance Standard |
| General | Trash and Debris | Trash or debris that is plugging more than 20% of the openings in the barrier. | Barrier cleared to design flow capacity. |
| | Damaged/ Missing Bars | Bars are bent out of shape more than 3 inches. | Bars in place with no bends more than 3/4 inch. |
| | | Bars are missing or entire barrier missing. | Bars in place according to design specifications. |
| | | Bars are loose and rust is causing 50% deterioration to any part of barrier. | Barrier replaced or repaired to design specifications. |
| Missing or Damaged Debris Barrier | Debris barrier missing or not attached to inlet/ outlet pipe. | Barrier is in place and firmly attached to pipe. | |

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Energy Dissipater / Outfall Protection

| Energy Dissipaters | | | |
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| Drainage System Feature | Potential Defect | Conditions When Maintenance Is Needed | Minimum Performance Standard |
| External: | | | |
| Rock Pad | Missing or Moved Rock | Only one layer of rock exists above native soil in area five square feet or larger, or any exposure of native soil. | Rock pad has been replaced to design function. |
| | Erosion | Soil erosion in or adjacent to rock pad. | Rock pad has been replaced to design function. |
| | Sediment | Sediment on top of rock pad exceeds 10% of the surface. | Rock pad has been cleared of sediment. |
| | Poisonous Plants and Noxious Weeds | Any poisonous plants or nuisance vegetation which may constitute a hazard to maintenance personnel or the public. Any evidence of noxious weeds as defined by State or local regulations. | No danger of poisonous vegetation where maintenance personnel or the public might normally be. Eradication of Class A weeds as required by State law. Control of other listed weeds as directed by local policies. Apply requirements of adopted IPM policy for the use of herbicides. |
| | Other Weeds | Other weeds (not listed on State noxious weed lists) are present on the rock pad. | Weeds have been removed per the routine maintenance schedule, following IPM protocols. |
| Dispersion Trench | Pipe Plugged with Sediment | Accumulated sediment that exceeds 20% of the design depth. | Pipe is free of sediment and meets design specifications. |
| | Not Discharging Water Properly | Visual evidence of water discharging at concentrated points along trench (normal condition is a "sheet flow" of water along trench). Intent is to prevent erosion damage. | Trench has been repaired or modified such that it does not discharge at concentrated points and meets design function. |
| | Perforations Plugged | Over 1/2 of perforations in pipe are plugged with debris and sediment. | Perforated pipe has been cleaned or replaced and <25% of perforations are plugged. |
| | Water Flows Out Top of "Distributor" Catch Basin | Maintenance person observes or receives credible report of water flowing out during any storm less than the design storm or its causing or appears likely to cause damage. | Facility rebuilt per design specifications or redesigned to meet approved City standards. |
| | Receiving Area Over-Saturated | Water in receiving area is causing or has potential of causing landslide problems. | No danger of landslides. |
| Gabions | Damaged Mesh | Mesh of gabion broken, twisted or deformed so structure is weakened or rock may fall out. | Mesh is intact, no rock missing. |
| | Corrosion | Gabion mesh shows corrosion through more than 1/4 of its gage. | All gabion mesh capable of containing rock and retaining designed form. |

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| Energy Dissipaters | | | |
|-------------------------|--|---|--|
| Drainage System Feature | Potential Defect | Conditions When Maintenance Is Needed | Minimum Performance Standard |
| | Collapsed or Deformed Baskets | Gabion basket shape deformed due to any cause. | All gabion baskets intact, structure stands as designed. |
| | Missing Rock | Any rock missing that could cause gabion to lose structural integrity. | No rock missing. |
| Internal: | | | |
| Manhole/ Chamber | Worn or Damaged Post, Baffles, Side of Chamber | Structure dissipating flow deteriorates to 1/2 of original size or any concentrated worn spot exceeding one square foot which would make structure unsound. | Structure replaced to design standards. |

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| Oil/Water Separator (API Type) | | | |
|-----------------------------------|-------------------------------|---|---|
| Drainage System Feature | Potential Defect | Conditions When Maintenance Is Needed | Minimum Performance Standard |
| Note: table spans multiple pages. | | | |
| General | Poor Water Quality | Inspection of discharge water for obvious signs of poor water quality (i.e. obvious oil or other contaminants present). | Effluent discharge from vault is clear, without thick visible sheen. |
| | Sediment Accumulation | Sediment depth in bottom of vault exceeds 6-inches in depth. | No sediment deposits on vault bottom that would impede flow through the vault and reduce separation efficiency. |
| | Trash and Debris Accumulation | Trash and debris accumulation in vault, or pipe inlet/outlet, floatables and non-floatables. | Vault and inlet/outlet piping free of trash and debris. |
| | Oil Accumulation | Oil accumulations that exceed 1-inch, at the surface of the water. | Oil extracted from vault by vacuuming. Disposal in accordance with state and local rules and regulations. |
| | Damaged Pipes | Inlet or outlet piping damaged or broken and in need of repair. | Pipe repaired or replaced to design specifications. |

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| Oil/Water Separator (API Type) | | | |
|-----------------------------------|--|---|---|
| Drainage System Feature | Potential Defect | Conditions When Maintenance Is Needed | Minimum Performance Standard |
| Note: table spans multiple pages. | | | |
| | Vault Structure Damage – Includes Cracks in Walls Bottom | Maintenance person judges that structure is unsound. | Basin replaced or repaired to design standards. |
| | | Grout fillet has separated or cracked wider than 1/2 inch and longer than 1 foot at the joint of any inlet/outlet pipe or any evidence of soil particles entering catch basin through cracks. | Pipe is regouted and secure at basin wall. |
| | | Cracks wider than 1/2-inch at the joint of any inlet/outlet pipe or evidence of soil particles entering through the cracks. | Vault repaired so that no cracks exist wider than 1/4-inch at the joint of the inlet/outlet pipe. |
| | Damage to Frame and/or Top Slab | Top slab has holes larger than 2 square inches or cracks wider than 1/4 inch. (Intent is to make sure no material is running into basin.) | Top slab is free of holes and cracks. |
| | | Frame not sitting flush on top slab, i.e., separation of more than 3/4 inch of the frame from the top slab. Frame not securely attached. | Frame is sitting flush on the riser rings or top slab and firmly attached. |
| | Baffles | Baffles corroding, cracking, warping and/or showing signs of failure as determined by maintenance/inspection person. | Baffles repaired or replaced to design specifications. |
| Access Manhole | Cover/lid not in place | Cover/lid is missing or only partially in place. Any open manhole requires immediate maintenance. | Manhole access covered. |
| | Locking mechanism not working | Mechanism cannot be opened by one maintenance person with proper tools. Bolts cannot be seated. Self-locking cover/lid does not work. | Mechanism opens with proper tools. |
| | Cover/lid difficult to remove | One maintenance person cannot remove cover/lid after applying 80 lbs. of lift. | Cover/lid can be removed and reinstalled by one maintenance person. |
| | Ladder rungs unsafe | Missing rungs, misalignment, rust, or cracks. | Ladder meets design standards. Allows maintenance person safe access. |

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Coalescing Plate Oil/Water Separator

| Coalescing Plate Oil/Water Separator | | | |
|--|---|--|---|
| Drainage System Feature | Potential Defect | Conditions When Maintenance Is Needed | Minimum Performance Standard |
| General | Poor Water Quality | Inspection of discharge water for obvious signs of poor water quality (i.e. obvious oil or other contaminants present). | Effluent discharge from vault clear with no thick visible sheen. |
| | Sediment Accumulation | Sediment depth in bottom of vault exceeds 6- inches in depth and/or visible signs of sediment on plates. | No sediment deposits on vault bottom and plate media that would impede flow through the vault and reduce separation efficiency. |
| | Trash and Debris Accumulation | Trash and debris accumulated in vault, or pipe inlet/outlet, floatables and non-floatables. | Vault and inlet/ outlet piping is free of trash and debris. |
| | Oil Accumulation | Oil accumulation that exceeds 1-inch at the water surface. | Oil has been extracted from vault. Coalescing plates have been cleaned. No visible oil depth on water. |
| | Damaged Coalescing Plates | Plate media broken, deformed, cracked and/or showing signs of failure. | A portion of the media pack or the entire plate pack has been replaced (depending on severity of failure). |
| | Damaged Pipes | Inlet or outlet piping damaged or broken and in need of repair. | Pipe has been repaired and or replaced to design specifications. |
| | Baffles | Baffles corroding, cracking, warping and/ or showing signs of failure as determined by maintenance/inspection person. | Baffles have been repaired or replaced to design specifications. |
| | Vault Structure Damage – Includes Cracks in Walls, Bottom | | Cracks wider than 1/2-inch or evidence of soil particles entering the structure through the cracks, or maintenance/inspection personnel determine that the vault is not structurally sound. |
| Cracks wider than 1/2-inch at the joint of any inlet/outlet pipe or evidence of soil particles entering through the cracks. | | | Vault repaired so that no cracks exist wider than 1/4-inch at the joint of the inlet/outlet pipe. |
| Access Manhole | Cover Not in Place | Cover is missing or only partially in place. Any open manhole requires maintenance. | Manhole is closed. |
| | Locking Mechanism Not Working | Mechanism cannot be opened by one maintenance person with proper tools. Bolts into frame have less than 1/2 inch of thread (may not apply to self-locking lids). | Mechanism opens with proper tools. |
| | Cover Difficult to Remove | One maintenance person cannot remove lid after applying normal lifting pressure. Intent is to keep cover from sealing off access to maintenance. | Cover can be removed and reinstalled by one maintenance person. |
| | Ladder Rungs Unsafe | Ladder is unsafe due to missing rungs, misalignment, not securely attached to structure wall, rust, or cracks. | Ladder meets design specifications. Allows maintenance person safe access. |
| | Structure Damage to Frame and/or Top Slab | | Top slab has holes larger than 2 square inches or cracks wider than 1/4 inch. (Intent is to make sure no material is running into basin.) |
| Frame not sitting flush on top slab, i.e., separation of more than 3/4 inch of the frame from the top slab. Frame not securely attached. | | | Frame is sitting flush on the riser rings or top slab and firmly attached. |

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| Coalescing Plate Oil/Water Separator | | | |
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| Drainage System Feature | Potential Defect | Conditions When Maintenance Is Needed | Minimum Performance Standard |
| Ventilation Pipes | Plugged | Any obstruction to the ventilation pipes. | Ventilation pipes are clear. |
| Shutoff Valve | Damaged or inoperable | Shutoff valve cannot be opened or closed. | Shutoff valve operates normally. |

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Catch Basin Insert

| Catch Basin Insert | | | |
|-------------------------|---|--|--|
| Drainage System Feature | Potential Defect | Conditions When Maintenance Is Needed | Minimum Performance Standard |
| General | Sediment Accumulation | When sediment forms a cap over the insert media of the insert and/or unit. | No sediment cap on the insert media and its unit. |
| | Trash and Debris Accumulation | Trash and debris accumulates on insert unit creating a blockage/restriction. | Trash and debris removed from insert unit. Runoff freely flows into catch basin. |
| | Media Insert Not Removing Oil | Effluent water from media insert has a visible sheen. | Effluent water from media insert is free of oils and has no visible sheen. |
| | Media Insert Water Saturated | Catch basin insert is saturated with water and no longer has the capacity to absorb. | Media insert has been replaced. |
| | Media Insert Oil Saturated | Media oil saturated due to petroleum spill that drains into catch basin. | Media insert has been replaced. |
| | Media Insert Use Beyond Normal Product Life | Media has been used beyond the typical average life of media insert product. | Media removed and replaced at regular intervals (frequency depending on insert product). |

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Bioretention System

| Bioretention System | | | |
|-----------------------------------|------------------|---|--|
| Drainage System Feature | Potential Defect | Conditions When Maintenance Is Needed | Minimum Performance Standard |
| Note: table spans multiple pages. | | | |
| General | Pests | Signs of pest infestations (IPM protocol threshold(s) are exceeded), including rodent holes or mounds that disturb dispersion flow paths. | <p>Pests are not present or engaged in activities that present a significant public health risk or compromise to the intended design function of the facility. Pests that have exceeded acceptable thresholds have been addressed using appropriate IPM measures.</p> <p>Standing water that may allow mosquito breeding has been removed and cause of standing water has been addressed (see "Ponded Water").</p> |
| Facility Area | Trash and Debris | Trash and debris present in facility area. | Pest-damaged vegetation has been removed. Facility area is free of trash and debris. |
| | Pet Waste | Large volumes of feces from domestic pets are present. | <p>Pet waste removed.</p> <p>Pet waste station or additional signage installed, if appropriate.</p> |
| | Mulch | Mulch depth is less than 2 inches or the facility has bare spots without mulch cover. | Mulch has been restored to a depth of 2 to 3 inches and is appropriate to the location within the facility (e.g. compost mulch in the bottom and wood chips on side slopes). |
| Facility Bottom Area | Sediment | Sediment accumulated to extent that infiltration rate is reduced, water can be seen to be ponding, or surface storage capacity is significantly impacted. | <p>Source of sediment has been identified and controlled.</p> <p>Excess sediment has been removed, and damaged vegetation and mulch has been replaced.</p> |
| | Leaves | After fall leaf drop, leaves have accumulated in the facility in a manner to pose a risk of impeding water flow or clogging the outlet. | Leaves have been removed. |
| | Ponded Water | Water overflows during storms smaller than the design event, or ponded water remains in the basin more than 48 hours after the end of a storm. | Cause of excessive ponding has been identified by investigating: 1) potential that debris build-up is impeding infiltration; 2) condition of underdrain (if present); 3) potential that other water inputs are present (e.g. groundwater, illicit connections); 4) facility size is appropriate to contributing area; and 5) condition of bioretention soil media. |

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| Bioretention System | | | |
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| Drainage System Feature | Potential Defect | Conditions When Maintenance Is Needed | Minimum Performance Standard |
| Note: table spans multiple pages. | | | |
| | | | Cause of excessive ponding has been corrected. Engineer has been consulted where necessary. |
| Earthen Side Slopes and Berms | Erosion at Inlets/ Outlets | Erosion (gullies/ rills) greater than 2 inches deep around inlets, outlet, and alongside slopes. | For channels or cuts over 3 inches deep, temporary erosion control measures have been put into place until permanent repairs are made. Source of erosion has been addressed/ eliminated and eroded areas repaired per design specifications, with additional stabilizing material (cobble, vegetation, etc.) added as necessary. |
| | Erosion of Side Slopes | Erosion of sides causes slope to become a hazard. | Source of erosion has been addressed and side slopes repaired to design specifications. Slopes have stabilizing material where necessary. |
| | Settlement | Settlement greater than 3 inches (relative to undisturbed sections of berm). | Slopes and berm have been restored to design elevations/ heights. |
| | Berm Leaking | Downstream face of berm wet; seeps or leaks evident. | Any seeps or leaks have been plugged and berm material and compaction are per design specifications. Engineer has been consulted where necessary. |
| | Rodents in Berm | Any evidence of rodent holes or water piping in berm. | Rodents have been eradicated (see "Pests in Facility"). Holes have been filled and berm compacted (see "Berm Leaking"). |
| Amended Soil | Soil Nutrients | Soil not providing plant nutrients. | Soil providing plant nutrients. |
| | Bare Spots | Bare spots on soil in bioretention area. | No bare spots. Bioretention area covered with vegetation or mulch mixed into the underlying soil. |
| | Compaction | Poor infiltration due to soil compaction in the bioretention area. | No soil compaction in the bioretention area. |
| Low Permeability Check Dams and Weirs | Sediment or Other Debris Blocking | Sediment, vegetation, or debris accumulated at or blocking (or having the potential to block) check dam, flow control weir or orifice. | No blockage present of check dam, flow control weir, or orifice. Any likely immediate sources of additional debris or sediment (e.g. additional dead plant material, erosion issue, etc. upstream) addressed or removed. |
| | Erosion or Undercutting | Erosion and/or undercutting present. | Eroded and/or undercut areas have been repaired and sources of issue addressed to prevent further erosion/undercutting at weir. |
| | Grade Board Not Level | Grade board or top of weir damaged or not level. | Grade board is undamaged (repaired or replaced) and level. |

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| Bioretention System | | | |
|-------------------------------------|-------------------------------|---|--|
| Drainage System Feature | Potential Defect | Conditions When Maintenance Is Needed | Minimum Performance Standard |
| Note: table spans multiple pages. | | | |
| Inlet | Erosion at Inlet | Concentrated flows are causing erosion at inlet. | A cover of rock or cobbles or other erosion protection measure (e.g., matting) is in place to protect the ground where concentrated water enters the facility (e.g., a pipe, curb cut or swale). |
| Splash Block Inlet | Water Misdirected from Inlet | Water is not being directed properly to the facility and away from the inlet structure. | Splash block(s) reconfigured/ repaired to direct water to facility and away from structure. |
| Curb Inlet/Outlet | Leaf Accumulation at Curb Cut | Accumulated leaves or other debris at curb cuts (inlets and outlets) can block water flow and proper function of the facility. Maintenance is particularly important in the fall. | Curb cuts and adjacent gutters are free of leaves and debris, and water can flow freely into (and out of) the facility. |
| Pipe Inlet/Outlet | Pipe is Damaged | Pipe is damaged. | Pipe repaired or replaced to design specifications. |
| | Pipe is Clogged | Pipe is clogged, completely or partially. Problem material may include leaves, debris, trash, roots, sediment, or other material. | Pipe is unclogged and free of any obstructions. Pipe functioning at design capacity. |
| | Access is Blocked | Vegetation is blocking access for inspection. | Area within 1 foot of inlets/outlets is clear of vegetation, and access pathways are clear and maintained where necessary. |
| Trash Rack | Trash and Debris | Trash or other debris is present on trash rack. Capacity may be reduced by buildup of trash or debris. | Trash rack is free of trash, leaves, debris, or other foreign material. |
| | Bar Screen Damage | Bar screen on trash rack is damaged or missing. | Bar screen has been repaired/ replaced to design specifications. |
| Overflow | Overflow Blocked | Overflow capacity is reduced by sediment or debris. | Overflow area is free of sediment and debris and capacity functions per design standards. |
| Underdrain Pipe | Reduced Capacity | Plant roots, sediment, or debris may reduce the capacity of the underdrain. Symptoms may include ponded water in facility bottom area. | Underdrain pipe is free of plant roots, sediment, and debris. Infiltration and pipe capacity functioning per design function. |
| Vegetation (continues on next page) | Plant Health | Plants not thriving across at least 80% of the entire design vegetated area within the BMP; overly dense vegetation requiring pruning. | Healthy water tolerant plants in bioretention area, plants thriving across at least 80% of the entire design vegetated area within the facility. |

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| Bioretention System | | | |
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| Drainage System Feature | Potential Defect | Conditions When Maintenance Is Needed | Minimum Performance Standard |
| Note: table spans multiple pages. | | | |
| | Diseased Plant Material | Diseased plants or plant material is present in the facility. | Diseased plants and plant parts have been removed and disposed of in an approved location (off-site). Potential sources of and conditions exacerbating disease have been addressed (see Pacific Northwest Plant Disease Management Handbook). Vegetated areas replanted as necessary to maintain vegetative coverage per design. |
| | Vegetation Needs Pruning | Trees and shrubs need regular maintenance and/or corrective pruning. | Trees and shrubs pruned per routine maintenance schedule, appropriate to individual species and age of plants. All pruning of mature trees done under direct supervision of ISA certified arborist. |
| | Large Trees and Shrubs Interfering | Large trees and shrubs interfere with operation of the facility or access for maintenance. | Trees and shrubs have been pruned using most current ANSI A300 standards and ISA BMPs. Trees and shrubs removed if necessary for operation of facility per design function. |
| | Dead Vegetation | Standing dead vegetation is present (particularly in fall and spring). | Standing dead vegetation has been removed from site; gaps in vegetation have been replaced with new plantings where necessary, or appropriate erosion control measures put in place until vegetation replacement is feasible. |
| | Maintenance Needed Around Mature Trees | If conditions warrant maintenance work or planting of new vegetation around mature trees (within the dripline), appropriate care must be taken to avoid adverse impacts to the mature tree(s). | The most current ANSI A300 standards and ISA BMPs have been followed to the extent practicable (e.g., take care to minimize any damage to tree roots and avoid compaction of soil) when working around and under mature trees. New plantings under mature trees include mainly plants that come as bulbs, bare root or in 4-inch pots; new plants in no larger than 1-gallon containers. |
| | Stakes or Guys Present | Stakes or guys present in plantings installed for over 1 year. | Stakes or guys have been removed from new vegetation after 1 year since installation. Holes have been backfilled where necessary. |
| | Vehicular Sight Lines Impaired by Vegetation | Vegetation causes some visibility (line of sight) or driver safety issues. | Vegetation has been pruned to appropriate height and spread to maintain sight clearances. If continued (regular) pruning of a given plant have been necessary, plant(s) have been relocated to a more appropriate location and replaced with plant(s) of appropriate mature size. |
| | Emergent Vegetation Compromises Conveyance | Emergent vegetation compromises conveyance (may become too dense). | Emergent vegetation has been thinned and does not impede conveyance. |

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| Bioretention System | | | |
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| Drainage System Feature | Potential Defect | Conditions When Maintenance Is Needed | Minimum Performance Standard |
| Note: table spans multiple pages. | | | |
| | Noxious Weeds Present | Noxious weeds are present among the site vegetation. Remove, bag, and dispose of Class A & B noxious weeds immediately per WA law. Make reasonable attempts to remove and dispose of Class C noxious weeds. See http://www.nwcb.wa.gov/ . Follow Integrated Pest Management (IPM) protocols. | Noxious weeds are not present on site above thresholds established by WA law. |

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Grounds

| Maintenance Component | Defect | Conditions When Maintenance Is Needed | Results Expected When Maintenance Is Performed |
|-----------------------|----------------------|--|---|
| General | Weeds (Nonpoisonous) | Weeds growing in more than 20% of the landscaped area (trees and shrubs only). | Weeds present in less than 5% of the landscaped area. |
| | Safety Hazard | Any presence of poison ivy or other poisonous vegetation. | No poisonous vegetation present in landscaped area. |
| | Trash or Litter | Paper, cans, bottles, totaling more than 1 cubic foot within a landscaped area (trees and shrubs only) of 1,000 square feet. | Area clear of litter. |
| Trees and Shrubs | Damaged | Limbs or parts of trees or shrubs that are split or broken which affect more than 25% of the total foliage of the tree or shrub. | Trees and shrubs with less than 5% of total foliage with split or broken limbs. |
| | | Trees or shrubs that have been blown down or knocked over. | Tree or shrub in place free of injury. |
| | | Trees or shrubs which are not adequately supported or are leaning over, causing exposure of the roots. | Tree or shrub in place and adequately supported; remove any dead or diseased trees. |

Grounds Operations & Maintenance Notes:

Grounds shall be inspected a minimum of semi-annually and increased as necessary in the growing season.

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The following manual will be used to maintain the Puget Sound Energy Operational Training Center Oil Stop Valve.

<https://www.conteches.com/media/qfrihtoh/osv-maintenance-guide.pdf>

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Trench Drain Maintenance

Property owner will own, operate, and maintain trench drains. Operation and maintenance of the trench drains will be incorporated into the annual stormwater training. Inspection and maintenance activities will be performed by the Facility Manager.

Inspections

All components of the trench drain will be inspected twice per year to ensure optimal performance. Inspections to include the following procedures:

- Examine trench drains and monitor for debris and sediment accumulation.
- Examine trench drain components including frame, grate and concrete edge for damage.

Monitoring observations and records to be recorded in log book.

When Maintenance is Needed

Accumulated dirt and sediment will need to be cleaned out of the trench drain. When sediment accumulation exceeds one inch, or begins to impact performance, the structure will be scraped and /or pressure washed and the solids and/or washwater to be vacuumed out or containerized.

If trench drain components are damaged repairs will need to be performed. Broken parts are to be replaced immediately. Cracked or chipped concrete to be patched.

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Disposal of Trash Debris and Sediment

Trash and Debris

Small amounts of trash and debris can be put into your solid waste container. Large amounts may require hiring a vendor to dispose of the material. If using a vendor, ensure that the vendor properly disposes of waste.

Sediment

1. Clean sediment may be used as landscape material or sent to yard waste recyclers.
2. Sediment that does not appear to be heavily contaminated with oil or grease can be double-bagged and put into your solid waste container. Material that appears to be heavily contaminated must be disposed of by a qualified vendor.

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The following O & M Stormwater Facilities Exhibit will be used to maintain the Puget Sound Energy Operational Training Center Storm System.

<https://cityview.puyallupwa.gov/Workspace/CityViewDMS/Document?id=186064>

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Compost-Amended Soil

| Compost-Amended Soil | | | |
|-------------------------|---------------------------------------|--|--|
| Drainage System Feature | Potential Defect | Conditions When Maintenance Is Needed | Minimum Performance Standard |
| Soil Media | Soils Waterlogged or Not Infiltrating | Soils become waterlogged, or otherwise do not appear to be infiltrating. | Soils have been aerated or amended such that infiltration occurs and soils to not remain completely saturated, per design specifications. |
| | Erosion/Scouring | Areas of potential erosion are visible, such as gullies or scouring. | Any eroded areas have been repaired, and sources of erosion addressed to prevent further soil erosion. |
| Vegetation | Vegetation in Poor Health | Less than 75% of planted vegetation is healthy with a generally good appearance. | At least 75% of planted vegetation is healthy with generally good appearance. Any conditions found that were deleterious to plant health have been corrected where possible. Routine maintenance schedule has been updated as necessary to ensure continued plant health and satisfactory appearance. |
| | Poisonous Plants and Noxious Weeds | Any poisonous plants or nuisance vegetation which may constitute a hazard to maintenance personnel or the public. Any evidence of noxious weeds as defined by State or local regulations. | No danger of poisonous vegetation where maintenance personnel or the public might normally be. Eradication of Class A weeds as required by State law. Control of other listed weeds as directed by local policies. Apply requirements of adopted IPM policy for the use of herbicides. |
| | Other Weeds Present | Other weeds (not listed on City/State noxious weed lists) are present on site. | Weeds have been removed per the routine maintenance schedule, following IPM protocols. |

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Exhibit B

Annual Inspection Report
 City of Puyallup - Stormwater BMP Facilities Inspection and Maintenance Log

Facility Name _____
 Address _____
 Begin Date _____ End Date _____

| Date | BMP ID# | BMP Facility Description | Inspected by: | Cause for Inspection | Exceptions Noted | Comments and Actions Taken |
|------|---------|--------------------------|---------------|----------------------|------------------|----------------------------|
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Instructions:
 Record all inspections and maintenance for all treatment BMPs on this form. Use additional log sheets and/or attach extended comments or documentation as necessary. Submit a copy of the completed log with the Annual Independent Inspectors' Report to the City, and start a new log at that time.

BMP ID# — Always use ID# from the Operation and Maintenance Manual.
 Inspected by — Note all inspections and maintenance on this form, including the required independent annual inspection.
 Cause for inspection — Note if the inspection is routine, pre-rainy-season, post-storm, annual, or in response to a noted problem or complaint.
 Exceptions noted — Note any condition that requires correction or indicates a need for maintenance.
 Comments and actions taken — Describe any maintenance done and need for follow-up.

Return Form to: Stormwater Engineer/City of Puyallup
 333 South Meridian
 Puyallup, WA 98371

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