

Stormwater Pollution Prevention Plan (SWPPP)

for:

Hughes Farms, Inc
13225 Farm to Market Road
Mount Vernon, WA 98273
360-424-3772

SWPPP Contact(s):

Allyson McBride
13225 Farm to Market
Mount Vernon, WA 98273
360-424-3772

SWPPP Preparation Date:

12/ 16 / 2021

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Section 1. Facility Description and Contact Information

1.1 Facility Information

Facility Information

Name of Facility: Hughes Farms Potato Packing Plant

Street: 13225 Farm to Market Road

City: Mount Vernon

State: WA ZIP Code: 98273

County: Skagit

Permit Number: WA0991008

Latitude/Longitude - Use **one** of three possible formats, and specify method (Optional)

Latitude: 48.453651° N

Longitude: 122.442211° W

Estimated area of industrial activity at site exposed to stormwater: 4.84 (acres)

Discharge Information

Does this facility discharge stormwater into surface waters? ☒ Yes ☐ No

Does this facility discharge stormwater into a municipal storm water conveyance system? ☐ Yes ☒ No

SIC Code(s): 0723 (Crop Prep for Market)

1.2. Contact Information/Responsible Parties

Facility Operator (s):

Name: Jose Velasquez

Address: 13225 Farm to Market Road

City, State, Zip Code: Mount Vernon, WA 98273

Telephone Number: 360-424-3772 Cell Phone Number: 360-770-2176

Email address: allyson@hughesfarms.net

Fax number: 360-428-4766

Facility Owner (s):

Name: Hughes Farms, Inc

Address: 13225 Farm to Market Road

City, State, Zip Code: Mount Vernon, WA 98273

Telephone Number: 360-424-3772

Email address: allyson@hughesfarms.net

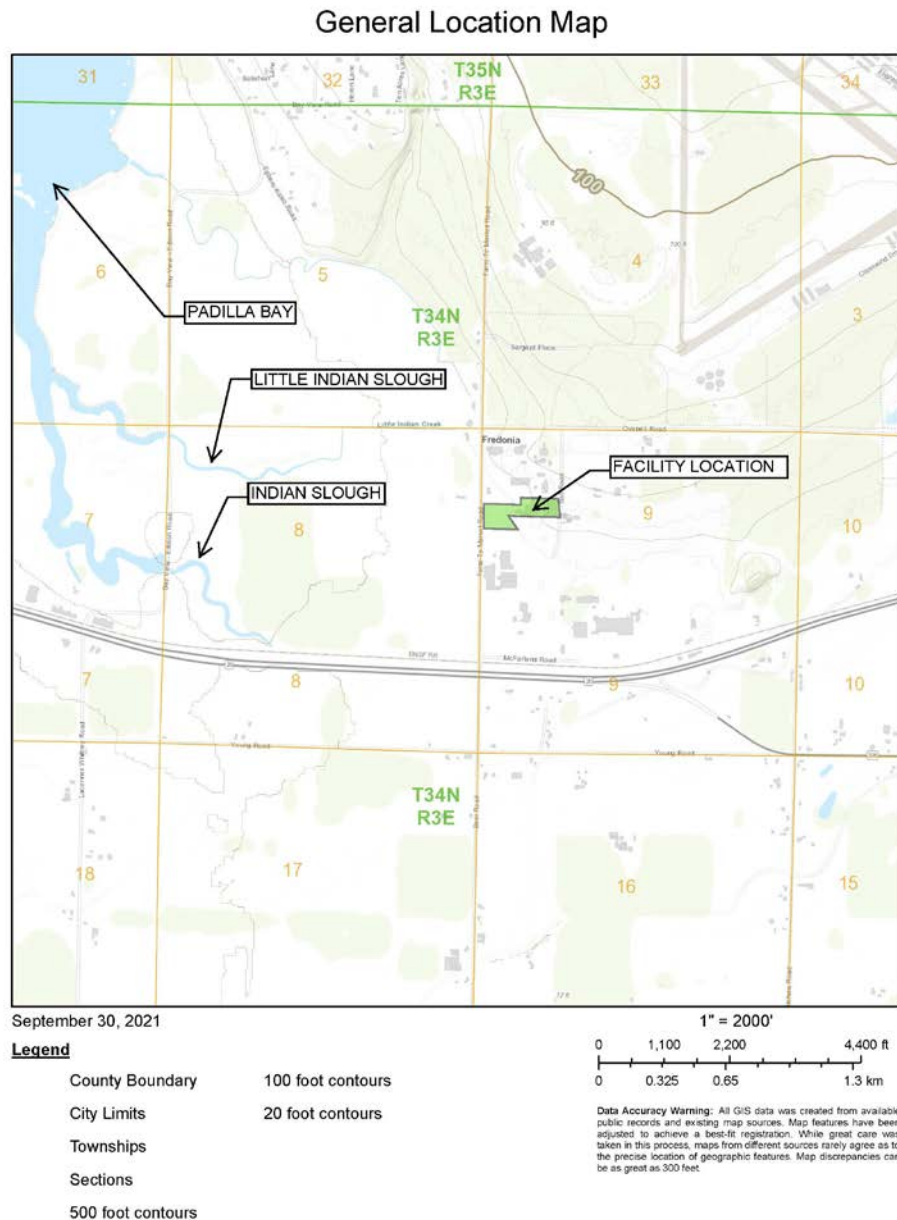
Fax number: 360-428-4766

SWPPP Contact:

Name: Allyson McBride
Telephone number: 360-424-3772 Cell Phone Number
Email address: allyson@hughesfarms.net
Fax number: 360-428-4766

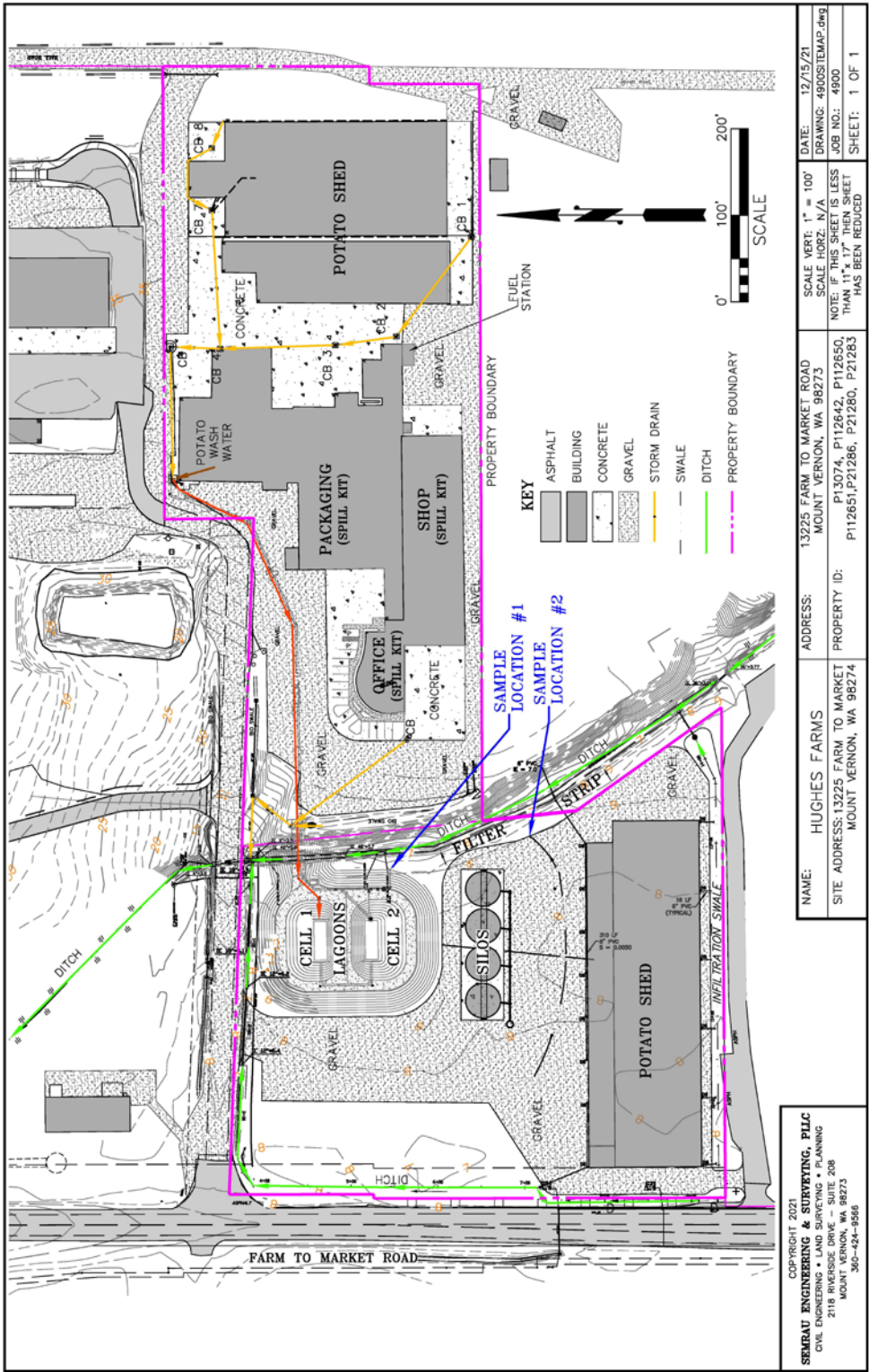
1.3. General Location Map

Below is the general location map for this facility, also found in Appendix A.



Copyright 2021

1.4. *Site Map* A scaled 11x17 copy of this site map is included in Appendix B.



1.5. Stormwater Pollution Prevention Team

Staff Names and/or Title	Individual Responsibilities
Jose Velasquez	Monthly inspections, turbidity monitoring, specific BMP maintenance/implementation, SWPPP updates, Employee Training;
Allison McBride	Reporting and SWPPP updates
Michael Hughes	Sampling,

Section 2. Facility Assessment

2.1. Facility Description

The facility engages in seasonal potato washing operations between September and March. During operations, the facility operates one 8 - 10-hour shift per day.

Potatoes are harvested (dug) from the fields and loaded into trucks for transport to this facility. The harvest time is scheduled to facilitate leaving a minimum amount of soil on the harvested potatoes as possible. Potato trucks are backed into the facility and are unloaded onto the processing line where the remaining dirt is removed and potatoes are inspected with culls removed. The new dirt eliminator drops no dirt during the process. All dirt and culled potatoes are returned to the harvest fields as the holding truck fills. There is no storage of dirt or culled potatoes at the sorting site.

From here the potatoes are boxed for cold storage. Before shipping, the potatoes are moved to the packaging facility where they are washed, inspected, graded and packaged for wholesale purchase and distribution. Each truck holds approximately 12 tons of potatoes. The facility can process two trucks per hour.

Wash water for the process line is provided through an on-site well. Wash water is reused approximately 3 times before it is discharged to a lined settling **lagoon**. In addition, at the end of each day floor washing is conducted that uses a small amount of chlorine as sanitizer. This washdown water is also discharged to the lagoon as well.

After packaging, the potatoes are placed in cold storage until they are shipped out in semi-trailer trucks for transport to market. Also stored in cold storage is broccoli product that is harvested and packaged in the field prior to delivery and storage at this facility.

2.2. Industrial Activity, Materials Inventory, and Associated Pollutants

Per S7.B(1c) of the NPDES Permit., the inventory of industrial activities will identify all areas associated with industrial activities which HAVE BEEN or MAY POTENTIALLY BE sources of significant amounts of pollutants. Those areas/activities are:

Industrial Activity / Exposed Materials	Associated Pollutants
Unloading/Loading potatoes	Sediment from unwashed potatoes
Driving transport trucks onto site	Sediment from field in tire treads
Vehicle/Equipment fueling	Fuel/lubrication/coolants
Graveled area	Sediment from trucks
Wash-down of interior floors	Sediment, chemical disinfectant
Wash-water treatment at lagoon	Sediment-laden water

2.3. *Spills and Leaks*

Areas of Site Where Potential Spills/Leaks Could Occur

Location	Outfalls
Equipment fueling at fuel station	Outfall 1, Lagoon to Field Ditch
Chemical Storage	Outfall 1, Lagoon to Field Ditch

Section 3. Best Management Practices (BMPs)

This SWPPP includes a description of the BMPs that are used currently or are recommended to be implemented to eliminate or reduce the potential to contaminate stormwater.

3.1 Operational Source Control BMP

a) Pollution Prevention Team

This section identifies specific individuals by name or title who are responsible for developing the SWPPP, assisting the facility operator in its implementation, maintenance, and modification.

These members include:

Jose Velasquez	Inspections, turbidity monitoring, training
Allision McBride	DNR reporting and SWPPP updates
Michael Hughes	Sampling

b) Good Housekeeping

This SWPPP includes BMPs that define ongoing maintenance and cleanup, as appropriate, of areas which may contribute pollutants to stormwater discharges. With each should be included a schedule and frequency for completing each.

Applicable here are:

S454 BMPs for Good Housekeeping (*full text contained in Appendix G*)

- Manual sweeping of all appropriate surfaces as needed for the collection and disposal of dust and debris that could contaminate stormwater. *If rapid re-accumulation occurs, the contracting of a vacuum sweeper may be required, with continued manual sweeping of inaccessible areas.*
- Identify and control all on-site sources of dust to minimize stormwater contamination from the deposition of dust on areas exposed to precipitation.
- Keep all dumpsters lids closed when not in use.
- Promptly contain and clean up solid and liquid pollutants and spills including cleaning chemicals, vehicle fluids/fuels, and dust from site operations on any exposed soil, vegetation, or paved area.
- Do not hose down pollutants from any area to the ground or ditches, but rather to a treatment system. (*All storm drains in the upper sheds and packing areas are directed to the treatment lagoons*).

Operational Source Control BMPs for Dust Control at Disturbed Land Areas and Unpaved Roadways and Parking Lots:

- Sprinkle or wet down soil or dust with water as long as it does not result in a wastewater discharge.
- Apply stormwater containment to prevent the conveyance of stormwater TSS into storm drains or receiving waters.
- Consult with the Ecology Regional Office in your area on discharge permit requirements if the dust suppression process results in a wastewater discharge to the ground, ground water, storm drain, or surface water.

Operational Source Control BMPs for Manufacturing Activities - Outside:

- Alter the activity by eliminating or minimizing the contamination of stormwater.
- Enclose the activity. If possible, enclose the manufacturing activity in a building.
- Cover the activity and connect floor drains to the storm system (*upper area, which goes to the treatment ponds*). Berm or slope the floor as needed to prevent drainage of pollutants to outside areas. (Figure 2.7)
- Isolate and segregate pollutants as feasible. Convey the segregated pollutants to the process treatment or a dead-end sump depending on available methods and applicable permit requirements.

Operational Source Control BMPs for Soil Erosion and Sediment Control at Industrial Sites:

- Cover Practice Options:
 - Vegetative cover such as grass, trees, shrubs, on erodible soil areas; or,
 - Covering with mats such as clear plastic, jute, synthetic fiber; and/or,
 - Preservation of natural vegetation including grass, trees, shrubs, and vines,
- Structural Practice Options:
 - Vegetated swale, dike, silt fence, check dam, gravel filter berm, sedimentation basin, and proper grading.

Operational Source Control BMPs for Storage or Transfer (Outside) of Solid Raw Materials, By-Products, or Finished Products:

- Do not hose down the contained stockpile area to a storm drain or a conveyance to a storm drain or to a receiving water.

c) **Preventive Maintenance:**

This SWPPP includes BMPs to inspect and maintain the stormwater drainage and treatment systems, plant equipment, and other systems that could fail and result in contamination of stormwater. This section will include the schedule/frequency for completing each maintenance task.

Preventive Maintenance:

- Clean catch basins when the depth of debris reaches 60% of the sump depth. In addition, the Permittee must keep the debris surface at least 6 inches below the outlet pipe.
- Inspect all equipment and vehicles during monthly site inspections for leaking fluids such as oil, antifreeze, etc. Take leaking equipment and vehicles out of service or prevent leaks from spilling on the ground until repaired.
- Immediately clean up spills and leaks (e.g., using absorbents, vacuuming, etc.) to prevent the discharge of pollutants.
- Special Condition 7B. of the NPDES permit requires the SWPPP to include the “applicable” Preventative Maintenance Operational and Source Control BMPs listed in Ecology’s SWMMs, or other guidance documents as mandatory.

Operational Source Control BMPs for Maintenance of Public and Private Utility Corridors and Facilities:

- Within utility corridors, consider preparing maintenance procedures and an implementation schedule that provides for a vegetative, gravel, or equivalent cover that minimizes bare or thinly vegetated ground surfaces within the corridor, to prevent the erosion of soil.
- Provide maintenance practices to prevent stormwater from accumulating and draining across and/or onto roadways. Stormwater should be conveyed through roadside ditches and culverts. The road should be crowned, out sloped, water barred or otherwise left in a condition not conducive to erosion. Appropriately maintaining grassy roadside ditches discharging to surface waters is an effective way of removing some pollutants associated with sediments carried by stormwater.
- Maintain ditches and culverts at an appropriate frequency to ensure that plugging and flooding across the roadbed, with resulting overflow erosion, does not occur.

Operational Source Control BMPs for Maintenance of Roadside Ditches:

- Inspect roadside ditches regularly, as needed, to identify sediment accumulations and localized erosion.
- Clean ditches on a regular basis, as needed. Ditches should be kept free of rubbish and debris.
- Vegetation in ditches often prevents erosion and cleanses runoff waters. Remove vegetation only when flow is blocked or excess sediments have accumulated. Conduct ditch maintenance (seeding, fertilizer application, harvesting) in late spring and/or early fall, where possible. This allows vegetative cover to be re-established by the next wet season thereby minimizing erosion of the ditch as well as making the ditch effective as a biofilter.

- In the area between the edge of the pavement and the bottom of the ditch, commonly known as the “bare earth zone,” use grass vegetation, wherever possible. Vegetation should be established from the edge of the pavement if possible, or at least from the top of the slope of the ditch.
- Ditch cleanings are not to be left on the roadway surfaces. Sweep dirt and debris remaining on the pavement at the completion of ditch cleaning operations.
- Roadside ditch cleanings, not contaminated by spills or other releases and not associated with a stormwater treatment system such as a bioswale, may be screened to remove litter and separated into soil and vegetative matter (leaves, grass, needles, branches, etc.). The soil fraction may be handled as ‘clean soils’ and the vegetative matter can be composted or disposed of in a municipal waste landfill.
- Roadside ditch cleanings contaminated by spills or other releases known or suspected to contain dangerous waste must be handled following the Dangerous Waste Regulations (Chapter 173-303 WAC) unless testing determines it is not dangerous waste.
- Examine culverts on a regular basis for scour or sedimentation at the inlet and outlet, and repair as necessary. Give priority to those culverts conveying perennial and/or salmon-bearing streams and culverts near streams in areas of high sediment load, such as those near subdivisions during construction.

Operational Source Control BMPs for Maintenance of Stormwater Drainage and Treatment Systems:

- Inspect and clean treatment BMPs, conveyance systems, and catch basins as needed, and determine whether improvements in O & M are needed.
- Promptly repair any deterioration threatening the structural integrity of the facilities. These include replacement of clean-out gates, catch basin lids, and rock in emergency spillways.
- Ensure that storm sewer capacities are not exceeded and that heavy sediment discharges to the sewer system are prevented.
- Regularly remove debris and sludge from BMPs used for peak-rate control, treatment, etc. and discharge to a sanitary sewer if approved by the sewer authority, or truck to a local or state government approved disposal site.
- Clean catch basins when the depth of deposits reaches 60 percent of the sump depth as measured from the bottom of basin to the invert of the lowest pipe into or out of the basin. However, in no case should there be less than six inches clearance from the debris surface to the invert of the lowest pipe. Some catch basins (for example, WSDOT Type 1L basins) may have as little as 12 inches sediment storage below the invert. These catch basins will need more frequent inspection and cleaning to prevent scouring. Where these catch basins are part of a stormwater collection and treatment system, the system owner/operator may choose to concentrate maintenance efforts on downstream control devices as part of a systems approach.
- Clean woody debris in a catch basin as frequently as needed to ensure proper operation of the catch basin.
- Post warning signs; “Dump No Waste - Drains to Ground Water,” “Streams,” “Lakes,” or emboss on or adjacent to all storm drain inlets where practical.
- Disposal of sediments and liquids from the catch basins must comply with “Recommendations for Management of Street Wastes”.

Spill Prevention and Emergency Cleanup:

- Store all chemical liquids, fluids, and petroleum products, on an impervious surface that is surrounded with a containment berm or dike that is capable of containing 10% of the total enclosed tank volume or 110% of the volume contained in the largest tank, whichever is greater.
- Prevent precipitation from accumulating in containment areas with a roof or equivalent structure or include a written plan on how it will manage and dispose of accumulated water if a containment area cover is not practical.
- Locate spill kits within 25 feet of all stationary fueling stations, fuel transfer stations, and mobile fueling units. At a minimum, spill kits shall include:
 - Oil absorbents capable of absorbing 15 gallons of fuel.
 - A storm drain plug or cover kit.
 - A non-water containment boom, a minimum of 10 feet in length with a 12-gallon absorbent capacity.
 - A non-metallic shovel.
 - Two five-gallon buckets with lids.
- Do not lock shut-off fueling nozzles in the open position. Do not “top off” tanks being refueled.
- Block, plug or cover storm drains that receive runoff from areas where fueling, during fueling.
- Use drip pans or equivalent containment measures during all petroleum transfer operations.
- Locate materials, equipment, and activities so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas).
- Use drip pans and absorbents under or around leaky vehicles and equipment or store indoors where feasible. Drain fluids from equipment and vehicles prior to on-site storage or disposal.
- Maintain a spill log that includes the following information for chemical and petroleum spills: date, time, amount, location, and reason for spill; date/time clean-up completed, notifications made and staff involved.
- Special Condition 7.B. of the NPDES Permit requires the SWPPP to include the “applicable” Spill Prevention Operational and Source Control BMPs listed in Ecology’s SWMMs, or other guidance documents as mandatory.

Operational Source Control BMPs for Spills of Oil and Hazardous Substances:

- Prepare an Emergency Spill Control Plan (SCP), which includes:
 - A description of the facility including the owner's name and address;
 - The nature of the activity at the facility;
 - The general types of chemicals used or stored at the facility;
 - A site plan showing the location of storage areas for chemicals, the locations of storm drains, the areas draining to them, and the location and description of any devices to stop spills from leaving the site such as positive control valves;
 - Cleanup procedures;

- Notification procedures to be used in the event of a spill, such as notifying key personnel. Agencies such as Ecology, local fire department, Washington State Patrol, and the local Sewer Authority, shall be notified;
- The name of the designated person with overall spill cleanup and notification responsibility;
- Train key personnel in the implementation of the Emergency SCP. Prepare a summary of the plan and post it at appropriate points in the building, identifying the spill cleanup coordinators, location of cleanup kits, and phone numbers of regulatory agencies to be contacted in the event of a spill;
- Update the SCP regularly;
- Immediately notify Ecology and the local Sewer Authority if a spill may reach sanitary or storm sewers, ground water, or surface water, in accordance with federal and Ecology spill reporting requirements;
- Immediately clean up spills. Do not use emulsifiers for cleanup unless an appropriate disposal method for the resulting oily wastewater is implemented. Absorbent material shall not be washed down a floor drain or storm sewer; and,
- Locate emergency spill containment and cleanup kit(s) in high potential spill areas. The contents of the kit shall be appropriate for the type and quantities of chemical liquids stored at the facility.

Operational Source Control BMPs for Storage of Liquid, Food Waste, or Dangerous Waste Containers:

- Place tight-fitting lids on all containers.
- Place drip pans beneath all mounted container taps and at all potential drip and spill locations during filling and unloading of containers.
- Inspect container storage areas regularly for corrosion, structural failure, spills, leaks, overfills, and failure of piping systems. Check containers daily for leaks/spills. Replace containers, and replace and tighten bungs in drums as needed.
- Drums stored in an area where unauthorized persons may gain access must be secured in a manner that prevents accidental spillage, pilferage, or any unauthorized use.
- If the material is a Dangerous Waste, the business owner must comply with any additional Ecology requirements as required.
- Storage of reactive, ignitable, or flammable liquids must comply with the Uniform Fire Code.
- Cover dumpsters, or keep them under cover such as a lean-to, to prevent the entry of stormwater. Replace or repair leaking garbage dumpsters.
- Drain dumpsters and/or dumpster pads to sanitary sewer. Keep dumpster lids closed. Install waterproof liners.

Operational Source Control BMPs for Fueling At Dedicated Stations:

- Prepare an emergency spill response and cleanup plan (per BMPs for Spills of Oil and Hazardous Substances) and have designated trained person(s) available either on site or on call at all times to promptly and properly implement that plan and immediately cleanup all spills. Keep suitable cleanup materials, such as dry adsorbent materials, on site to allow prompt cleanup of a spill.
- Train employees on the proper use of fuel dispensers. Post signs in accordance with the Uniform Fire Code (UFC). Post “No Topping Off” signs (topping off gas tanks causes spillage and vents gas fumes to the air). Make sure that the automatic shutoff on the fuel nozzle is functioning properly.
- The person conducting the fuel transfer must be present at the fueling pump during fuel transfer, particularly at unattended or self-serve stations.
- Keep drained oil filters in a suitable container or drum.

Operational Source Control BMPs for Maintenance and Repair of Vehicles and Equipment:

- Inspect for leaks all incoming vehicles, parts, and equipment stored temporarily outside.
- Use drip pans or containers under parts or vehicles that drip or that are likely to drip liquids, such as during dismantling of liquid containing parts or removal or transfer of liquids.
- Remove batteries and liquids from vehicles and equipment in designated areas designed to prevent stormwater contamination. Store cracked batteries in a covered non-leaking secondary containment system.
- Empty oil and fuel filters before disposal. Provide for proper disposal of waste oil and fuel.
- Do not pour/convey washwater, liquid waste, or other pollutant into storm drains or to surface water. Check with the local sanitary sewer authority for approval to convey to a sanitary sewer.
- Do not connect maintenance and repair shop floor drains to storm drains or to surface water. To allow for snowmelt during the winter a drainage trench with a sump for particulate collection can be installed and used only for draining the snowmelt and not for discharging any vehicular or shop pollutants.



Food Safety Manual

Document Name:

Document Number:

Revision Number:

Revision Date:

**Spill Organizational
Responsibility**

SOP #2.03

2

12/08/2021

Objective

To ensure that personnel are aware of their duties for Spill Prevention, Control and Cleanup. All members will be trained annually.

Management/Emergency Coordinator: Michael Hughes (360)661-5027

Spill Cleanup Company: Clean Harbors 800-645-8265

Production Manager and

Retention Pond: Jose Velazquez (360)770-2176 alt: Juan Ortiz (360)840-5407

Oversees all spill incidents. Notifies Management of all spills. Contacts cleanup company and/or emergency responders as necessary. Oversees retention pond discharge and inspections. Inspections are done on days of discharging.

Chemical Storage: Juan Ortiz alt: Marcos Garcia

Keeps inventory of all chemicals. Daily checks for spill/leaks. Check containers for corrosion. Verify barrels in use are secured in place. Check catch basins and clean if needed. Use spill materials (booms, floor dry and/or pads) to absorb any spills. Restock spill materials. Report all spill/ leaks to production manager.

Shop and Fuel Room: Hugo Salazar alt: Jesus Torres

Daily checks for spills/leaks. Check catch basin and clean if needed. Inspect containers for corrosion, damage, leaks and that they are secured in place. Use spill materials (booms, floor dry and/or pads) to absorb any spills. Restock spill materials. Report all spills/ leaks to production manager.

Parking Lots and

Surrounding Areas: German Garcia alt: Juan Ortiz

Daily checks for spills/leaks from trucks/equipment. Place drip tray under leaking trucks/equipment and report to production manager for fix and/or removal. Use spill materials (booms, floor dry and/or pads) to absorb any spills.

Sanitation Crew:

Report all spills/ leaks to the production manager. Use spill materials (booms, floor dry and/or pads) to absorb any spills.

Sanitation Crew

German Garcia

Jose Ochoa

Juan Ortiz

Enrique Duran Valdez

Jose Gutierrez

Gabriel Rodriguez

Hugo Salazar

Cristobal Hernandez

Marcos Garcia

Leonardo Hernandez

Jesus Torres

CHEMICAL/FUEL SPILL

The following are the locations of:

Spill Containment and Security Equipment: Chemical Room, Fuel Room and Shop

Personal Protective Equipment (PPE): Chemical Room and Shop

Safety Data Sheets (SDS): Chemical Room and Office

When a Large Chemical/Fuel Spill has occurred:

- Immediately notify the Plant Manager and Emergency Coordinator.
- If toxic fumes are present, secure the area (with caution tapes or cones) to prevent other personnel from entering.
- Evacuate building as necessary
- Do not attempt to clean the spill unless trained to do so.
- Large spills must be handled in a safe manner, while wearing the proper PPE.
- Contain the spill with available equipment (pads, booms, absorbent powder, etc.). Place booms around drains.
- Attend to injured personnel and call the medical emergency number, if required.
- Call a local spill cleanup company or the Fire Department (if arrangement has been made) to perform a large chemical spill cleanup.
- Reference SDS for proper cleanup and disposal.

Name of Spill Cleanup Company: Clean Harbors

Phone Number: 800-645-8265

When a Small Chemical/Fuel Spill has occurred:

- Notify the Emergency Coordinator and/or supervisor.
- If toxic fumes are present, secure the area (with caution tapes or cones) to prevent other personnel from entering.
- Contain the spill with available equipment (pads, booms, absorbent powder, etc.). Place booms around drains.
- Small spills must be handled in a safe manner, while wearing the proper PPE.
- Reference SDS for proper cleanup and disposal.

Chemical Index

Updated 10/12/2021

Product	Manufacturer
Citric Acid 50%	Cascade Columbia
Contrac All-Weather Blox	Bell Laboratories
D-Foam	Wesmar Company, Inc.
FS Amine Z	Zep Inc.
Keeper Professional	Bio-Cide
Morado Super Cleaner	Zep Inc.
Per-Ox (AFCO 4325)	Alex C. Ferguson, LLC.
Per-Ox Extreme (AFCO 4367)	Alex C. Ferguson, LLC
Peroxy-Serve 5	Zep Inc.
Peroxy-Serve 15	Zep Inc.
Ployfloc 820	Wesmar Company, Inc.
Sodium Hypochlorite Solution	Cascade Columbia
Spud Guard 2 EC	Pin Nip- 1,4Group
Diesel Fuel	CHS Inc.
Unleaded Gasoline	CHS Inc.
Fleetguard Antifreeze	Cummins Filtration
SAE 15W-40 Motor Oil	Viscosity
Ultraction Hydraulic Fluid	Viscosity
Propane	CHS Inc.

SPILL LOG					
*Contact Jose for all spills 360-770-2176					
DATE	TIME	WHAT SPILLED	WHERE IS SPILL	QUANTITY SPILLED	WHO CLEANED SPILL

Employee Training

Per Section 7.B,3a (iv) of the site's NPDES permit, this SWPP is to address the following items in this section:

- The content of the training:
 - An overview of what is in the SWPPP.
 - How employees make a difference in complying with the SWPPP and preventing contamination of stormwater.
 - Spill response procedures, good housekeeping, maintenance requirements, and material management practices.
- How the Permittee will conduct training.
- The frequency/schedule of training. The Permittee shall train employees annually, at a minimum.
- A log of the dates on which specific employees received training.

The following pages are representative of the training content. Training is performed annually including training for sanitation, spill response, and familiarity with the spill kits.

Spill Kits are located:

- In the shop
- In chemical storage
- In the shipping office



Food Safety Manual

Document Name:
Document Number:
Revision Number:
Revision Date:

Meeting/Training Documentation
SOP #10.09
1
05/31/12

Date: 12/8/21 Trainer: Aaron / Jose V.
Name Title

Type of Training: ☒ Food Safety ☒ Job Specific
☒ Farm Safety ☒ Training/Re-Training
☒ Other: Sanitation

Subject(s) Covered (Attach Outline):

SOP #7.02 Master Cleaning Sanitation Schedule
SOP #7.03 Cleaning/SSOP (Facility walk through going over each area)
SOP #7.07 Amine-Z Testing, SOP #7.10 Chlorine Testing
SOP #7.06 Chemical Safety, Storage & Record Keeping Info
SOP #7.05 Clean in Place Procedures
PPE

Spill Prevention & Cleanup

By signing below, I verify that I have read, or been read to, the subject(s) covered. I understand, and acknowledge all information related to the above meeting.

ATJ
12/8/21

Emp #	Name	Signature
#4002	Garcia, German	<i>German Garcia</i>
#4007	Ochoa, Jose	<i>Jose Ochoa</i>
#4008	Ortiz, Juan J.	<i>Juan Ortiz</i>
#4212	Duran Valdez, Enrique	<i>Enrique</i>
#4004	Gutierrez Saldivar, Jose	<i>J. Gutierrez Saldivar</i>
#4011	Rodriguez, Gabriel	<i>GABRIEL RODRIGUEZ</i>
#4012	Salazar B., Hugo	<i>Hugo Salazar B.</i>
#4005	Hernandez, Cristobal	<i>Cristobal Hernandez</i>
#4003	Garcia, Marcos C	<i>Marcos Garcia</i>
#4006	Hernandez, Leonardo	<i>Leonardo Hernandez</i>
#4017	Torres, Jesus	<i>Juan</i>

SPILL RESPONSE KIT USAGE PROCEDURE

FOR ALL
LAND BASED
SPILLS



WHEN A LIQUID SPILL OCCURS:

- If there is a fire or medical attention is needed, contact your supervisor or call public safety at 911. Warn all people nearby and evacuate area as necessary.
 - Evaluate the toxicity, flammability and other hazardous properties of the liquid from a safe distance. If spill is flammable or volatile, **IMMEDIATELY** warn everyone, control all potential ignition sources and ventilate the area.
 - Stop the spill at the source (*repair leaks, turn off source, plug or patch source*).
 - Follow procedures below to contain and clean up the spilled liquid. Use the proper level of Personal Protection Equipment (PPE) based on the characteristic of the liquid that has been spilled.
- Only properly trained and certified individuals should attempt the cleanup of hazardous, volatile, toxic or unknown liquids.*

STEP 1

Identify spilled liquid and verify compatibility of spill clean up material with the liquid.

WVK Universal Spill Kits are safe to use on all liquids except (H-F). Do not use if liquid is or contains (H-F) hydrofluoric acid.



STEP 2

Open spill kit and put on appropriate Personal Protective Equipment (PPE) before proceeding. At a minimum you must use chemical resistant gloves and goggles.



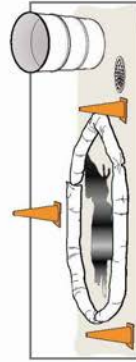
STEP 3

Immediately place socks around the spill to contain the liquid from spreading. Liquids must be prevented from entering floor drains or sewers.



STEP 4

Cordon off spill area to prevent guest or other employees from slipping on the liquids.



STEP 5

Cover the spill with sorbent pads, pillows and/or **Super Sorbent** particulate to reduce vapors and soak up the liquid.



STEP 6

Remove saturated sorbent media and place in temporary disposal bags and label.

If liquid remains, place new pads or pillows on the spill to soak up any remaining liquids. Place all pads, pillows and containment socks into temporary disposal bags provided.



STEP 7

Re-cover spill area with Safety Sorbent and work in with stiff broom.

Sweep up **Safety Sorbent** and place in temporary disposal bags. Repeat this procedure if floor surface is wet or damp. Floor should be completely dry when clean up is finished. Remove PPE and place in disposal bags.



Immediately replace used spill kit with a new one or refill used container for future emergency use.
Used materials and saturated sorbents must be disposed of in accordance with local, state and Federal regulations.

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SPILL RESPONSE CLEAN-UP CONTAINMENT



Inspections, Reporting, and Recordkeeping

The purpose of this section is to:

- Identify facility personnel who will inspect designated equipment and facility areas as required in Condition S7.B.
- Contain a visual inspection report or check list that includes all items required by Condition S7.B. (*the Permit lists process/storage areas, silos, parking areas*)
- Provide a tracking or follow-up procedure to ensure that a report is prepared and any appropriate action taken in response to visual inspections.
- Define how the Permittee will comply with signature requirements and records retention identified in Special Condition S7.B.a(v), Inspections and Recordkeeping.

S458 BMPs for Record Keeping is a good guide.

See the applicable permit for specific record-keeping requirements and retention schedules for the following reports. At a minimum, retain the following reports for five years:

Inspection reports which should include:

- Time and date of the inspection
- Locations inspected
- Statement on status of compliance with the permit
- Summary report of any remediation activities required
- Name, title, and signature of person conducting the inspection

Reports on spills of oil or hazardous substances in greater than Reportable Quantities (Code of Federal Regulations Title 40 Parts 302.4 and 117). Report spills of the following: antifreeze, oil, gasoline, or diesel fuel, that cause:

- A violation of the State of Washington's Water Quality Standards.
- A film or sheen upon or discoloration of the waters of the State or adjoining shorelines.
- A sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

To report a spill or to determine if a spill is a substance of a Reportable Quantity, call the Ecology regional office and ask for an oil spill operations or a dangerous waste specialist:

Northwest Region: (206) 594-0000

Maintain records of all related pollutant control and pollutant generating activities such as training, materials purchased, material use and disposal, maintenance performed, etc.

The following pages include example inspection logs for each of the areas listed in the site's NPDES permit.

These logs will be completed, SIGNED, and retained either in this manual or a designated location referenced in this manual



Section Title: Monitoring Logs		
Document Title: Pre-Operational Daily Area Inspection Checklist: Parking Lots & Surroundings/Garbage Disposal		
Document Number: 10.01A		
Revision Number: 4	Revision Date: 10/13/2021	Page 1 of 1

Write "A" if condition is acceptable. Write "R" if condition is rejected AND record corrective actions taken, by whom and the date and time correction was completed. *Escriba la letra "A" cuando la condición sea aceptable. Escriba la letra "R" si la condición es rechazada y registre las acciones correctivas tomadas, especificando, quién la realiza, la fecha y el tiempo en que la acción correctiva va a ser completada.*

[Yea
Month: [Month] Year: r]

Packing Lots & Surroundings/Garbage Disposal Area Daily Area Inspection Checklist	Sun Dom	Mon Lun	Tue Mar	Wed Mie	Thu Jue	Fri Vie	Sat Sab
Date of Inspection Fecha de Inspección	30	31	1	2	3	4	5
Parking Lot Near Facility Free of Trash and Potholes. <i>Estacionamiento cercano a la instalación libre de basura y baches.</i>							
Check for leaks from trucks/Equip. Place drip tray under any leaks. Use spill mats to absorb.							
Grounds Near Facility Free of Trash and Cigarette Butts, etc. <i>Suelos cercanos a la instalación libre de basura y colillas de cigarro, etc.</i>							
Dumpster Area Free of Trash <i>Área de Contenedor libre de basura</i>							
Dumpster Intact and Not Leaking/covered when not in use. <i>Contenedor Intacto y sin fugas/ tapado cuando no está en uso.</i>							
Drainage system clean and free of debris <i>Sistema de drenaje limpio y libre de residuos.</i>							
No Standing water. <i>No hay agua estancada.</i>							
Rodent Control Devices: no apparent rodent activity and fastened to wall or ground. <i>Dispositivos de control de roedores: Sin actividad aparente y sujetos al suelo o a la pared.</i>							
Area free of bird or rodent activity. <i>Área libre de actividad de pájaros o roedores.</i>							
All signage is in place. <i>Todas las señales en su lugar.</i>							
All hoses, when not in use should be rolled up and hung properly. <i>Todas las mangueras cuando no se usen deben estar debidamente enrolladas y colgadas.</i>							
Smoking containers clean. <i>Deposito de cigarillos limpios.</i>							
Trash cans emptied and cleaned. <i>Basureros vacíos y limpios.</i>							
Date Fecha	Corrective Action Taken for Rejected Conditions Acción Correctiva Tomada para Condiciones Rechazadas			Corrected By Corregido Por	Date Fecha	Time Hora	

I have observed completion of the items checked above. *He observado la finalización de los puntos chequeados arriba.*

Signature _____ <i>Firma</i>	German Garcia Printed Name <i>Nombre</i>	Date _____ <i>Fecha</i>
Reviewed By _____ Revisado Por Signature <i>Firma</i>	Aaron Taylor Printed Name <i>Nombre</i>	Date _____ <i>Fecha</i>



Section Title: Monitoring Logs		
Document Title: Pre-Operational Daily Area Inspection Checklist: Sanitation Supply Storage Rooms		
Document Number: 10.01F		
Revision Number: 3	Revision Date: 10/12/2021	Page 1 of 1

Write "A" if condition is acceptable. Write "R" if condition is rejected AND record corrective actions taken, by whom and the date and time correction was completed. *Escriba la letra "A" cuando la condición sea aceptable. Escriba la letra "R" si la condición es rechazada y registre las acciones correctivas tomadas, especificando, quién la realiza, la fecha y el tiempo en que la acción correctiva va a ser completada.*

[Yea
 Month: [Month] Year: [r]

Sanitation Supply Storage Rooms Daily Area Inspection Checklist	Sun Dom	Mon Lun	Tue Mar	Wed Mie	Thu Jue	Fri Vie	Sat Sab
Date of Inspection Fecha de Inspección	30	31	1	2	3	4	5
All lighting properly illuminating and shields intact. All shields free of debris and insect fragments. <i>Todas las luces iluminan correctamente y protecciones intactas. Todas las protecciones están libres de residuos y restos de insectos.</i>							
Floors free of product debris and trash. <i>Pisos libres de residuos de producto y basura.</i>							
All Sanitation Equipment cleaned and properly stored. <i>Todo el equipo de sanitización es limpiado y almacenado correctamente.</i>							
Check for leaks/ spills. Check catch basins and clean if needed.							
Spill containment equipment: Check and restock booms, floor dry and pads.							
No containers used for Produce contain items used for misc. storage. <i>Los recipientes utilizados para Producto no contienen elementos de almacenamiento misceláneo.</i>							
All signage is in place for color coding of cleaning supplies. <i>Todas las señalética están en su lugar con código de colores de artículos de limpieza</i>							
Insure properly color-coded cleaning equipment are separated well enough to prevent any cross-contamination issues. Insure that this equipment be mounted on the wall or placed within clean and dry buckets (i.e., not placed directly on the floor) <i>Asegúrese que los equipos de limpieza estén separados por códigos de color lo suficientemente bien como para evitar una contaminación cruzada. Asegúrese que los equipos estén colgados en la pared o colocados en baldes limpios y secos. (No estén tocando directamente el suelo)</i>							

Date Fecha	Corrective Action Taken for Rejected Conditions Acción Correctiva Tomada para Condiciones Rechazadas	Corrected By Corregido Por	Date Fecha	Time Hora

I have observed completion of the items checked above. *He observado la finalización de los puntos chequeados arriba.*

Signature _____ <i>Firma</i>	Juan Ortiz Printed Name <i>Nombre</i>	Date _____ <i>Fecha</i>
Reviewed By _____ Revisado Por Signature <i>Firma</i>	Aaron Taylor Printed Name <i>Nombre</i>	Date _____ <i>Fecha</i>



Section Title: Monitoring Logs		
Document Title: Pre-Operational Daily Area Inspection Checklist: Maintenance Shop		
Document Number: 10.01J		
Revision Number: 4	Revision Date: 10/12/2021	Page 1 of 1

Write "A" if condition is acceptable. Write "R" if condition is rejected AND record corrective actions taken, by whom and the date and time correction was completed. *Escriba la letra "A" cuando la condición sea aceptable. Escriba la letra "R" si la condición es rechazada y registre las acciones correctivas tomadas, especificando, quién la realiza, la fecha y el tiempo en que la acción correctiva va a ser completada.*

[Yea
 Month: [Month] Year: [Y]

Maintenance Shop Daily Area Inspection Checklist	Sun Dom	Mon Lun	Tue Mar	Wed Mie	Thu Jue	Fri Vie	Sat Sab
Date of Inspection Fecha de Inspección	30	31	1	2	3	4	5
All lighting properly illuminating and shields intact. All shields free of debris and insect fragments. <i>Todas las luces iluminan correctamente y protecciones intactas. Todas las protecciones están libres de residuos y restos de insectos.</i>							
Floors cleaned and free of trash. <i>Pisos limpios y libres de basura.</i>							
Walls ceilings and overhead lights and pipelines cleaned and free of debris, mold and spider webs. <i>Paredes, techos, luces y tuberías superiores limpias y libres de residuos, hongos y telarañas.</i>							
Employee's belongings properly stored. <i>Pertenencias de los trabajadores guardados correctamente.</i>							
All tools free of oil or grease. <i>Todas las herramientas libres de aceite y grasa.</i>							
No containers used for Produce contain items used for misc. storage. <i>Los recipientes utilizados para Productos no contienen elementos de almacenamiento misceláneo.</i>							
Trash cans empty, clean and lined. <i>Basureros vacíos, limpios y alineados.</i>							
No metal filings on floor adjacent to grinding or drilling units. <i>No hay limaduras metálicas en el suelo cerca de unidades para moler o perforar.</i>							
Fuel Room: Check for leaks/ spills. Check catch basin and clean if needed.							
Spill containment Equipment: Check and restock Booms floor dry and pads.							
All signage is in place. <i>Toda la señalética en su lugar.</i>							
First aid kit in adequate supply. <i>Botiquín primeros auxilios abastecido adecuadamente.</i>							

Date Fecha	Corrective Action Taken for Rejected Conditions Acción Correctiva Tomada para Condiciones Rechazadas	Corrected By Corregido Por	Date Fecha	Time Hora

I have observed completion of the items checked above. He observado la finalización de los puntos chequeados arriba.

Signature _____ Firma	Hugo Salazar Printed Name <i>Nombre</i>	Date _____ Fecha
Reviewed By _____ Revisado Por Signature <i>Firma</i>	Aaron Taylor Printed Name <i>Nombre</i>	Date _____ Fecha

3.2. Structural Source Control BMPs

Mandatory Structural Source Control BMPs required by Condition S7.B. of the site's NPDES Permit:

- Use grading, berming, or curbing to prevent runoff of contaminated flows and divert run-on away from manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations).
- Perform all cleaning operations indoors, under cover, or in bermed areas that prevent stormwater runoff and run-on and also that capture any overspray.
- Ensure that all washwater drains to a collection system that directs the washwater to further treatment or storage and not to the stormwater drainage system.
- Special Condition 7B. of the NPDES Permit requires the SWPPP to include the “applicable” Structural Source Control BMPs listed in Ecology’s SWMMs, or other guidance documents as mandatory. These include:

Structural Source Control BMPs for Loading and Unloading Areas for Liquid or Solid Material:

All Loading/ Unloading Areas:

- Consistent with Uniform Fire Code requirements (Appendix IV-D R.2) and to the extent practicable, conduct unloading or loading of solids and liquids in a manufacturing building, under a roof, or lean-to, or other appropriate cover.
- Berm, dike, and/or slope the loading/unloading area to prevent run-on of stormwater and to prevent the runoff or loss of any spilled material from the area.
- Large loading areas frequently are not curbed. As a result, stormwater passes directly off the paved surface into surface water. Place curbs along the edge, or slope the edge such that the stormwater can flow to an internal storm drain system that leads to an approved treatment BMP.
- Pave and slope loading/unloading areas to prevent the pooling of water. The use of catch basins and drain lines within the interior of the paved area must be minimized as they will frequently be covered by material, or they should be placed in designated “alleyways” that are not covered by material, containers or equipment.

Loading and Unloading Docks:

- Install/maintain overhangs, or door skirts that enclose the trailer end to prevent contact with rainwater.
- Design the loading/unloading area with berms, sloping, etc. to prevent the run-on of stormwater.
- Retain on-site the necessary materials for rapid cleanup of spills.

Tanker Truck Transfer Areas to Above/Below-Ground Storage Tanks:

- Pave the area on which the transfer takes place. If any transferred liquid, such as gasoline, is reactive with asphalt pave the area with Portland cement concrete.

Slope, berm, or dike the transfer area to a dead-end sump, spill containment sump, a spill control (SC) oil/water separator, or other spill control device. The minimum spill retention time should

be 15 minutes at the greater flow rate of the highest fuel dispenser nozzle through-put rate, or the peak flow rate of the 6-month, 24-hour storm event over the surface of the containment pad, whichever is greater. The volume of the spill containment sump should be a minimum of 50 gallons with an adequate grit sedimentation volume.

Structural Source Control BMPs for Maintenance and Repair of Vehicles and Equipment:

- Conduct all maintenance and repair of vehicles and equipment in a building, or other covered impervious containment area that is sloped to prevent run-on of uncontaminated stormwater and runoff of contaminated stormwater. *Regular scheduled maintenance should be completed offsite for Hughes Farms.*
- Park large mobile equipment in a designated contained area.

The Structural Source Control BMPs for the following are also required: Fueling at Dedicated Stations; Washing and Steam Cleaning Vehicle/Equipment/Building Structures; Loading and Unloading Areas for Liquid or Solid Material; Storage of Liquids in Permanent Above-Ground Tanks; Storage of Liquid, Food Waste, or Dangerous Waste Containers; Storage or Transfer (Outside) of Solid Raw Materials, By-Products, or Finished Products; Spills of Oil and Hazardous Substances; Illicit Connections to Storm Drains.

Structural Source Control BMPs for Storage of Liquid, Food Waste, or Dangerous Waste Containers:

- Keep containers with Dangerous Waste, food waste, or other potential pollutant liquids inside a building unless this is impracticable due to site constraints or Uniform Fire Code requirements.
- Store containers in a designated area, which is covered, bermed or diked, paved and impervious in order to contain leaks and spills. The secondary containment shall be sloped to drain into a dead-end sump for the collection of leaks and small spills.
- Place containers mounted for direct removal of a liquid chemical for use by employees inside a containment area. Use a drip pan during liquid transfer.

Structural Source Control BMPs for Storage of Liquids in Permanent Above-ground Tanks:

- Locate permanent tanks in impervious (Portland cement concrete or equivalent) secondary containment surrounded by dike or UL Approved double-walled. The dike must be of sufficient height to provide a containment volume of either 10 percent of the total enclosed tank volume or 110 percent of the volume contained in the largest tank, whichever is greater, or, if a single tank, 110 percent of the volume of that tank.
- Slope the secondary containment to drain to a dead-end sump (optional), or equivalent, for the collection of small spills.
- Include a tank overfill protection system to minimize the risk of spillage during loading.

3.3. Treatment BMPs

Per S7B.3c of the NPDES permit, listed below are the treatment BMPs or structures for this facility. Additional treatment BMPs added over time need to be included in this section.

<u>Structure:</u>	Bio Swale North of Office	
<u>Date of Implementation:</u>		
<u>Discharge Point:</u>	Into Private Ditch	
<u>Area(s) Treated:</u>	Gravel parking and access north of office	
<u>Pollutants Removed:</u>	Sediment,	
<u>Maintenance Requirement(s):</u>		<u>Frequency:</u>
Mow grass, remove leaves, litter, oily materials, re-sod, regrade. Clean spreaders. Remove sediment at head of swale. See Appendix for details.		As needed

<u>Structure:</u>	Bio Swale west of Office	
<u>Date of Implementation:</u>		
<u>Discharge Point:</u>	Into Private Ditch	
<u>Area(s) Treated:</u>	Gravel lot west of office	
<u>Pollutants Removed:</u>	sediment	
<u>Maintenance Requirement(s):</u>		<u>Frequency:</u>
Mow grass, remove leaves, litter, oily materials, re-sod, regrade. Clean spreaders. Remove sediment at head of swale		As needed

<u>Structure:</u>	Filter Strip West of Private Ditch	
<u>Date of Implementation:</u>	2017	
<u>Discharge Point:</u>	Into Private Ditch	
<u>Area(s) Treated:</u>	Gravel lot north and east of potato shed on Farm to Market Road	
<u>Pollutants Removed:</u>	sediment	
<u>Maintenance Requirement(s):</u>		<u>Frequency:</u>
Mow grass, remove leaves, litter, oily materials, re-sod, regrade. Clean level spreader. Remove sediment at spreaders		As needed

<u>Structure:</u>	Infiltration Swale South of Potato Shed
<u>Date of Implementation:</u>	2017
<u>Discharge Point:</u>	Into Private Ditch
<u>Area(s) Treated:</u>	Gravel lot west of office
<u>Pollutants Removed:</u>	sediment
<u>Maintenance Requirement(s):</u>	<u>Frequency:</u>
Conduct removal of accumulated debris/sediment in the trench	Every 6 mons, or As needed

<u>Structure:</u>	Dual Cell Lined Settling Pond
<u>Date of Implementation:</u>	2016
<u>Discharge Point:</u>	Into Private Ditch
<u>Area(s) Treated:</u>	Treats stormwater from paved areas (Primarily for Potato Wash Water)
<u>Pollutants Removed:</u>	sediment
<u>Maintenance Requirement(s):</u>	<u>Frequency:</u>
Conduct removal of accumulated sediment in the pond	As needed

Mandatory Treatment BMPs required by Condition S7B. of the site's NPDES Permit

(See permit included in Appendices)

- Condition S7.B.3.c of the site's NPDES Permit requires permittees to implement Treatment BMPs listed as "applicable" in Ecology's SWMMs, or other approved guidance documents
- The Permittee may omit individual BMPs if site conditions render the BMP unnecessary, infeasible, or the Permittee provides alternative and equally effective BMPs; if the Permittee clearly justifies each BMP omission in the SWPPP
- At a minimum, to omit the treatment BMP, a narrative describing how the Permittee determined the BMP was or was not required is to be include. Below each BMP below is this narrative.

Treatment BMPs from Ecology's Stormwater Management Manual for Western Washington

- **Treatment BMPs for Maintenance and Repair of Vehicles and Equipment.**
Not Required, as regularly scheduled maintenance is NOT to be performed onsite, but at the dedicate maintenance facility for Hughes Farms. Any emergency situation requiring repair on this site should follow the previously listed source BMPs to catch leaks and contain fluids until the equipment is removed.
- **Treatment BMPs for Storage of Liquid, Food Waste, or Dangerous Waste Containers**
Not Required, as any runoff from processes onsite are caught by the existing storm system and floor drains and conveyed to the lagoons for treatment, as listed in the treatment BMPs in Section 3.3.
- **Treatment BMPs for Storage of Liquids in Permanent Above-ground Tanks:**
Not Required, as the only liquid storage above ground in tanks is at the fuel station, which is covered by the previously listed Source Control BMPs including containment, cover, and a dead-end sump.
- **Treatment BMPs for Storage or Transfer (Outside) of Solid Raw Materials, By-Products, or Finished Products:**
Not Required, as transfer of material is performed under cover.

3.4. Erosion and Sediment Control BMPs

This SWPPP describes the erosion and sediment control BMPs necessary to prevent off-site sedimentation and violations of water quality standards. The Permittee shall implement and maintain:

- 1) Sediment control BMPs (vegetated filter strip, bioswales, infiltration swales, as these are permanent sediment control BMPs to minimize sediment loads in stormwater discharges).
- 2) Filtration BMPs to remove solids from catch basins, sumps or other stormwater collection and conveyance system components (*filter socks*).

Definition: Erosion and Sediment Control BMPs means BMPs that are intended to prevent erosion and sedimentation, such as preserving natural vegetation, seeding, mulching and matting, plastic covering, filter fences, and sediment traps and ponds.

<u>Structure:</u>	Bio Swale North of Office
<u>Date of Implementation:</u>	
<u>Discharge Point:</u>	Into Private Ditch
<u>Area(s) Treated:</u>	Gravel parking and access north of office
<u>Pollutants Removed:</u>	Sediment,
<u>Maintenance Requirement(s):</u>	<u>Frequency:</u>
Mow grass, remove leaves, litter, oily materials, re-sod, regrade. Clean spreaders. Remove sediment at head of swale	As needed

<u>Structure:</u>	Bio Swale west of Office
<u>Date of Implementation:</u>	
<u>Discharge Point:</u>	Into Private Ditch
<u>Area(s) Treated:</u>	Gravel lot west of office
<u>Pollutants Removed:</u>	sediment
<u>Maintenance Requirement(s):</u>	<u>Frequency:</u>
Mow grass, remove leaves, litter, oily materials, re-sod, regrade. Clean spreaders. Remove sediment at head of swale	As needed

<u>Structure:</u>	Filter Strip West of Private Ditch
<u>Date of Implementation:</u>	2017
<u>Discharge Point:</u>	Into Private Ditch
<u>Area(s) Treated:</u>	Gravel lot north and east of potato shed on Farm to Market Road
<u>Pollutants Removed:</u>	sediment

<u>Maintenance Requirement(s):</u>	<u>Frequency:</u>
Mow grass, remove leaves, litter, oily materials, re-sod, regrade. Clean level spreader. Remove sediment at spreaders	As needed

<u>Structure:</u>	Infiltration Swale South of Potato Shed
<u>Date of Implementation:</u>	2017
<u>Discharge Point:</u>	Into Private Ditch
<u>Area(s) Treated:</u>	Gravel lot west of office
<u>Pollutants Removed:</u>	sediment

<u>Maintenance Requirement(s):</u>	<u>Frequency:</u>
Conduct removal of accumulated debris/sediment in the trench	Every 6 mons, or As needed

Section 4. Sampling Plan

- 1) **Discharge Location(s).** All points of discharge to surface water are identified in the table below.

Discharge ID	Common description	Latitude (optional)	Longitude (optional)	Discharge Type	Comments
Outfall 001	Outflow from 2 nd lagoon to Private Ditch	48.453651°	-122.442211°	Surface Water	Outfall drains to field ditch
Outfall 002	Outflow from Silo area, south of lagoons	48.453466°	-122.442198°	Surface Water	Outfall to Field Ditch

- 2) **Sampling locations** are identified in the table below. These sampling locations are also shown on the site map.

Discharge ID	Common description	Latitude (optional)	Longitude (optional)	Discharge Type	Comments
Outfall 001	Outflow from 2 nd Pond cell to Private Ditch	48.453655°	-122.442211°	Surface Water	Outfall drains to field ditch
Outfall 002	Outflow from Silo Area, south of lagoons.	48.453466°	-122.442198°	Surface Water	Outfall to Field Ditch

- 3) **Substantially identical outfall exception**

Not Applicable

- 4) **Staff Responsible for Sampling.**

Michael Hughes is responsible for sampling and delivery of sample to Lab (Edge Analytical).

- 5) **Sample Collection and Handling.**

Michael Hughes collects the samples as required in approved sample containers and hand-delivers samples to the lab (Edge Analytical in Burlington, WA)

- 6) **Submitting Sample Results to Ecology.**

Allyson McBride is responsible for the DMR reporting to Ecology.

- The Permittee shall submit sampling data obtained during each reporting period on a Discharge Monitoring Report (DMR) form provided, or otherwise approved, by *Ecology*.
- The first reporting period shall begin on the effective date of permit coverage.
- Upon permit coverage, the Permittee shall ensure that DMRs are received by *Ecology* by the DMR Due Dates below:

Reporting Dates and DMR Due Dates, per S3.A of the NPDES permit

For Monthly: by the 28th day of the following month.

For QUARTERLY:

Reporting Period	Months	DMR Due Date
1 st	January-March	April 28
2 nd	April-June	July 28
3 rd	July-Sept	October 28
4 th	October-December	January 28

- DMRs shall be submitted using *Ecology's* WebDMR system or by mail to the following address:
Department of Ecology
Water Quality Program – Industrial Stormwater
PO Box 47696
Olympia, Washington 98504-7696
- Upon permit coverage, the Permittee shall submit a DMR each reporting period, whether or not the *facility* has discharged *stormwater* from the site.
- If discharge(s) occurred during normal working hours, and during safe conditions; but no sample was collected during the entire quarter, the Permittee shall submit a DMR form indicating “no sample obtained”. If no discharge(s) occurred during the entire quarter or the discharges during the quarter occurred outside normal working hours or during unsafe conditions, the Permittee shall submit a DMR indicating “no discharge”.
- If a Permittee has suspended sampling for a parameter due to consistent attainment, the Permittee shall submit a DMR and indicate that it has achieved Consistent Attainment for that parameter(s).

7) Sampling Parameters.

S2 of the NPDES permit describes the sampling parameters for this site, including effluent limit and monitoring frequency as follows. No benchmarks are given in this permit.

Per S1.A, beginning with the effective date and lasting through the expiration date, the site is authorized to discharge treated wash and stormwater to the ditch as long as it meets the effluent limit below:

Outfall # 001: Compliance point is at the lined secondary settling pond outlet, prior to going into the field ditch	
Parameter	Maximum Daily ^a
Turbidity	25 NTU
^a Maximum daily effluent limit is the highest allowable daily discharge. The daily discharge is the average discharge of a pollutant measured during a calendar day.	

Per S2.A of the NPDES permit for the site. The permittee must monitor in accordance with the following schedule and the requirements specified in Appendix A of the NPDES permit:

Monitoring location:

Outfall 001¹: 48.453651, -122.442211

Outfall 002¹: 48.453466, -122.442198

Parameter	Units	Outfalls ¹	Minimum Sampling Frequency	Sample Type
Sampling Point 001: The lined secondary settling pond outlet, prior to discharge to the ditch.				
Flow	gpd	001	Monthly	Metered
Turbidity	NTU	001	Monthly	Grab
Copper (total)	µg/L	001	Quarterly	Grab
Zinc (total)	µg/L	001	Quarterly	Grab
Escherichia coli (E. coli)	#/100ml	001, 002	Every 2 weeks	Grab
¹ Outfall 001 is defined as the effluent in the discharge line, prior to discharge to the field ditch. Outfall 002 defines the sampling location for stormwater runoff draining from the Silos area, south of the treatment lagoons. No sampling is required when there is no discharge at outfall 001, or no stormwater runoff at outfall 002 from the Silos area. It must be clearly reported in the web-DMR when there is no discharge.				

SECTION 5 SWPPP Certification Form

The Permittee shall use this form to sign and certify that the Stormwater Pollution Prevention Plan (SWPPP) is complete, accurate and in compliance with Conditions S3 and S7 of the NPDES Permit.

- A SWPPP certification form needs to be completed and attached to all SWPPPs.

"I certify under penalty of law that this SWPPP and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate information to determine compliance with the Industrial Stormwater General Permit. Based on my inquiry of the person or persons who are responsible for stormwater management at my facility, this SWPPP is, to the best of my knowledge and belief, true, accurate, and complete, and in full compliance with Permit Conditions S3 and S7, including the correct Best Management Practices from the applicable Stormwater Management Manual. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

David L. Hughes
Operator's Printed Name *

David L. Hughes
Operator's Signature *

President
Title

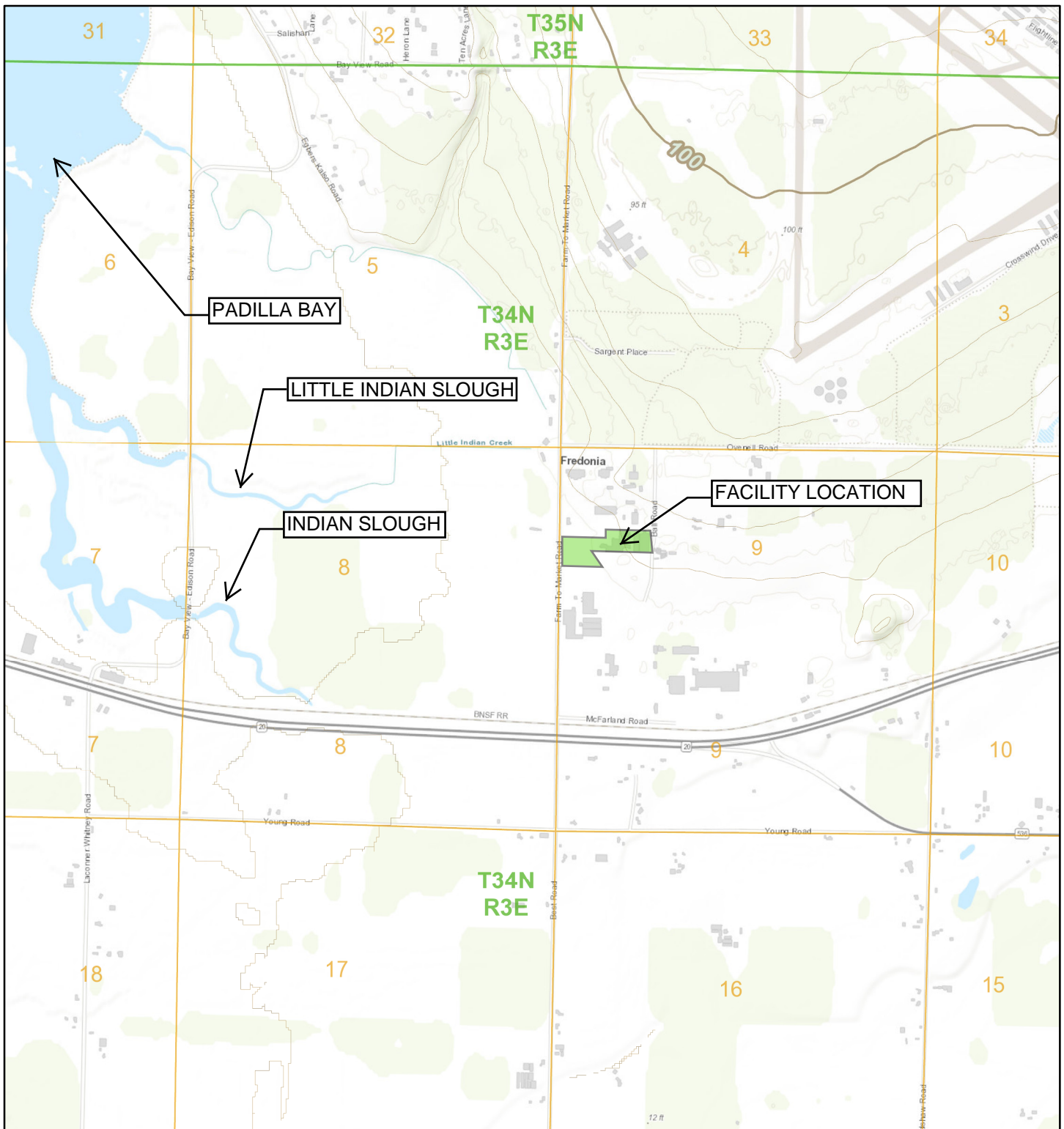
12/17/21
Date

SWPPP Appendices

- Appendix A – General Location Map
- Appendix B – Site Map
- Appendix C – Copy of the NPDES Permit
- Appendix D – Inspection Reports
- Appendix E -- Spill Log
- Appendix F – Training Log
- Appendix G – Full Text of Relevant BMPs with maintenance info

Appendix A. General Location Map

General Location Map

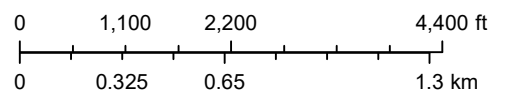


September 30, 2021

Legend

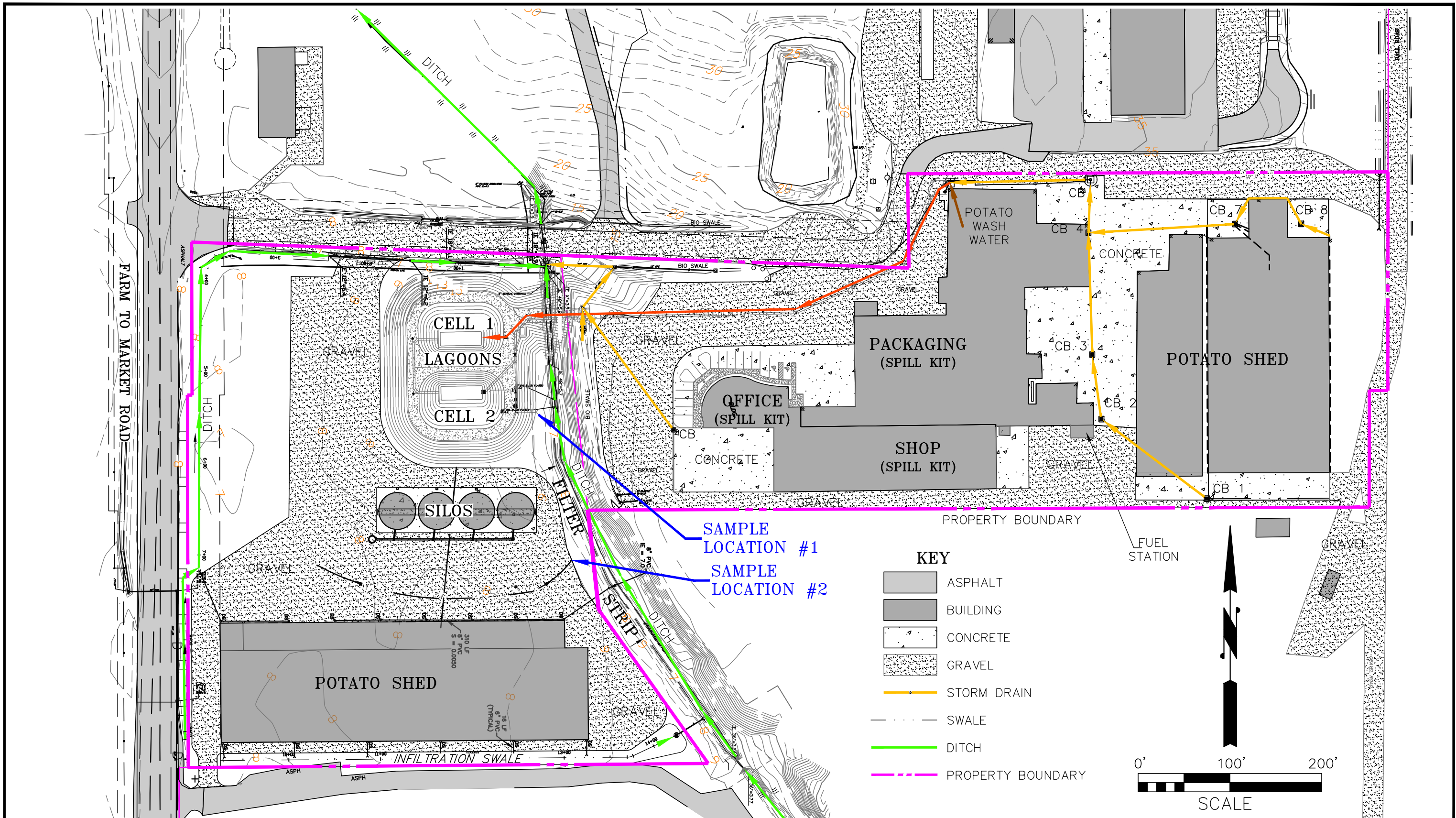
County Boundary	100 foot contours
City Limits	20 foot contours
Townships	
Sections	
500 foot contours	

1" = 2000'



Data Accuracy Warning: All GIS data was created from available public records and existing map sources. Map features have been adjusted to achieve a best-fit registration. While great care was taken in this process, maps from different sources rarely agree as to the precise location of geographic features. Map discrepancies can be as great as 300 feet.

Appendix B. Site Map



COPYRIGHT 2021
SEMRAU ENGINEERING & SURVEYING, PLLC
CIVIL ENGINEERING • LAND SURVEYING • PLANNING
2118 RIVERSIDE DRIVE — SUITE 208
MOUNT VERNON, WA 98273
360-424-9566

NAME: HUGHES FARMS
SITE ADDRESS: 13225 FARM TO MARKET
MOUNT VERNON, WA 98274

ADDRESS: 13225 FARM TO MARKET ROAD
MOUNT VERNON, WA 98273
PROPERTY ID: P13074, P112642, P112650,
P112651, P21286, P21280, P21283

SCALE VERT: 1" = 100'
SCALE HORZ: N/A
NOTE: IF THIS SHEET IS LESS
THAN 11"x 17" THEN SHEET
HAS BEEN REDUCED

DATE: 12/15/21
DRAWING: 4900SITE.MAP.dwg
JOB NO.: 4900
SHEET: 1 OF 1

Appendix C. Copy of the NPDES Permit

Issuance Date: December 12, 2016
Effective Date: January 1, 2017
Expiration Date: December 31, 2021
Modification Date: July 6, 2021

**National Pollutant Discharge Elimination System
Waste Discharge Permit No. WA0991008**

State of Washington
DEPARTMENT OF ECOLOGY
Northwest Regional Office
PO Box 330316
Shoreline, WA 98133-9716

In compliance with the provisions of
The State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington
and
The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1342 et seq.

Hughes Farms, Inc.
13255 Farm to Market Road
Mount Vernon, WA 98273

is authorized to discharge in accordance with the Special and General Conditions that follow.

<u>Facility Location:</u> 13255 Farm to Market Road Mount Vernon, WA 98273 Skagit County	<u>Receiving Water:</u> Local ditch tributary to Little Indian Slough, which is tributary to Padilla Bay
<u>Treatment Type:</u> Flocculent and Sedimentation	<u>Discharge Location:</u> Outfall 001: Field ditch, which flows to Little Indian Slough Latitude: 48.453651°N Longitude: 122.442211°W
<u>Industry Type:</u> Vegetable Washing and Packaging	<u>SIC Code:</u> 0723, Crop Preparation Services for Market



Rachel McCrea
Water Quality Section Manager
Northwest Regional Office
Washington State Department of Ecology

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Summary of Permit Report Submittals

Refer to the Special and General Conditions of this permit for additional submittal requirements.

Permit Section	Submittal	Frequency	First Submittal Date
S3.A	Discharge Monitoring Report	Monthly	February 28, 2017
S3.A	Discharge Monitoring Report	Quarterly	April 28, 2017
S3.G	Reporting Permit Violations	As necessary	
S3.H	Other Reporting	As necessary	
S4.A	Treatment System Operating Plan	1/permit cycle	April 15, 2017
S4.B	Reporting Bypasses	As necessary	
S6	Application for Permit Renewal	1/permit cycle	June 30, 2021
S7	Stormwater Pollution Prevention Plan	1/permit cycle	December 31, 2021
G1	Notice of Change in Authorization	As necessary	
G4	Permit Application for Substantive Changes to the Discharge	As necessary	
G5	Engineering Report for Construction or Modification Activities	As necessary	
G7	Notice of Permit Transfer	As necessary	
G10	Duty to Provide Information	As necessary	
G13	Payment of Fees	As assessed	
G21	Compliance Schedules	As necessary	

Special Conditions

S1. Discharge limits

All discharges and activities authorized by this permit must be consistent with the terms and conditions of this permit.

The discharge of any of the following pollutants more frequently than, or at a level in excess of that identified and authorized by this permit violates the terms and conditions of this permit.

S1.A. Treated wastewater discharge to Little Indian Slough

Beginning on the effective date of this permit and lasting through the expiration date, the Permittee is authorized to discharge treated vegetable wastewater and stormwater to the local ditch which drains to Little Indian Slough, subject to complying with the following limits:

Outfall # 001: Compliance point is at the lined secondary settling pond outlet, prior to going into the field ditch	
Parameter	Maximum Daily ^a
Turbidity	25 NTU
^a Maximum daily effluent limit is the highest allowable daily discharge. The daily discharge is the average discharge of a pollutant measured during a calendar day.	

S2. Monitoring requirements

S2.A. Monitoring schedule

The Permittee must monitor in accordance with the following schedule and the requirements specified in **Appendix A**.

Monitoring location:

Outfall 001¹: 48.453651, -122.442211

Outfall 002¹: 48.453466, -122.442198

Parameter	Units	Outfalls ¹	Minimum Sampling Frequency	Sample Type
Sampling Point 001: The lined secondary settling pond outlet, prior to discharge to the ditch.				
Flow	gpd	001	Monthly	Metered
Turbidity	NTU	001	Monthly	Grab
Copper (total)	µg/L	001	Quarterly	Grab
Zinc (total)	µg/L	001	Quarterly	Grab
Escherichia coli (E. coli)	#/100ml	001, 002	Every 2 weeks	Grab
¹ Outfall 001 is defined as the effluent in the discharge line, prior to discharge to the field ditch. Outfall 002 defines the sampling location for stormwater runoff draining from the Silos area, south of the treatment lagoons. No sampling is required when there is no discharge at outfall 001, or no stormwater runoff at outfall 002 from the Silos area. It must be clearly reported in the web-DMR when there is no discharge.				

S2.B. Sampling and analytical procedures

Samples and measurements taken to meet the requirements of this permit must represent the volume and nature of the monitored parameters, including representative sampling of any unusual discharge or discharge condition, including bypasses, upsets, and maintenance-related conditions affecting effluent quality.

S2.C. Flow measurement, field measurement, and continuous monitoring devices

The Permittee must:

1. Select and use appropriate flow measurement, field measurement, and methods consistent with accepted scientific practices.
2. Install, calibrate, and maintain these devices to ensure the accuracy of the measurements is consistent with the accepted industry standard and the manufacturer's recommendation for that type of device.
3. Use field measurement devices as directed by the manufacturer and do not use reagents beyond their expiration dates.
4. Calibrate these devices at the frequency recommended by the manufacturer.
5. Calibrate flow monitoring devices at a minimum frequency of at least one calibration per year.
6. Maintain calibration records for at least three years.

S2.D. Laboratory accreditation

The Permittee must ensure that all monitoring data required by Ecology is prepared by a laboratory registered or accredited under the provisions of chapter 173-50 WAC, Accreditation of Environmental Laboratories. Flow, temperature, settleable solids, conductivity, pH, turbidity, and internal process control parameters are exempt from this requirement.

S3. Reporting and recording requirements

The Permittee must monitor and report in accordance with the following conditions. Falsification of information submitted to Ecology is a violation of the terms and conditions of this permit.

S3.A. Discharge monitoring reports

The first monitoring period begins on the effective date of the permit (unless otherwise specified). The Permittee must:

1. Summarize, report, and submit monitoring data obtained during each monitoring period on the electronic discharge monitoring report (DMR) form provided by Ecology within the Water Quality Permitting Portal. Include data for each of the parameters tabulated in Special Condition S2 and as required by the form. Report a value for each day sampling occurred (unless specifically exempted in the permit) and for the summary values (when applicable) included on the electronic form.

To find out more information and to sign up for the Water Quality Permitting Portal go to:

<http://www.ecy.wa.gov/programs/wq/permits/paris/webdmr.html>

2. Enter the "No Discharge" reporting code for an entire DMR, for a specific monitoring point, or for a specific parameter as appropriate, if the Permittee did not discharge wastewater or a specific pollutant during a given monitoring period.
3. Report single analytical values below detection as "less than the detection level (DL)" by entering < followed by the numeric value of the detection level (e.g. < 2.0) on the DMR. If the method used did not meet the minimum DL and quantitation level (QL) identified in the permit, report the actual QL and DL in the comments or in the location provided.
4. Report the test method used for analysis in the comments if the laboratory used an alternative method not specified in the permit and as allowed in Appendix A.
5. Calculate average values and calculated total values (unless otherwise specified in the permit) using:
 - a. The reported numeric value for all parameters measured between the agency-required detection value and the agency-required quantitation value.
 - b. One-half the detection value (for values reported below detection) if the lab detected the parameter in another sample from the same monitoring point for the reporting period.
 - c. Zero (for values reported below detection) if the lab did not detect the parameter in another sample for the reporting period.
6. Report single-sample grouped parameters (for example: priority pollutants, PAHs, pulp and paper chlorophenolics, TTOs) on the WQWebDMR form and include sample date, concentration detected, detection limit (DL) (as necessary), and laboratory quantitation level (QL) (as necessary).

The Permittee must also submit an electronic copy of the laboratory report as an attachment using WQWebDMR. The contract laboratory reports must also include information on the chain of custody, QA/QC results, and documentation of accreditation for the parameter.

7. Ensure that DMRs are electronically submitted no later than the dates specified below, unless otherwise specified in this permit.
8. Submit DMRs for parameters with the monitoring frequencies specified in S2 (monthly, quarterly, annual, etc.) at the reporting schedule identified below. The Permittee must:
 - a. Submit **monthly** DMRs by the 28th day of the following month.
 - b. Submit **quarterly DMRs**, unless otherwise specified in the permit, by the 28th day of the month following the monitoring period. Quarterly sampling periods are January through March, April through June, July through September, and October through December. The Permittee must submit the first quarterly DMR on April 28, 2017. The quarterly DMR submittal dates are January 28, April 28, July 28, and October 28.

S3.B. Permit submittals and schedules

The Permittee must use the Water Quality Permitting Portal – Permit Submittals application (unless otherwise specified in the permit) to submit all other written permit-required reports by the date specified in the permit.

When another permit condition requires submittal of a paper (hard-copy) report, the Permittee must ensure that it is postmarked or received by Ecology no later than the dates specified by this permit. Send these paper reports to Ecology at:

Water Quality Permit Coordinator
Department of Ecology
Northwest Regional Office
PO Box 330316
Shoreline, WA 98133-9716

The Permittee must ensure that all other written permit-required reports are postmarked or received by Ecology no later than the dates specified in the permit. Send these paper reports to Ecology at the address included above in Special Condition S3.A.

S3.C. Corrective action annual reports

1. The Permittee must submit a complete and accurate annual report to Ecology no later than May 15th of each year using Ecology's Water Quality Permitting Portal – Permit Submittals application unless no

benchmark values have been exceeded and corrective actions are not required.

2. The annual report must include corrective action documentation as required in S7.A-C. If corrective action is not yet completed at the time of submission of this annual report, the Permittee must describe the status of any outstanding corrective action(s).
3. Permittees must include the following information with each annual report. The Permittee must:
 - a. Identify the condition triggering the need for corrective action review.
 - b. Describe the problem(s) and identify the dates they were discovered.
 - c. Summarize any Level 1, 2, or 3 corrective actions completed during the previous calendar year and include the dates it completed the corrective actions.
 - d. Describe the status of any Level 2 or 3 corrective actions triggered during the previous calendar year, and identify the date it expects to complete corrective actions.
4. Permittees must retain a copy of all annual reports outside for Ecology review.

S3.D. Records retention

The Permittee must retain records of all monitoring information for a minimum of three (3) years. Such information must include all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit. The Permittee must extend this period of retention during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.

S3.E. Recording of results

For each measurement or sample taken, the Permittee must record the following information:

1. The date, exact place, method, and time of sampling or measurement.
2. The individual who performed the sampling or measurement.
3. The dates the analyses were performed.
4. The individual who performed the analyses.
5. The analytical techniques or methods used.

6. The results of all analyses.

S3.F. Additional monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by Special Condition S2 of this permit, then the Permittee must include the results of such monitoring in the calculation and reporting of the data submitted in the Permittee's DMR unless otherwise specified by Special Condition S2.

S3.G. Reporting permit violations

The Permittee must take the following actions when it violates or is unable to comply with any permit condition:

1. Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the noncompliance and correct the problem.
2. If applicable, immediately repeat sampling and analysis. Submit the results of any repeat sampling to Ecology within thirty (30) days of sampling.

a. Twenty-four-hour reporting

The Permittee must report the following occurrences of noncompliance by telephone, to Ecology at (425) 649-7078, within 24 hours from the time the Permittee becomes aware of any of the following circumstances:

1. Any noncompliance that may endanger health or the environment, unless previously reported under immediate reporting requirements.
2. Any unanticipated bypass that causes an exceedance of any effluent limit in the permit (See Part S4.B., "Bypass Procedures").
3. Any upset that causes an exceedance of an effluent limit in the permit (See G.15, "Upset").
4. Any violation of a maximum daily or instantaneous maximum discharge limit for any of the pollutants in Section S1.A of this permit.
5. Any overflow prior to the treatment works, whether or not such overflow endangers health or the environment or exceeds any effluent limit in the permit. This requirement does not include industrial process wastewater overflows to impermeable surfaces which are collected and routed to the treatment works.

b. Report within five days

The Permittee must also submit a written report within five days of the time that the Permittee becomes aware of any reportable event under subparts a or b, above. The report must contain:

1. A description of the noncompliance and its cause.
2. The period of noncompliance, including exact dates and times.
3. The estimated time the Permittee expects the noncompliance to continue if not yet corrected.
4. Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
5. If the noncompliance involves an overflow prior to the treatment works, an estimate of the quantity (in gallons) of untreated overflow.

c. Waiver of written reports

Ecology may waive the written report required in subpart c, above, on a case-by-case basis upon request if the Permittee has submitted a timely oral report.

d. All other permit violation reporting

The Permittee must report all permit violations, which do not require immediate or within 24 hours reporting, when it submits monitoring reports for S3.A ("Reporting"). The reports must contain the information listed in subpart c, above. Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

S3.H. Other reporting

a. Spills of oil or hazardous materials

The Permittee must report a spill of oil or hazardous materials in accordance with the requirements of RCW 90.56.280 and chapter 173-303-145. You can obtain further instructions at the following website:

<http://www.ecy.wa.gov/programs/spills/other/reportaspill.htm>.

b. Failure to submit relevant or correct facts

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to Ecology, it must submit such facts or information promptly.

S3.I. Maintaining a copy of this permit

The Permittee must keep a copy of this permit at the facility and make it available upon request to Ecology inspectors.

S4. Operation and maintenance

The Permittee must, at all times, properly operate and maintain all facilities or systems of treatment and control (and related appurtenances), which are installed to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes keeping a daily operation logbook (paper or electronic), adequate laboratory controls, and appropriate quality assurance procedures.

The Permittee must schedule any facility maintenance, which might require interruption of wastewater treatment and degrade effluent quality, during non-critical water quality periods and carry this maintenance out according to the approved Treatment System Operating Plan or as otherwise approved by Ecology.

S4.A. Treatment system operating plan (TSOP)

The Permittee must prepare and submit the Treatment System Operating Plan (TSOP) to Ecology by April 15, 2017. The Permittee must update and submit this plan, as necessary, to include requirements for any major modifications of the treatment system.

The TSOP must include the following information:

1. A baseline operating condition, which describes the operating parameters and procedures, used to meet the effluent limits of S1 at the production levels used in developing these limits.
2. In the event of production rates, which are below the baseline levels used to establish these limits, the plan must describe the operating procedures and conditions needed to maintain design treatment efficiency. The monitoring and reporting must be described in the plan.
3. In the event of an upset, due to plant maintenance activities, severe stormwater events, startups or shut downs, or other causes, the plan must describe the operating procedures and conditions employed to mitigate the upset. The monitoring and reporting must be described in the plan.
4. A description of any regularly scheduled maintenance or repair activities at the facility which would affect the volume or character of the wastes discharged to the wastewater treatment system and a plan for monitoring and treating/controlling the discharge of maintenance-related materials (such as cleaners, degreasers, solvents, etc.).

S4.B. Bypass procedures

This permit prohibits a bypass, which is the intentional diversion of waste streams from any portion of a treatment facility. Ecology may take enforcement action against a Permittee for a bypass unless one of the following circumstances (1, 2, or 3) applies.

1. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.

This permit authorizes a bypass if it allows for essential maintenance and does not have the potential to cause violations of limits or other conditions of this permit, or adversely impact public health as determined by Ecology prior to the bypass. The Permittee must submit prior notice, if possible, at least ten (10) days before the date of the bypass.

2. Bypass is unavoidable, unanticipated, and results in noncompliance of this permit.

This permit authorizes such a bypass only if:

- a. Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.
 - b. No feasible alternatives to the bypass exist, such as:
 - The use of auxiliary treatment facilities.
 - Retention of untreated wastes.
 - Stopping production.
 - Maintenance during normal periods of equipment downtime, but not if the Permittee should have installed adequate backup equipment in the exercise of reasonable engineering judgment to prevent a bypass.
 - Transport of untreated wastes to another treatment facility.
 - c. The Permittee has properly notified Ecology of the bypass as required in Special Condition S3.F of this permit.
3. If bypass is anticipated and has the potential to result in noncompliance of this permit.
 - a. The Permittee must notify Ecology at least thirty (30) days before the planned date of bypass. The notice must contain:
 - A description of the bypass and its cause.

- An analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing.
 - A cost-effectiveness analysis of alternatives including comparative resource damage assessment.
 - The minimum and maximum duration of bypass under each alternative.
 - A recommendation as to the preferred alternative for conducting the bypass.
 - The projected date of bypass initiation.
 - A statement of compliance with SEPA.
 - A request for modification of water quality standards as provided for in WAC 173-201A-410, if an exceedance of any water quality standard is anticipated.
 - Details of the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.
- b. For probable construction bypasses, the Permittee must notify Ecology of the need to bypass as early in the planning process as possible. The Permittee must consider the analysis required above during the project planning and design process. The project-specific engineering report as well as the plans and specifications must include details of probable construction bypasses to the extent practical. In cases where the Permittee determines the probable need to bypass early, the Permittee must continue to analyze conditions up to and including the construction period in an effort to minimize or eliminate the bypass.
- c. Ecology will consider the following prior to issuing an administrative order for this type of bypass:
- If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of this permit.
 - If feasible alternatives to bypass exist, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.
 - If the Permittee planned and scheduled the bypass to minimize adverse effects on the public and the environment.

After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, Ecology will approve or deny the request. Ecology will give the public an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Ecology will approve a request to bypass by issuing an administrative order under RCW 90.48.12.

S4.C. Pollution prevention program/best management practices

1. The Permittee must dredge the settling pond at least once a year after the processing period. Solids remove from the settling pond must be tilled into the field or otherwise kept away from surface water and stormwater that may contaminate surface water.
2. At no time, the Permittee is allowed to conduct vehicle washing on-site or vehicle maintenance activity outside of a designated building where waste fluid can be generated. All vehicle washing must be done off-site at a permitted car wash facility. Waste products generated from maintenance activity must be hauled off-site and disposed of properly.
3. The Permittee must not discharge hydraulic fluids, oily wastes and petroleum products to the sanitary sewer system.
4. The Permittee must routinely cleanup collected materials to prevent their release into the environment and entry into waters of the state.
5. Storage of waste solids, including waste potatoes and culls, must be in an area that is covered or paved to prevent contact with stormwater. Unwashed product must be stored so as not to come in contact with stormwater or run-off.
6. Stormwater filters should be installed in the storm drains throughout the site, and changed out once a year to prevent sediments, resulting from truck trafficking, from getting in and building up in the storm sewer lines.

S5. Solid wastes

S5.A. Solid waste handling

The Permittee must handle and dispose of all solid waste material in such a manner as to prevent its entry into state ground or surface water.

S5.B. Leachate

The Permittee must not allow leachate from its solid waste material to enter state waters without providing all known, available, and reasonable methods of treatment, nor allow such leachate to cause violations of the State Surface Water Quality Standards, Chapter 173-201A WAC, or the State Ground Water Quality Standards, Chapter 173-200 WAC. The Permittee must apply for a

permit or permit modification as may be required for such discharges to state ground or surface waters.

S6. Application for permit renewal or modification for facility changes

The Permittee must submit an application for renewal of this permit by June 30, 2021. The Permittee must submit a paper copy and an electronic copy (preferably as a PDF). The monitoring results for pesticide/fungicide, and herbicides must be attached with the permit application.

The Permittee must also submit a new application or supplement at least one hundred eighty (180) days prior to commencement of discharges, resulting from the activities listed below, which may result in permit violations. These activities include any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility.

S7. Stormwater pollution prevention plan

The Permittee must develop a stormwater pollution prevention plan (SWPPP) specifically for its facility, and submit the plan to Ecology for review no later than December 31, 2021. The Permittee must implement elements of the SWPPP as written.

S7.A. General requirements

The Permittee must retain the SWPPP on-site or within reasonable access to the site and make it immediately available, upon request, to Ecology inspectors.

1. Enhanced/additional best management practices (BMPs)

The Permittee must provide a schedule in the SWPPP for implementation of any additional or enhanced BMPs that are necessary because of a facility change, a self-inspection, or a notice from Ecology. Unless otherwise authorized by Ecology in writing, a schedule for implementation (plan) must be completed and entered into the SWPPP within thirty (30) days of a notice/determination of necessary improvements, or in accordance with an approved compliance schedule. BMPs identified in the plan must be implemented with due diligence. Unless otherwise authorized by Ecology in writing, noncapital BMPs must be completed within two (2) weeks after completing the plan and capital BMPs within six (6) months.

The Permittee must modify the SWPPP whenever there is a change in design, construction, operation, or maintenance of any BMP which cause(s) the SWPPP to be less effective in controlling the pollutants.

This permit requires the Permittee to conduct visual monitoring, and this monitoring may identify BMPs that are inadequate or pollutant sources

that are not identified or poorly described in the SWPPP. When visual monitoring identifies inadequacies in the SWPPP, due to the actual discharge of or potential to discharge a significant amount of any pollutant, the SWPPP must be modified and BMPs adjusted to correct the deficiency.

S7.B. SWPPP contents and requirements

The SWPPP must contain a detailed assessment of the facility and a detailed description of the BMPs being implemented.

1. Facility assessment

The facility assessment must include a description of the facility, a detailed site map, an inventory of facility activities, and equipment that contribute to or have the potential to contribute pollutants to stormwater, and an inventory of materials that contribute to or have the potential to contribute pollutants to stormwater. The assessment must be as complete as possible and must be updated to reflect changes at the facility. The SWPPP must address each potential source of pollutants with best management practices that will eliminate or reduce the potential to contaminate stormwater.

- a. **Facility description:** The facility description will describe the industrial activities conducted at the site; the general layout of the facility, including buildings and storage of raw materials; and the flow of goods and materials through the facility. It should include seasonal variations, including peaks in production and any changes in work based on season or weather (for example, moving work outdoors on dry days).
- b. **Site map:** The site map must be drawn to an identified scale or include relative distances between significant structures and drainage systems. It must provide identifiers (names) of significant features and be of sufficient size and detail to identify the following: The site map will show the stormwater drainage and discharge structures, an outline of the stormwater drainage areas for each stormwater discharge point (including discharges to ground water), paved areas and buildings, areas of pollutant contact (actual or potential), surface water locations (including wetlands and drainage ditches), areas of existing and potential soil erosion and vehicle service areas; lands and waters adjacent to the site must also be depicted where helpful in identifying discharge points or drainage routes.
- c. **Industrial activities:** The inventory of industrial activities will identify all areas associated with industrial activities which have

been or may potentially be sources of significant amounts of pollutants, including the following:

- i. Loading and unloading of dry bulk materials or liquids.
- ii. Outdoor storage of materials or products.
- iii. Outdoor manufacturing and processing.
- iv. Dust or particulate generating processes.
- v. Roofs or other surfaces exposed to air emissions from a manufacturing building or a process area.
- vi. On-site waste treatment, storage, or disposal.
- vii. Vehicle and equipment fueling, maintenance, and/or cleaning (includes washing).

- d. **Material List:** The inventory of materials will list all the types of materials handled at the site that potentially may be exposed to precipitation or runoff. The inventory will include a short narrative for each material describing the potential of the pollutant to be present in stormwater discharges. The Permittee will update this narrative when data become available to verify the presence or absence of these pollutants. The inventory will include a narrative description of any potential sources of pollutants from past activities; significant materials that were previously handled, treated, stored, or disposed of in a manner to allow ongoing exposure to stormwater; the method and location of on-site storage or disposal; and a list of significant spills and significant leaks of toxic or hazardous pollutants.

2. Monitoring plan

The SWPPP will include a monitoring plan. The plan must identify all the points of discharge to surface water or to a storm drain system. The plan must identify who is responsible for monitoring and how monitoring will be conducted to comply with permit conditions. The monitoring plan will address stormwater sampling requirements and visual inspections. The plan must include the following:

- a. Identification of points of discharge.
- b. A check list for visual monitoring.
- c. Who conducts stormwater sampling.
- d. Procedures for sample collection and handling.
- e. Procedures for sending samples to the lab.

3. BMPs

The SWPPP will include a description of the BMPs that are necessary for the facility to eliminate or reduce the potential to contaminate stormwater. BMPs must be included to comply with the following requirements:

a. **Operational Source Control BMPs:** Operational BMPs are common to all facilities. The categories listed below are a minimum set of BMPs that must be included in the SWPPP.

- i) Pollution prevention team: The SWPPP will include a BMP that identifies specific individuals by name or by title within the facility who are responsible for developing the SWPPP and assisting the facility manager in its implementation, maintenance, and modification. The activities and responsibilities of the team should address all aspects of the facility's SWPPP.
- ii) Good housekeeping: The SWPPP will include a BMP(s) that defines ongoing maintenance and cleanup, as appropriate, of areas which may contribute pollutants to stormwater discharges. The SWPPP will include the schedule/frequency for completing each housekeeping task.
- iii) Preventive maintenance: The SWPPP will include a BMP(s) to inspect and maintain the stormwater drainage and treatment systems (if any), and plant equipment and systems that could fail and result in contamination of stormwater. The SWPPP will include the schedule/frequency for completing each maintenance task.
- iv) Employee Training: The SWPPP will include a BMP(s) to provide SWPPP training for employees who have duties in areas of industrial activity subject to this permit. At a minimum, training must include an overview of what is in the SWPPP and how employees make a difference in complying with the SWPPP and preventing contamination of stormwater. The training must address spill response procedures, good housekeeping, and material management practices. The BMP(s) must provide the content of the training, how training will be conducted, and the frequency/schedule for assuring employees will receive training. Annual training is the minimum acceptable frequency. A log of the dates on which specific employees receive training must be kept and included in the SWPPP.

v) **Inspections and record keeping:** The SWPPP will identify personnel responsible for inspections of BMPs (i.e., structural and non-structural) including housekeeping of the processing and storage area, the silos and employee parking areas. The Permittee must also provide a tracking or follow-up procedure to ensure that appropriate action has been taken in response to monitoring. There must be documentation of visual inspections, stormwater monitoring, reporting and record keeping procedures and schedules as required by the permit.

b. **Structural Source Control BMPs:** Structural source control BMPs must be provided to eliminate or minimize the exposure of stormwater to pollutants. Volume IV of Ecology's *Stormwater Management Manual for Western Washington* provides useful information for source control BMPs. Those BMPs listed as "applicable" are considered the minimum set of required BMPs for compliance with this permit. Equivalent BMPs may be selected which result in equal or better quality of stormwater discharge.

c. **Treatment BMPs:** Treatment BMPs are required when operational and source control BMPs are not adequate to reduce pollutants below a significant amount and maintain compliance with water quality standards. At a minimum, the SWPPP must include a narrative that describes how the Permittee determined if treatment BMPs are or are not required. When treatment BMPs are required, refer to Ecology's *Stormwater Management Manual for Western Washington*, Volume V, or equivalent manual, for guidance on selecting treatment BMPs.

4. **Other BMPs**

Nothing in Special Condition S7 of this permit is intended to preclude the application of innovative treatment, source control, reduction or recycle, or operational BMPs beyond those identified in Ecology's *Stormwater Management Manual for Western Washington*. Additional BMPs beyond those identified in Ecology's *Stormwater Management Manual for Western Washington* may be necessary to achieve compliance with standards.

However, treatment BMPs that include addition of chemicals to provide treatment must be approved by Ecology before implementation.

S8. FACILITY LOADING

S8.A Design criteria

The flows or waste loads for the permitted facility must not exceed the following design criteria:

Design flow rate for the Treatment Lagoons

Parameter	Design Quantity
Maximum design flow	130 gpm (187,200 gpd)

General Conditions

G1. Signatory requirements

1. All applications, reports, or information submitted to Ecology must be signed and certified.
 - a. In the case of corporations, by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or
 - The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - In the case of a partnership, by a general partner.
 - In the case of sole proprietorship, by the proprietor.
 - In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.

Applications for permits for domestic wastewater facilities that are either owned or operated by, or under contract to, a public entity must be submitted by the public entity.

2. All reports required by this permit and other information requested by Ecology must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described above and submitted to Ecology.
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent

responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

3. Changes to authorization. If an authorization under paragraph B.2, above, is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph B.2, above, must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Certification. Any person signing a document under this section must make the following certification:

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

G2. Right of inspection and entry

The Permittee must allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law:

1. To enter upon the premises where a discharge is located or where any records must be kept under the terms and conditions of this permit.
2. To have access to and copy, at reasonable times and at reasonable cost, any records required to be kept under the terms and conditions of this permit.
3. To inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.
4. To sample or monitor, at reasonable times, any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

G3. Permit actions

This permit may be modified, revoked and reissued, or terminated either at the request of any interested person (including the permittee) or upon Ecology's

initiative. However, the permit may only be modified, revoked and reissued, or terminated for the reasons specified in 40 CFR 122.62, 122.64 or WAC 173-220-150 according to the procedures of 40 CFR 124.5.

1. The following are causes for terminating this permit during its term, or for denying a permit renewal application:
 - a. Violation of any permit term or condition.
 - b. Obtaining a permit by misrepresentation or failure to disclose all relevant facts.
 - c. A material change in quantity or type of waste disposal.
 - d. A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations and can only be regulated to acceptable levels by permit modification or termination.
 - e. A change in any condition that requires either a temporary or permanent reduction, or elimination of any discharge or sludge use or disposal practice controlled by the permit.
 - f. Nonpayment of fees assessed pursuant to RCW 90.48.465.
 - g. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.
2. The following are causes for modification but not revocation and reissuance except when the Permittee requests or agrees:
 - a. A material change in the condition of the waters of the state.
 - b. New information not available at the time of permit issuance that would have justified the application of different permit conditions.
 - c. Material and substantial alterations or additions to the permitted facility or activities which occurred after this permit issuance.
 - d. Promulgation of new or amended standards or regulations having a direct bearing upon permit conditions, or requiring permit revision.
 - e. The Permittee has requested a modification based on other rationale meeting the criteria of 40 CFR Part 122.62.
 - f. Ecology has determined that good cause exists for modification of a compliance schedule, and the modification will not violate statutory deadlines.
 - g. Incorporation of an approved local pretreatment program into a municipality's permit.

3. The following are causes for modification or alternatively revocation and reissuance:
 - a. When cause exists for termination for reasons listed in A1 through A7 of this section, and Ecology determines that modification or revocation and reissuance is appropriate.
 - b. When Ecology has received notification of a proposed transfer of the permit. A permit may also be modified to reflect a transfer after the effective date of an automatic transfer (General Condition G7) but will not be revoked and reissued after the effective date of the transfer except upon the request of the new Permittee.

G4. Reporting planned changes

The Permittee must, as soon as possible, but no later than sixty (60) days prior to the proposed changes, give notice to Ecology of planned physical alterations or additions to the permitted facility, production increases, or process modification which will result in:

1. The permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b).
2. A significant change in the nature or an increase in quantity of pollutants discharged.
3. A significant change in the Permittee's sludge use or disposal practices. Following such notice, and the submittal of a new application or supplement to the existing application, along with required engineering plans and reports, this permit may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

G5. Plan review required

Prior to constructing or modifying any wastewater control facilities, an engineering report and detailed plans and specifications must be submitted to Ecology for approval in accordance with chapter 173-240 WAC. Engineering reports, plans, and specifications must be submitted at least one hundred eighty (180) days prior to the planned start of construction unless a shorter time is approved by Ecology. Facilities must be constructed and operated in accordance with the approved plans.

G6. Compliance with other laws and statutes

Nothing in this permit excuses the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G7. Transfer of this permit

In the event of any change in control or ownership of facilities from which the authorized discharge emanate, the Permittee must notify the succeeding owner or controller of the existence of this permit by letter, a copy of which must be forwarded to Ecology.

1. Transfers by Modification

Except as provided in paragraph (B) below, this permit may be transferred by the Permittee to a new owner or operator only if this permit has been modified or revoked and reissued under 40 CFR 122.62(b)(2), or a minor modification made under 40 CFR 122.63(d), to identify the new Permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

2. Automatic Transfers

This permit may be automatically transferred to a new Permittee if:

- a. The Permittee notifies Ecology at least thirty (30) days in advance of the proposed transfer date.
- b. The notice includes a written agreement between the existing and new Permittees containing a specific date transfer of permit responsibility, coverage, and liability between them.
- c. Ecology does not notify the existing Permittee and the proposed new Permittee of its intent to modify or revoke and reissue this permit. A modification under this subparagraph may also be minor modification under 40 CFR 122.63. If this notice is not received, the transfer is effective on the date specified in the written agreement.

G8. Reduced production for compliance

The Permittee, in order to maintain compliance with its permit, must control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

G9. Removed substances

Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must not be resuspended or reintroduced to the final effluent stream for discharge to state waters.

G10. Duty to provide information

The Permittee must submit to Ecology, within a reasonable time, all information which Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to Ecology upon request, copies of records required to be kept by this permit.

G11. Other requirements of 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G12. Additional monitoring

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G13. Payment of fees

The Permittee must submit payment of fees associated with this permit as assessed by Ecology.

G14. Penalties for violating permit conditions

Any person who is found guilty of willfully violating the terms and conditions of this permit is deemed guilty of a crime, and upon conviction thereof must be punished by a fine of up to ten thousand dollars (\$10,000) and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit may incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars (\$10,000) for every such violation. Each and every such violation is a separate and distinct offense, and in case of a continuing violation, every day's continuance is deemed to be a separate and distinct violation.

G15. Upset

Definition – “Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limits if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the Permittee can identify the cause(s) of the upset.
2. The permitted facility was being properly operated at the time of the upset.
3. The Permittee submitted notice of the upset as required in Condition S3.E.
4. The Permittee complied with any remedial measures required under S4.C of this permit.

In any enforcement action the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G16. Property rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

G17. Duty to comply

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

G18. Toxic pollutants

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G19. Penalties for tampering

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit must, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two (2) years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this condition, punishment must be a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four (4) years, or by both.

G20. Reporting requirements applicable to existing manufacturing, commercial, mining, and silvicultural dischargers

The Permittee belonging to the categories of existing manufacturing, commercial, mining, or silviculture must notify Ecology as soon as they know or have reason to believe:

1. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following "notification levels:"
 - a. One hundred micrograms per liter (100 µg/L).
 - b. Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony.
 - c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
 - d. The level established by the Director in accordance with 40 CFR 122.44(f).
2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following "notification levels":
 - a. Five hundred micrograms per liter (500µg/L).
 - b. One milligram per liter (1 mg/L) for antimony.
 - c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
 - d. The level established by the Director in accordance with 40 CFR 122.44(f).

G21. Compliance schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than fourteen (14) days following each schedule date.

Appendix A

LIST OF POLLUTANTS WITH ANALYTICAL METHODS, DETECTION LIMITS AND QUANTITATION LEVELS

The Permittee must use the specified analytical methods, detection limits (DLs) and quantitation levels (QLs) in the following table for permit and application required monitoring unless:

- Another permit condition specifies other methods, detection levels, or quantitation levels.
- The method used produces measurable results in the sample and EPA has listed it as an EPA-approved method in 40 CFR Part 136.

If the Permittee uses an alternative method, not specified in the permit and as allowed above, it must report the test method, DL, and QL on the discharge monitoring report or in the required report.

When the permit requires the Permittee to measure the base neutral compounds in the list of priority pollutants, it must measure all of the base neutral pollutants listed in the table below. The list includes EPA required base neutral priority pollutants and several additional polynuclear aromatic hydrocarbons (PAHs). The Water Quality Program added several PAHs to the list of base neutrals below from Ecology's Persistent Bioaccumulative Toxics (PBT) List. It only added those PBT parameters of interest to Appendix A that did not increase the overall cost of analysis unreasonably.

Ecology added this appendix to the permit in order to reduce the number of analytical "non-detects" in permit-required monitoring and to measure effluent concentrations near or below criteria values where possible at a reasonable cost.

CONVENTIONAL PARAMETERS

Pollutant & CAS No. (if available)	Recommend ed Analytical Protocol	Detection (DL)¹ µg/L unless specified	Quantitation Level (QL)² µg/L unless specified
Total Suspended Solids	SM2540-D		5 mg/L
Flow	Calibrated device		
pH	SM4500-H ⁺ B	N/A	N/A
Fecal Coliform	SM 9221E,9222	N/A	Specified in method sample aliquot dependent
Escherichia coli (E. coli)	SM 9221B, 9221F, 9223B, SM-9222G	N/A	Specified in method sample aliquot dependent

Appendix D. Inspection Reports



Section Title: Monitoring Logs

Document Title: Pre-Operational Daily Area Inspection Checklist: Parking Lots & Surroundings/Garbage Disposal

Document Number: 10.01A

Revision Number: 4

Revision Date: 10/13/2021

Page 1 of 1

Write "A" if condition is acceptable. Write "R" if condition is rejected AND record corrective actions taken, by whom and the date and time correction was completed. *Escriba la letra "A" cuando la condición sea aceptable. Escriba la letra "R" si la condición es rechazada y registre las acciones correctivas tomadas, especificando, quién la realiza, la fecha y el tiempo en que la acción correctiva va a ser completada.*

[Yea

Month: [Month] Year: r]

Packing Lots & Surroundings/Garbage Disposal Area Daily Area Inspection Checklist	Sun Dom	Mon Lun	Tue Mar	Wed Mie	Thu Tue	Fri Vie	Sat Sab
Date of Inspection Fecha de Inspección	30	31	1	2	3	4	5
Parking Lot Near Facility Free of Trash and Potholes. <i>Estacionamiento cercano a la Instalación libre de basura y baches.</i>							
Check for leaks from trucks/Equip. Place drip tray under any leaks. Use spill mats to absorb.							
Grounds Near Facility Free of Trash and Cigarette Butts, etc. <i>Suelos cercanos a la Instalación libre de basura y colillas de cigarro, etc.</i>							
Dumpster Area Free of Trash <i>Área de Contenedor libre de basura</i>							
Dumpster Intact and Not Leaking/covered when not in use. <i>Contenedor Intacto y sin fugas/ tapado cuando no esta en uso.</i>							
Drainage system clean and free of debris <i>Sistema de drenaje limpio y libre de residuos.</i>							
No Standing water. <i>No hay agua estancada.</i>							
Rodent Control Devices: no apparent rodent activity and fastened to wall or ground. <i>Dispositivos de control de roedores: Sin actividad aparente y sujetos al suelo o a la pared.</i>							
Area free of bird or rodent activity. <i>Area libre de actividad de pájaros o roedores.</i>							
All signage is in place. <i>Todas las señales en su lugar.</i>							
All hoses, when not in use should be rolled up and hung properly. <i>Todas las mangueras cuando no se usan deben estar debidamente enrolladas y colgadas.</i>							
Smoking containers clean. <i>Deposito de cigarillos limpios.</i>							
Trash cans emptied and cleaned. <i>Basureros vacíos y limpios.</i>							
Date Fecha	Corrective Action Taken for Rejected Conditions Acción Correctiva Tomada para Condiciones Rechazadas				Corrected By Corregido Por	Date Fecha	Time Hora

I have observed completion of the items checked above. *He observado la finalización de los puntos chequeados arriba.*

Signature _____
Firma

German Garcia
Printed Name Nombre

Date _____
Fecha

Reviewed By _____
Revisado Por Signature Firma

Aaron Taylor
Printed Name Nombre

Date _____
Fecha



Section Title: Monitoring Logs

Document Title: Pre-Operational Daily Area Inspection Checklist: Sanitation Supply Storage Rooms

Document Number: 10.01F

Revision Number: 3

Revision Date: 10/12/2021

Page 1 of 1

Write "A" if condition is acceptable. Write "R" if condition is rejected AND record corrective actions taken, by whom and the date and time correction was completed. *Escriba la letra "A" cuando la condición sea aceptable. Escriba la letra "R" si la condición es rechazada y registre las acciones correctivas tomadas, especificando, quién la realiza, la fecha y el tiempo en que la acción correctiva va a ser completada.*

[Yea
Month: [Month] Year: r]

Sanitation Supply Storage Rooms Daily Area Inspection Checklist	Sun Dom	Mon Lun	Tue Mar	Wed Mie	Thu Jue	Fri Vie	Sat Sab
Date of Inspection Fecha de Inspección	30	31	1	2	3	4	5
All lighting properly illuminating and shields intact. All shields free of debris and insect fragments. <i>Todas las luces iluminan correctamente y protecciones intactas. Todas las protecciones están libres de residuos y restos de insectos.</i>							
Floors free of product debris and trash. <i>Pisos libres de residuos de producto y basura.</i>							
All Sanitation Equipment cleaned and properly stored. <i>Todo el equipo de sanitización es limpiado y almacenado correctamente.</i>							
Check for leaks/ spills. Check catch basins and clean if needed.							
Spill containment equipment: Check and restock booms, floor dry and pads.							
No containers used for Produce contain items used for misc. storage. <i>Los recipientes utilizados para Producto no contienen elementos de almacenamiento misceláneo.</i>							
All signage is in place for color coding of cleaning supplies. <i>Todas las señalética están en su lugar con código de colores de artículos de limpieza</i>							
Insure properly color-coded cleaning equipment are separated well enough to prevent any cross-contamination issues. Insure that this equipment be mounted on the wall or placed within clean and dry buckets (i.e., not placed directly on the floor) <i>Asegúrese que los equipos de limpieza estén separados por códigos de color lo suficientemente bien como para evitar una contaminación cruzada. Asegúrese que los equipos estén colgados en la pared o colocados en baldes limpios y secos. (No estén tocando directamente el suelo)</i>							

Date Fecha	Corrective Action Taken for Rejected Conditions Acción Correctiva Tomada para Condiciones Rechazadas	Corrected By Corregido Por	Date Fecha	Time Hora

I have observed completion of the items checked above. *He observado la finalización de los puntos chequeados arriba.*

Signature _____
Firma

Juan Ortiz
Printed Name Nombre

Date _____
Fecha

Reviewed By _____
Revisado Por Signature Firma

Aaron Taylor
Printed Name Nombre

Date _____
Fecha



Section Title: Monitoring Logs

Document Title: Pre-Operational Daily Area Inspection Checklist: Maintenance Shop

Document Number: 10.01J

Revision Number: 4

Revision Date: 10/12/2021

Page 1 of 1

Write "A" if condition is acceptable. Write "R" if condition is rejected AND record corrective actions taken, by whom and the date and time correction was completed. *Escriba la letra "A" cuando la condición sea aceptable. Escriba la letra "R" si la condición es rechazada y registre las acciones correctivas tomadas, especificando, quién la realiza, la fecha y el tiempo en que la acción correctiva va a ser completada.*

[Year]
Month: [Month] Year: [r]

Maintenance Shop Daily Area Inspection Checklist	Sun Dom	Mon Lun	Tue Mar	Wed Mie	Thu Jue	Fri Vie	Sat Sab
Date of Inspection Fecha de Inspección	30	31	1	2	3	4	5
All lighting properly illuminating and shields intact. All shields free of debris and insect fragments. <i>Todas las luces iluminan correctamente y protecciones intactas. Todas las protecciones están libres de residuos y restos de insectos.</i>							
Floors cleaned and free of trash. <i>Pisos limpios y libres de basura.</i>							
Walls ceilings and overhead lights and pipelines cleaned and free of debris, mold and spider webs. <i>Paredes, techos, luces y tuberías superiores limpias y libres de residuos, hongos y telarañas.</i>							
Employee's belongings properly stored. <i>Pertenencias de los trabajadores guardados correctamente.</i>							
All tools free of oil or grease. <i>Todas las herramientas libres de aceite y grasa.</i>							
No containers used for Produce contain items used for misc. storage. <i>Los recipientes utilizados para Productos no contienen elementos de almacenamiento misceláneo.</i>							
Trash cans empty, clean and lined. <i>Basureros vacíos, limpios y alineados.</i>							
No metal filings on floor adjacent to grinding or drilling units. <i>No hay limaduras metálicas en el suelo cerca de unidades para moler o perforar.</i>							
Fuel Room: Check for leaks/ spills. Check catch basin and clean if needed.							
Spill containment Equipment: Check and restock Booms floor dry and pads.							
All signage is in place. <i>Toda la señalética en su lugar.</i>							
First aid kit in adequate supply. <i>Botiquín primeros auxilios abastecido adecuadamente.</i>							

Date Fecha	Corrective Action Taken for Rejected Conditions Acción Correctiva Tomada para Condiciones Rechazadas	Corrected By Corregido Por	Date Fecha	Time Hora

I have observed completion of the items checked above. He observado la finalización de los puntos chequeados arriba.

Signature
Firma

Hugo Salazar

Printed Name Nombre

Date
Fecha

Reviewed By

Revisado Por Signature Firma

Aaron Taylor

Printed Name Nombre

Date
Fecha

Appendix E. Spill Log

<p align="center">SPILL LOG</p> <p align="center">*Contact Jose for all spills 360-770-2176</p>	
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DATE	TIME	WHAT SPILLED	WHERE IS SPILL	QUANTITY SPILLED	WHO CLEANED SPILL
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[illegible]

Chemical Index

Updated 10/12/2021

Product	Manufacturer
Citric Acid 50%	Cascade Columbia
Contrac All-Weather Blox	Bell Laboratories
D-Foam	Wesmar Company, Inc.
FS Amine Z	Zep Inc.
Keeper Professional	Bio-Cide
Morado Super Cleaner	Zep Inc.
Per-Ox (AFCO 4325)	Alex C. Fergusen, LLC.
Per-Ox Extreme (AFCO 4367)	Alex C. Fergusen, LLC
Peroxy-Serve 5	Zep Inc.
Peroxy-Serve 15	Zep Inc.
Ployfloc 820	Wesmar Company, Inc.
Sodium Hypochlorite Solution	Cascade Columbia
Spud Guard 2 EC	Pin Nip- 1,4Group
Diesel Fuel	CHS Inc.
Unleaded Gasoline	CHS Inc.
Fleetguard Antifreeze	Cummins Filtration
SAE 15W-40 Motor Oil	Viscosity
Ultraction Hydraulic Fluid	Viscosity
Propane	CHS Inc.

Appendix F. Training Log



Food Safety Manual

Document Name:
Document Number:
Revision Number:
Revision Date:

Meeting/Training Documentation
SOP #10.09
1
05/31/12

Date: 12/8/21 Trainer: Aaron/Jose V.
Name Title

Type of Training: ☒ Food Safety ☒ Job Specific
☒ Farm Safety ☒ Training/Re-Training
☒ Other: Sanitation

Subject(s) Covered (Attach Outline):
SOP #7.02 Master Cleaning Sanitation Schedule
SOP #7.03 Cleaning/SSOP (Facility walk through going over each area)
SOP #7.07 Amine-Z Testing, SOP #7.10 Chlorine Testing
SOP #7.06 Chemical Safety, Storage & Record Keeping Info
SOP #7.05 Clean in Place Procedures
PPE
Spill Prevention & Cleanup

*AAJ
12/8/21*

By signing below, I verify that I have read, or been read to, the subject(s) covered. I understand, and acknowledge all information related to the above meeting.

Emp #	Name	Signature
#4002	Garcia, German	<i>German Garcia</i>
#4007	Ochoa, Jose	<i>Jose Ochoa</i>
#4008	Ortiz, Juan J.	<i>Juan Ortiz</i>
#4212	Duran Valdez, Enrique	<i>Enrique</i>
#4004	Gutierrez Saldivar, Jose	<i>J. Gutierrez Saldivar S.</i>
#4011	Rodriguez, Gabriel	<i>GABRIEL RODRIGUEZ</i>
#4012	Salazar B., Hugo	<i>Hugo Salazar B.</i>
#4005	Hernandez, Cristobal	<i>Cristobal Hernandez</i>
#4003	Garcia, Marcos C	<i>Marcos Garcia</i>
#4006	Hernandez, Leonardo	<i>Leonardo Hernandez</i>
#4017	Torres, Jesus	<i>Juan</i>

Appendix G:

Full Text of relevant BMPs with maintenance Info

S414 BMPs for Maintenance and Repair of Vehicles and Equipment

Description of Pollutant Sources: Pollutant sources include parts/vehicle cleaning, spills/leaks of fuel and other liquids, replacement of liquids, outdoor storage of batteries/liquids/parts, and vehicle parking.

Pollutant Control Approach: Control of leaks and spills of fluids using good housekeeping and cover and containment BMPs.

Applicable Operational BMPs:

- Inspect all incoming vehicles, parts, and equipment stored temporarily outside for leaks.
- Use drip pans or containers under parts or vehicles that drip or that are likely to drip liquids, such as during dismantling of liquid containing parts or removal or transfer of liquids. Inspect drip pans regularly to prevent accumulation of stormwater or other liquids, and dispose of any accumulated liquid appropriately.
- Remove batteries and liquids from vehicles and equipment in designated areas designed to prevent stormwater contamination. Store cracked batteries in a covered non-leaking secondary containment system.
- Remove liquids from vehicles retired for scrap.
- Empty oil and fuel filters before disposal. Provide for proper disposal of used oil and fuel.
- Do not pour/convey washwater, liquid waste, or other pollutants into storm drains or to surface water. Check with the local sanitary sewer authority for approval to convey water to a sanitary sewer.
- Do not connect maintenance and repair shop floor drains to storm drains or to surface water.
- To allow for snowmelt during the winter, install a drainage trench with a sump for particulate collection. Use the drainage trench for draining the snowmelt only. Do not discharge any vehicular or shop pollutants to the trench drain.

Applicable Structural Source Control BMPs:

- Conduct all maintenance and repair of vehicles and equipment in a building, or other covered impervious containment area that is sloped to prevent run-on of uncontaminated stormwater and runoff of contaminated water.
- Operators may conduct maintenance of refrigeration engines in refrigerated trailers in the parking area. Exercise due caution to avoid the release of engine or refrigeration fluids to storm drains or surface water.
- Park large mobile equipment, such as log stackers, in a designated contained area.

Applicable Treatment BMPs:

Convey contaminated stormwater runoff from vehicle staging and maintenance areas to a sanitary sewer, if allowed by the local sewer authority, or to an API or CP oil and water separator followed by a Basic Treatment BMP (See [Volume V](#)), applicable filter, or other equivalent oil treatment system.

Note this applicable treatment BMP for contaminated stormwater.

Recommended Additional Operational BMPs:

- Store damaged vehicles inside a building or other covered containment, until successfully removing all liquids.
- Clean parts with aqueous detergent based solutions or non-chlorinated solvents such as kerosene or high flash mineral spirits, and/or use wire brushing or sand blasting whenever practicable. Avoid using toxic liquid cleaners such as methylene chloride, 1,1,1-trichloroethane, trichloroethylene or similar chlorinated solvents. Choose cleaning agents that can be recycled.
- Inspect all BMPs regularly, particularly after a significant storm. Identify and correct deficiencies to ensure that the BMPs are functioning as intended.
- Avoid hosing down work areas. Use dry methods for cleaning leaked fluids.
- Recycle greases, used oil, oil filters, antifreeze, cleaning solutions, automotive batteries, hydraulic fluids, transmission fluids, and engine oils. Contact Ecology's Hazardous Waste & Toxics Reduction Program for recommendations on recycling or disposal of waste materials. (<https://ecology.wa.gov/About-us/Get-to-know-us/Our-Programs/Hazardous-Waste-Toxics-Reduction>)
- Do not mix dissimilar or incompatible waste liquids stored for recycling.

S454 BMPs for Preventive Maintenance / Good Housekeeping

Preventative maintenance and good housekeeping practices reduce the potential for stormwater to come into contact with pollutants and can reduce maintenance intervals for the drainage system and sewer system.

Applicable BMPs:

- Prevent the discharge of unpermitted liquid or solid wastes, process wastewater, and sewage to ground or surface water, or to storm drains that discharge to surface water, or to the ground. Conduct all oily parts cleaning, steam cleaning, or pressure washing of equipment or containers inside a building, or on an impervious contained area, such as a concrete pad. Direct contaminated stormwater from such an area to a sanitary sewer where allowed by local sewer authority, or to other approved treatment.
- Promptly contain and clean up solid and liquid pollutant leaks and spills including oils, solvents, fuels, and dust from manufacturing operations on an exposed soil, vegetation, or paved area.
- If a contaminated surface must be pressure washed, collect the resulting washwater for proper disposal (usually involves plugging storm drains, or otherwise preventing discharge and pumping or vactoring up washwater, for discharge to sanitary sewer or for vactor truck transport to a waste water treatment plant for disposal).
- Do not hose down pollutants from any area to the ground, storm drains, conveyance ditches, or receiving water. Convey pollutants before discharge to a treatment system approved by the local jurisdiction.
- Sweep all appropriate surfaces with vacuum sweepers quarterly, or more frequently as needed, for the collection and disposal of dust and debris that could contaminate stormwater. Use mechanical sweepers, and manual sweeping as necessary to access areas that a vacuum sweeper can't reach to ensure that all surface contaminants are routinely removed.
- Do not pave over contaminated soil unless it has been determined that ground water has not been and will not be contaminated by the soil. Call Ecology for assistance.
- Construct impervious areas that are compatible with the materials handled. Portland cement concrete, asphalt, or equivalent material may be considered.
- Use drip pans to collect leaks and spills from industrial/commercial equipment such as cranes at ship/boat building and repair facilities, log stackers, industrial parts, trucks and other vehicles stored outside.
- At industrial and commercial facilities, drain oil and fuel filters before disposal. Discard empty oil and fuel filters, oily rags, and other oily solid waste into appropriately closed and properly labeled containers, and in compliance with the Uniform Fire Code or International Building Code.
- For the storage of liquids use containers, such as steel and plastic drums, that are rigid and

durable, corrosion resistant to the weather and fluid content, non-absorbent, water tight, rodent-proof, and equipped with a close fitting cover.

- For the temporary storage of solid wastes contaminated with liquids or other potential polluted materials use dumpsters, garbage cans, drums, and comparable containers, which are durable, corrosion resistant, non-absorbent, non-leaking, and equipped with either a solid cover or screen cover to prevent littering. If covered with a screen, the container must be stored under a roof or other form of adequate cover.
- Where exposed to stormwater, use containers, piping, tubing, pumps, fittings, and valves that are appropriate for their intended use and for the contained liquid.
- Clean oils, debris, sludge, etc. from all stormwater facilities regularly, including catch basins, settling/detention basins, oil/water separators, boomed areas, and conveyance systems to prevent the contamination of stormwater. Refer to [Ecology Requirements for Generators of Dangerous Wastes](#) in [I-2.15 Other Requirements](#) for references to assist in handling potentially dangerous waste.
- Promptly repair or replace all substantially cracked or otherwise damaged paved secondary containment, high-intensity parking, and any other drainage areas, subjected to pollutant material leaks or spills. Promptly repair or replace all leaking connections, pipes, hoses, valves, etc., which can contaminate stormwater.
- Do not connect floor drains in potential pollutant source areas to storm drains, surface water, or to the ground.

Recommended BMPs:

- Where feasible, store potential stormwater pollutant materials inside a building or under a cover and/or containment.
- Minimize use of toxic cleaning solvents, such as chlorinated solvents, and other toxic chemicals.
- Use environmentally safe raw materials, products, additives, etc. such as substitutes for zinc used in rubber production.
- Recycle waste materials such as solvents, coolants, oils, degreasers, and batteries to the maximum extent feasible. Contact Ecology's *Hazardous Waste & Toxics Reduction Program* at <https://ecology.wa.gov/About-us/Get-to-know-us/Our-Programs/Hazardous-Waste-Toxics-Reduction> for recommendations on recycling or disposal of vehicle waste liquids and other waste materials.
- Empty drip pans immediately after a spill or leak is collected in an uncovered area.
- Stencil warning signs at stormwater catch basins and drains, e.g., “Dump no waste – Drains to waterbody”.
- Use solid absorbents, e.g., clay and peat absorbents and rags for cleanup of liquid spills/leaks, where practicable.
- Promptly repair/replace/reseal damaged paved areas at industrial facilities.

- Recycle materials, such as oils, solvents, and wood waste, to the maximum extent practicable.

Note: Evidence of stormwater contamination by oils and grease can include the presence of visible sheen, color, or turbidity in the runoff, or present or historical operational problems at the facility. Operators can use simple pH tests, for example with litmus or pH paper. These tests can screen for high or low pH levels (anything outside a 6.5-8.5 range) due to contamination in stormwater.

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S416 BMPs for Maintenance of Roadside Ditches

Description of Pollutant Sources: Common road debris including eroded soil, oils, vegetative particles, and heavy metals can be sources of stormwater pollutants.

Pollutant Control Approach: Maintain roadside ditches to preserve the condition and capacity for which they were originally constructed, and to minimize bare or thinly vegetated ground surfaces. Maintenance practices should provide for erosion and sediment control (see [S411 BMPs for Landscaping and Lawn / Vegetation Management](#)).

Additional Regulations: Note that work in wet areas may be regulated by local, state, or federal regulations that impose additional obligations on the responsible party. Check with the appropriate authorities prior to beginning work in those areas.

Applicable Operational BMPs:

- Inspect roadside ditches regularly to identify sediment accumulations and localized erosion.
- Clean ditches on a regular basis, as needed. Keep ditches free of rubbish and debris.
- Vegetation in ditches often prevents erosion and cleanses runoff waters. Remove vegetation only when flow is blocked or excess sediments have accumulated. Conduct ditch maintenance (seeding, fertilizer application, harvesting) in late spring and/or early fall, where possible. This allows re-establishment of vegetative cover by the next wet season thereby minimizing erosion of the ditch as well as making the ditch effective as a biofilter.
- Do not apply fertilizer unless needed to maintain vegetative growth.
- In the area between the edge of the pavement and the bottom of the ditch, commonly known as the “bare earth zone,” use grass vegetation, wherever possible. Establish vegetation from the edge of the pavement, if possible, or at least from the top of the slope of the ditch.
- Maintain diversion ditches on top of cut slopes constructed to prevent slope erosion by

intercepting surface drainage to retain their diversion shape and capability.

- Use temporary erosion and sediment control measures or re-vegetate as necessary to prevent erosion during ditch reshaping.
- Do not leave ditch cleanings on the roadway surfaces. Sweep, collect, and dispose of dirt and debris remaining on the pavement at the completion of ditch cleaning operations as described below:
 - Consider screening roadside ditch cleanings, not contaminated by spills or other releases and not associated with a stormwater treatment system such as a bioswale, to remove litter. Separate screenings into soil and vegetative matter (leaves, grass, needles, branches, etc.) categories. Compost or dispose of the vegetative matter in a municipal waste landfill. Consult with the jurisdictional health department to discuss use or disposal options for the soil portion. For more information, see [Appendix IV-B: Management of Street Waste Solids and Liquids](#).
 - Roadside ditch cleanings contaminated by spills or other releases known or suspected to contain dangerous waste must be handled following the Dangerous Waste Regulations ([Chapter 173 303 WAC](#)). If testing determines materials are not dangerous waste but contaminants are present, consult with the jurisdictional health department for disposal options.
- Examine culverts on a regular basis for scour or sedimentation at the inlet and outlet, and repair as necessary. Give priority to those culverts conveying perennial and/or salmon-bearing streams and culverts near streams in areas of high sediment load, such as those near subdivisions during construction. Maintain trash racks to avoid damage, blockage, or erosion of culverts.

Recommended Treatment BMPs:

Install biofiltration swales and filter strips (see [V-7 Biofiltration BMPs](#)) to treat roadside runoff wherever practicable and use engineered topsoils wherever necessary to maintain adequate vegetation. These systems can improve infiltration and stormwater pollutant control upstream of roadside ditches.

S417 BMPs for Maintenance of Stormwater Drainage and Treatment Systems

Description of Pollutant

Sources: Facilities include roadside catch basins on arterials and within residential areas, conveyance systems, detention facilities such as ponds and vaults, oil/water separators, biofilters, settling basins, infiltration systems, and all other types of stormwater treatment systems presented in [Volume V](#). Oil and grease, hydrocarbons, debris, heavy metals, sediments and contaminated water are found in catch basins, oil and water separators, settling basins, etc.

Pollutant Control Approach: Provide maintenance and cleaning of debris, sediments, and other pollutants from stormwater collection, conveyance, and treatment systems to maintain proper operation.

Applicable Operational BMPs:

Maintain stormwater treatment facilities per the operations and maintenance (O&M) procedures presented in [Appendix V-A: BMP Maintenance Tables](#) in addition to the following BMPs:

- Inspect and clean treatment BMPs, conveyance systems, and catch basins as needed, and determine necessary O&M improvements.
- Promptly repair any deterioration threatening the structural integrity of stormwater facilities. These include replacement of clean-out gates, catch basin lids, and rock in emergency spillways.
- Ensure adequacy of storm sewer capacities and prevent heavy sediment discharges to the sewer system.
- Regularly remove debris and sludge from BMPs used for peak-rate control, treatment, etc. and discharge to a sanitary sewer if approved by the sewer authority, or truck to an appropriate local or state government approved disposal site.
- Clean catch basins when the depth of deposits reaches 60 percent of the sump depth as measured from the bottom of basin to the invert of the lowest pipe into or out of the basin. However, in no case should there be less than six inches clearance from the debris surface to the invert of the lowest pipe. Some catch basins (for example, WSDOT's *Catch Basin Type 1L* ([WSDOT, 2011](#))) may have as little as 12 inches sediment storage below the invert. These catch basins need frequent inspection and cleaning to prevent scouring. Where these catch basins are part of a stormwater collection and treatment system, the system owner/operator may choose to concentrate maintenance efforts on downstream control devices as part of a systems approach.
- Properly dispose of all solids, polluted material, and stagnant water collected through system cleaning. Do not decant water back into the drainage system from eductor trucks or vacuum equipment since there may be residual contaminants in the cleaning equipment. Do not jet material downstream into the public drainage system.
- Clean woody debris in a catch basin as frequently as needed to ensure proper operation of the catch basin.
- Post warning signs; "Dump No Waste - Drains to Ground Water," "Streams," "Lakes," or emboss on or adjacent to all storm drain inlets where possible.
- Disposal of sediments and liquids from the catch basins must comply with [Appendix IV-B: Management of Street Waste Solids and Liquids](#).

IV-6 Transfer of Liquid or Solid Materials

Source Control BMPs

S409 BMPs for Fueling At Dedicated Stations

Description of Pollutant Sources: A fueling station is a facility dedicated to the transfer of fuels from a stationary pumping station to mobile vehicles or equipment. It includes above or underground fuel storage facilities. Fueling may occur at:

- General service gas stations
- 24-hour convenience stores
- Construction sites
- Maintenance yards
- Warehouses
- Car washes
- Manufacturing establishments
- Port facilities
- Marinas
- Boatyards
- Businesses with fleet vehicles.

Typical causes of stormwater contamination at fueling stations include leaks/spills of fuels, lubrication oils, radiator coolants, and vehicle washwater.

Pollutant Control Approach: New or substantially remodeled* fueling stations must be constructed on an impervious concrete pad under a roof to keep out rainfall and stormwater run-on. The facility must use a treatment BMP for contaminated stormwater and wastewaters in the fueling containment area.

** Substantial remodeling includes (but is not limited to) replacing the canopy, or relocating or adding one or more fuel dispensers in such a way that modifies the Portland cement concrete (or equivalent) paving in the fueling area.*

Applicable Operational BMPs:

- Prepare an emergency spill response and cleanup plan (spill plan) per [S426 BMPs for Spills of Oil and Hazardous Substances](#).
- Train employees on the proper use of fuel dispensers and on the spill plan.
- Have a designated trained person(s) available either on site or on call at all times to promptly

and properly implement the spill plan and immediately cleanup all spills.

- If the fueling station is unattended by a trained person during operating hours, the spill plan must be visible to all customers and untrained employees using the station, and the spill kit must also be accessible and fully stocked at all times.
- The person conducting the fuel transfer must be present at the fueling pump during fuel transfer, particularly at unattended or self-serve stations.
- Keep suitable cleanup materials, such as dry adsorbent materials, on site to allow prompt cleanup of a spill.
- Do not use dispersants to clean up spills or sheens unless properly removed for disposal following application. Dispersants are not allowed to enter storm drains, surface waters, treatment systems, or sanitary sewers.
- Post signs in accordance with the requirements in the Uniform Fire Code (UFC) or International Fire Code (IFC). For example, post “No Topping Off” signs (topping off gas tanks causes spillage and vents gas fumes to the air).
- Make sure that the automatic shut-off on the fuel nozzle is functioning properly.
- Refer to [S439 BMPs for In-Water and Over-Water Fueling](#) for BMPs for in-water or over-water fueling operations

Applicable Structural Source Control BMPs:

For new or substantially remodeled fueling stations:

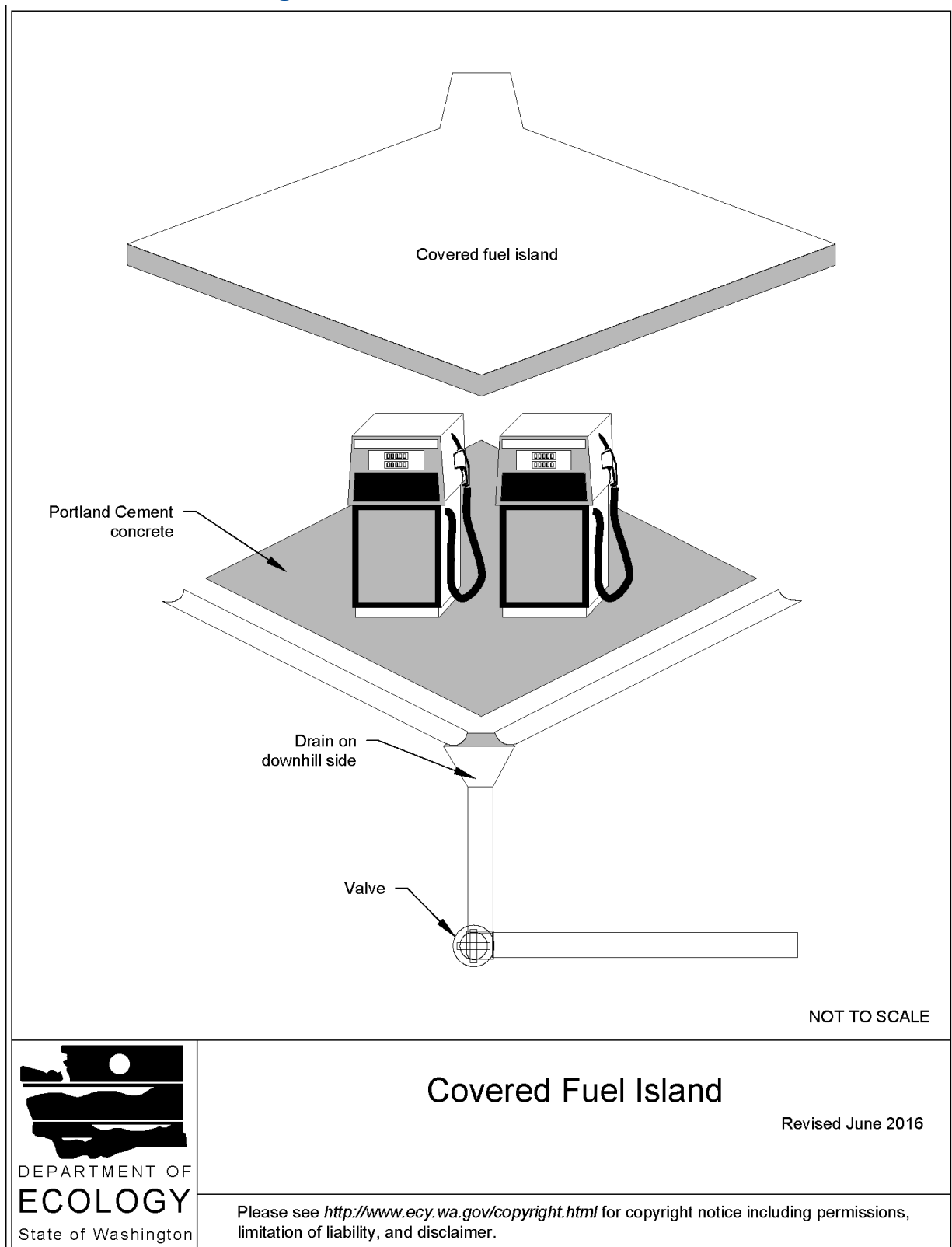
- Design the fueling island to:
 - Minimize stormwater contamination.
 - Control spills (dead-end sump or spill control separator in compliance with the UFC or IFC).
 - Collect stormwater and/or wastewater and direct it to an appropriate treatment system.
- Slope the concrete containment pad around the fueling island toward drains; either trench drains, catch basins and/or a dead-end sump. The slope of the drains shall not be less than 1 percent (Section 7901.8 of the UFC, Section 5703.6.8 of the IFC).
- Drains from containment pads must have a normally closed shutoff valve. The valve may be opened to convey contaminated stormwater to oil removal treatment such as an API or CP oil/water separator (see [V-13 Oil and Water Separator BMPs](#)), catchbasin insert, or equivalent treatment, and then to a basic treatment BMP (as described in [III-1.2 Choosing Your Runoff Treatment BMPs](#)) or to a sanitary sewer, if approved by the sewer authority. Discharges from treatment systems to storm sewer or surface water or to the ground must not display ongoing or recurring visible sheen and must not contain a significant amount of oil and grease.
- The spill control capacity must be sized in compliance with Section 7901.8 of the UFC. The

spill control capacity may be acquired by either an underground system including a sump, or an above ground containment area consisting of a containment pad with berms.

The fueling island may be designed as a spill containment pad with a sill or berm raised to a minimum of four inches (per Section 7901.8 of the UFC) to prevent the runoff of spilled liquids and to prevent run-on of stormwater from the surrounding area. All stormwater collected on the containment pad must discharge to treatment with a normally closed valve downstream of the treatment.

- The fueling pad must be paved with Portland cement concrete, or equivalent. Ecology does not consider asphalt an equivalent material.
- The fueling island must have a roof or canopy to prevent the direct entry of precipitation onto the spill containment pad (see [Figure IV-6.1: Covered Fuel Island](#)). The roof or canopy should, at a minimum, cover the spill containment pad (within the grade break or fuel dispensing area) and preferably extend 3 feet on each side for roofs and canopies 10 feet or less in height and 5 feet on each side for roofs and canopies greater than 10 feet in height. Overhangs reduce the introduction of windblown rain. Measure the overhang relative to the berm or other hydraulic grade break for the spill containment pad.

Figure IV-6.1: Covered Fuel Island



- Convey all roof drains to storm drains outside the fueling containment area.
- Convey stormwater collected on the fuel island containment pad to a sanitary sewer system, if approved by the sanitary authority, or to an approved treatment system such as an oil/water separator and a basic treatment BMP. (Basic treatment BMPs are listed in [III-1.2 Choosing Your Runoff Treatment BMPs](#)). Discharges from treatment systems to storm drains or surface water or to the ground must not display ongoing or recurring visible sheen and must not contain oil and grease.
- Alternatively, collect stormwater from the fuel island containment pad and hold for proper off-site disposal.
- Approval from the local sewer authority is required for conveyance of any fuel-contaminated stormwater to a sanitary sewer. The discharged stormwater must comply with pretreatment regulations ([WAC 173-216-060](#)). These regulations prohibit discharges that could "cause fire or explosion." State and federal pretreatment regulations define an explosive or flammable mixture, based on a flash point determination of the mixture. Stormwater could be conveyed to a sanitary sewer system if it is determined not to be explosive.
- Transfer the fuel from the delivery tank trucks to the fuel storage tank in impervious contained areas and ensure that appropriate overflow protection is used. Alternatively, cover nearby storm drains during the filling process and use drip pans under all hose connections.

Additional BMP for Vehicles 10 feet in height or greater

A roof or canopy may not be feasible at fueling stations that regularly fuel vehicles that are 10 feet in height or greater, particularly at industrial or WSDOT sites. At those types of fueling facilities, the following BMPs apply, as well as the applicable BMPs and fire prevention (UFC requirements) of this BMP for fueling stations:

- If a roof or canopy is impractical, the concrete fueling pad must be equipped with emergency spill control including a shutoff valve for drainage from the fueling area. Maintain the valve in the closed position in the event of a spill. Clean up spills and dispose of materials off-site in accordance with [S426 BMPs for Spills of Oil and Hazardous Substances](#).
- The valve may be opened to convey contaminated stormwater to a sanitary sewer, if approved by the sewer authority, or to oil removal treatment such as an API or CP oil/water separator (see [V-13 Oil and Water Separator BMPs](#)), catchbasin insert, or equivalent treatment, and then to a basic treatment BMP (as described in [III-1.2 Choosing Your Runoff Treatment BMPs](#)). Discharges from treatment systems to storm sewer or surface water or to the ground must not display ongoing or recurring visible sheen and must not contain a significant amount of oil and grease.

S455 BMPs for Spill Prevention and Cleanup

Description of Pollutant Sources: Spills and leaks can damage public infrastructure, interfere with sewage treatment, and cause a threat to human health or the environment. Spills are often pre-ventable if appropriate chemical and waste handling techniques are practiced effectively and the spill response plan is immediately implemented. Additional spill control requirements may be required based on the specific activity occurring on site.

Applicable BMPs:

Spill Prevention

-
- Clearly label or mark all containers that contain potential pollutants.
- Store and transport liquid materials in appropriate containers with tight-fitting lids.
- Place drip pans underneath all containers, fittings, valves, and where materials are likely to spill or leak.
- Use tarpaulins, ground cloths, or drip pans in areas where materials are mixed, carried, and applied to capture any spilled materials.
- Train employees on the safe techniques for handling materials used on the site and to check for leaks and spills.

Spill Plan

- Develop and implement a spill plan and update it annually or whenever there is a change in activities or staff responsible for spill cleanup. Post a written summary of the plan at areas with a high potential for spills, such as loading docks, product storage areas, waste storage areas, and near a phone. The spill plan may need to be posted at multiple locations. Describe the facility, including the owner's name, address, and telephone number; the nature of the facility activity; and the general types of chemicals used at the facility.
- Designate spill response employees to be on-site during business activities. Provide a current list of the names and telephone numbers (home and office) of designated spill response employees who are responsible for implementing the spill plan.
- Provide a site plan showing the locations of storage areas for chemicals, inlets/catch basins, spill kits and other relevant infrastructure or materials information.
- Describe the emergency cleanup and disposal procedures. Note the location of all spill kits in

the spill plan.

- List the names and telephone numbers of public agencies to contact in the event of a spill.

Spill Cleanup Kits

- Store all cleanup kits near areas with a high potential for spills so that they are easily accessible in the event of a spill. The contents of the spill kit must be appropriate to the types and quantities of materials stored or otherwise used at the facility, and refilled when the materials are used. Spill kits must be located within 25 feet of all fueling/fuel transfer areas, including on-board mobile fuel trucks.

Note: Ecology recommends that the kit(s) include salvage drums or containers, such as high density polyethylene, polypropylene or polyethylene sheet-lined steel; polyethylene or equivalent disposal bags; an emergency response guidebook; safety gloves/clothes/equipment; shovels or other soil removal equipment; and oil containment booms and absorbent pads; all stored in an impervious container.

Spill Cleanup and Proper Disposal of Waste

- Stop, contain, and clean up all spills immediately upon discovery.
- Implement the spill plan immediately.
- Contact the designated spill response employees.
- Block off and seal nearby inlets/catch basins to prevent materials from entering the drainage system or combined sewer.
- Use the appropriate material to clean up the spill.
- Do not use emulsifiers or dispersants such as liquid detergents or degreasers unless disposed of properly. Emulsifiers and dispersants are not allowed to be used on surface water, or in a place where they may enter storm drains, surface waters, treatments systems, or sanitary sewers.
- Immediately notify Ecology and the local jurisdiction if a spill has reached or may reach a sanitary or storm sewer, ground water, or surface water. Notification must comply with state and federal spill reporting requirements.
- Do not wash absorbent material into interior floor drains or inlets/catch basins.
- Place used spill control materials in appropriate containers and dispose of according to regulations.

S426 BMPs for Spills of Oil and Hazardous Substances

Description of Pollutant Sources: Washington Administrative Code requires owners or operators of facilities engaged in drilling, producing, gathering, storing, processing, transferring, distributing, refining, or consuming oil and/or oil products to have a Spill Prevention and Emergency Cleanup Plan (SPECP). The SPECP is required if the above ground storage capacity of the facility is 1,320 gallons or more of oil. Additionally, the SPECP is required if the facility, due to its location, could reasonably be expected to discharge oil in harmful quantities, as defined in 40 CFR Part 110, into or upon the navigable waters of the United States or adjoining shorelines {40 CFR 112.1 (b)}. Onshore and offshore facilities, which, due to their location, could not reasonably be expected to discharge oil into or upon the navigable waters of the United States or adjoining shorelines are exempt from these regulations {40 CFR 112.1(d)(1)(i)}. State Law requires owners of businesses that produce dangerous wastes to have a SPECP. These businesses should refer to [Washington State/Federal Emergency Spill Cleanup Requirements](#) (see [I-2.15 Other Requirements](#)). The federal definition of oil is oil of any kind or any form, including, but not limited to petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil.

Pollutant Control Approach: Maintain, update, and implement a Spill Prevention and Emergency Cleanup Plan.

Applicable Operational BMPs:

The businesses and public agencies identified in [Appendix IV-A: Urban Land Uses and Pollutant Generating Sources](#) required to prepare and implement a Spill Prevention and Emergency Cleanup Plan shall implement the following:

- Prepare a Spill Prevention and Emergency Cleanup Plan (SPECP), which includes:
 - A description of the facility including the owner's name and address.
 - The nature of the activity at the facility.
 - The general types of chemicals used or stored at the facility.
 - A site plan showing the location of storage areas for chemicals, the locations of storm drains, the areas draining to them, and the location and description of any devices to stop spills from leaving the site such as positive control valves.
 - Cleanup procedures.
 - Notification procedures used in the event of a spill, such as notifying key personnel. Agencies such as Ecology, local fire department(s), Washington State Patrol, and the local Sewer Authority, shall be notified.
 - The name of the designated person with overall spill cleanup and notification responsibility.
- Train key personnel in the implementation of the SPECP. Prepare a summary of the plan and post it at appropriate points in the building, identifying the spill cleanup coordinators, location of cleanup kits, and phone numbers of regulatory agencies to contact in the event of a spill.
- Update the SPECP regularly.
- Immediately notify Ecology, the local jurisdiction, and the local Sewer Authority if a spill may reach sanitary or storm sewers, ground water, or surface water, in accordance with federal and Ecology spill reporting requirements.
- Immediately clean up spills. Do not use emulsifiers for cleanup unless there is an appropriate disposal method for the resulting oily wastewater. Do not wash absorbent material down a floor drain or into a storm sewer.
- Locate emergency spill containment and cleanup kit(s) in high-potential spill areas. The contents of the kit shall be appropriate for the type and quantities of chemical liquids stored at the facility.

Recommended Additional Operational BMP:

Spill kits should include appropriately lined drums, absorbent pads, and granular or powdered materials for neutralizing acids or alkaline liquids where applicable. In fueling areas: Package absorbent

material in small bags for easy use and make available small drums for storage of absorbent and/or used absorbent. Deploy spill kits in a manner that allows rapid access and use by employees.

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Appendix V-A: BMP Maintenance Tables

Ecology intends the facility-specific maintenance standards contained in this section to be conditions for determining if maintenance actions are required as identified through inspection. Recognizing that Permittees have limited maintenance funds and time, Ecology does not require that a Permittee perform all these maintenance activities on all their stormwater BMPs. We leave the determination of importance of each maintenance activity and its priority within the stormwater program to the Permittee. We do expect, however, that sufficient maintenance will occur to ensure that the BMPs continue to operate as designed to protect ground and surface waters.

Ecology doesn’t intend that these measures identify the facility's required condition at all times between inspections. In other words, exceedance of these conditions at any time between inspections and/or maintenance does not automatically constitute a violation of these standards. However, based upon inspection observations, the Permittee shall adjust inspection and maintenance schedules to minimize the length of time that a facility is in a condition that requires a maintenance action.

Table V-A.1: Maintenance Standards - Detention Ponds

Maintenance Component	Defect	Conditions When Maintenance Is Needed	Results Expected When Maintenance Is Performed
General	Trash & Debris	Any trash and debris which exceed 1 cubic feet per 1,000 square feet. In general, there should be no visual evidence of dumping. If less than threshold all trash and debris will be removed as part of next scheduled maintenance.	Trash and debris cleared from site
	Poisonous Vegetation and noxious weeds	Any poisonous 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. (Apply requirements of adopted IPM policies for the use of herbicides).	No danger of poisonous vegetation where maintenance personnel or the public might normally be. (Coordinate with local health department) Complete eradication of noxious weeds may not be possible. Compliance with State or local eradication policies required
	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. (Coordinate with local health department; coordinate with Ecology Dam Safety Office if pond exceeds 10 acre-feet.)
	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.	Insects destroyed or removed from site. Apply insecticides in compliance with adopted IPM policies
	Tree Growth and Hazard Trees	Tree growth does not allow maintenance and inspection access or interferes with maintenance activity (i.e., slope mowing, silt removal, vactoring, or equipment movements). If trees are not interfering with access or maintenance, do not remove If dead, diseased, or dying trees are identified (Use a certified Arborist to determine health of tree or removal requirements)	Trees do not hinder maintenance activities. Harvested trees should be recycled into mulch or other beneficial uses (e.g., alders for firewood). Remove hazard Trees
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 should be stabilized using appropriate erosion control measure(s); e.g., rock reinforcement, planting of grass, compaction. If erosion is occurring on compacted berms a licensed engineer in the state of Washington should be consulted to resolve source of erosion.
Storage Area	Sediment	Accumulated sediment that exceeds 10% of the designed pond depth unless otherwise specified or affects inletting or outletting condition of the facility.	Sediment cleaned out to designed pond shape and depth; pond reseeded if necessary to control erosion.

Table V-A.1: Maintenance Standards - Detention Ponds (continued)

Maintenance Component	Defect	Conditions When Maintenance Is Needed	Results Expected When Maintenance Is Performed
	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.
Ponds 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 engineer in the state of Washington should be consulted to determine the source of the settlement.	Dike is built back to the design elevation.
	Piping	Discernable water flow through pond berm. Ongoing erosion with potential for erosion to continue. (Recommend a Goethechnical engineer be called in to inspect and evaluate condition and recommend repair of condition.	Piping eliminated. Erosion potential resolved.
Emergency Overflow/Spillway and Berms over 4 feet in height	Tree Growth	Tree growth on emergency spillways creates blockage problems and may cause failure of the berm due to uncontrolled overtopping. 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 should be 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 engineer in the state of Washington should be consulted for proper berm/spillway restoration.
	Piping	Discernable 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.
Emergency Overflow/Spillway	Emergency Overflow/Spillway	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 out flow path of spillway. (Rip-rap on inside slopes need not be replaced.)	Rocks and pad depth are restored to design standards.
	Erosion	See "Side Slopes of Pond"	

Table V-A.2: Maintenance Standards - Infiltration

Maintenance Component	Defect	Conditions When Maintenance Is Needed	Results Expected When Maintenance Is Performed
General	Trash & Debris	See Table V-A. 1: Maintenance Standards - Detention Ponds	See Table V-A. 1: Maintenance Standards - Detention Ponds
	Poisonous/Noxious Vegetation	See Table V-A. 1: Maintenance Standards - Detention Ponds	See Table V-A. 1: Maintenance Standards - Detention Ponds
	Contaminants and Pollution	See Table V-A. 1: Maintenance Standards - Detention Ponds	See Table V-A. 1: Maintenance Standards - Detention Ponds
	Rodent Holes	See Table V-A. 1: Maintenance Standards - Detention Ponds	See Table V-A. 1: Maintenance Standards - Detention Ponds
Storage Area	Sediment	Water ponding in infiltration pond after rainfall ceases and appropriate time allowed for infiltration. Treatment basins should infiltrate Water Quality Design Storm Volume within 48 hours, and empty within 24 hours after cessation of most rain events.	Sediment is removed and/or facility is cleaned so that infiltration system works according to design.

BMP T9.30: Continuous Inflow Biofiltration Swale

Description

In situations where water enters a biofiltration swale continuously along the side slope rather than discretely at the head, a different design approach – the continuous inflow biofiltration swale (this BMP) – is needed. The basic biofiltration swale design presented in [BMP T9.10: Basic Biofiltration Swale](#) is modified by increasing the biofiltration swale length to achieve an equivalent average residence time.

Applications

A continuous inflow biofiltration swale is to be used when inflows are not concentrated, such as locations along the shoulder of a road without curbs.

This design may also be used where frequent, small point flows enter a biofiltration swale, such as through curb inlet ports spaced at intervals along a road, or from a parking lot with frequent curb cuts. In general, no inlet port should carry more than about 10 percent of the flow.

A continuous inflow biofiltration swale is not appropriate for a situation in which significant lateral flows enter a biofiltration swale at some point downstream from the head of the biofiltration swale. In this situation, the biofiltration swale width and length must be recalculated from the point of confluence to the discharge point in order to provide adequate treatment for the increased flows.

Design Criteria

Same as specified for [BMP T9.10: Basic Biofiltration Swale](#) except for the following:

- The design flow for continuous inflow biofiltration swales must include runoff from the pervious side slopes draining to the swale along the entire swale length. Therefore, they must be on-line facilities.
- If only a single design flow is used, the flow rate at the outlet should be used. The goal is to achieve an average residence time through the continuous inflow biofiltration swale of 9 minutes as calculated using the on-line Water Quality Design Flow Rate (as described in [III-2.6 Sizing Your Runoff Treatment BMPs](#)) multiplied by the ratio, K, in [Figure V-7.7: Ratio of SBUH Peak/WQ Flow \(Online\)](#). Assuming an even distribution of inflow into the side of the swale, double the hydraulic residence time to a minimum of 18 minutes.
- For continuous inflow biofiltration swales, interior side slopes above the WQ design treatment elevation shall be planted in grass. A typical lawn seed mix or the seed mixes presented in [BMP T9.10: Basic Biofiltration Swale](#) are acceptable. Landscape plants or groundcovers other than grass may not be used anywhere between the runoff inflow elevation and the bottom of the swale.

Intent: The use of grass on interior side slopes reduces the chance of soil erosion and transfer of pollutants from landscape areas to the continuous inflow biofiltration swale treatment area.

Table V-A.6: Maintenance Standards - Debris Barriers (e.g., Trash Racks)

Maintenance Components	Defect	Condition When Maintenance is Needed	Results Expected When Maintenance is Performed
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.
Metal	Damaged/ Missing Bars.	Bars are bent out of shape more than 3 inches. Bars are missing or entire barrier missing. Bars are loose and rust is causing 50% deterioration to any part of barrier.	Bars in place with no bends more than 3/4 inch. Bars in place according to design. Barrier replaced or repaired to design standards.
	Inlet/Outlet Pipe	Debris barrier missing or not attached to pipe	Barrier firmly attached to pipe

Table V-A.7: Maintenance Standards - Energy Dissipators

Maintenance Com-ponents	Defect	Conditions When Maintenance is Needed	Results Expected When Maintenance is Performed
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 replaced to design standards.
	Erosion	Soil erosion in or adjacent to rock pad.	Rock pad replaced to design standards.
Dispersion Trench	Pipe Plugged with Sediment	Accumulated sediment that exceeds 20% of the design depth.	Pipe cleaned/flushed so that it matches design.
	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 redesigned or rebuilt to standards.
	Perforations Plugged.	Over 1/2 of perforations in pipe are plugged with debris and sediment.	Perforated pipe cleaned or replaced.
	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 or redesigned to standards.
	Receiving Area Over-Saturated	Water in receiving area is causing or has potential of causing landslide problems.	No danger of landslides.
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.
	Other Defects	See Table V-A.5: Maintenance Standards - Catch Basins	See Table V-A.5: Maintenance Standards - Catch Basins

Table V-A.8: Maintenance Standards - Typical Biofiltration Swale

Maintenance Component	Defect or Problem	Condition When Maintenance is Needed	Recommended Maintenance to Correct Problem
General	Sediment Accumulation on Grass	Sediment depth exceeds 2 inches.	Remove sediment deposits on grass treatment area of the bio-swale. When finished, swale should be level from side to side and drain freely toward outlet. There should be no areas of standing water once inflow has ceased.
	Standing Water	When water stands in the swale between storms and does not drain freely.	Any of the following may apply: remove sediment or trash blockages, improve grade from head to foot of swale, remove clogged check dams, add underdrains or convert to a wet biofiltration swale.
	Flow spreader	Flow spreader uneven or clogged so that flows are not uniformly distributed through entire swale width.	Level the spreader and clean so that flows are spread evenly over entire swale width.

Table V-A.8: Maintenance Standards - Typical Biofiltration Swale (continued)

Maintenance Component	Defect or Problem	Condition When Maintenance is Needed	Recommended Maintenance to Correct Problem
	Constant Base-flow	When small quantities of water continually flow through the swale, even when it has been dry for weeks, and an eroded, muddy channel has formed in the swale bottom.	Add a low-flow pea-gravel drain the length of the swale or by-pass the baseflow around the swale.
	Poor Vegetation Coverage	When grass is sparse or bare or eroded patches occur in more than 10% of the swale bottom.	Determine why grass growth is poor and correct that condition. Re-plant with plugs of grass from the upper slope: plant in the swale bottom at 8-inch intervals. Or re-seed into loosened, fertile soil.
	Vegetation	When the grass becomes excessively tall (greater than 10-inches); when nuisance weeds and other vegetation starts to take over.	Mow vegetation or remove nuisance vegetation so that flow not impeded. Grass should be mowed to a height of 3 to 4 inches. Remove grass clippings.
	Excessive Shading	Grass growth is poor because sunlight does not reach swale.	If possible, trim back over-hanging limbs and remove brushy vegetation on adjacent slopes.
	Inlet/Outlet	Inlet/outlet areas clogged with sediment and/or debris.	Remove material so that there is no clogging or blockage in the inlet and outlet area.
	Trash and Debris Accumulation	Trash and debris accumulated in the bio-swale.	Remove trash and debris from bioswale.
	Erosion/Scouring	Eroded or scoured swale bottom due to flow channelization, or higher flows.	For ruts or bare areas less than 12 inches wide, repair the damaged area by filling with crushed gravel. If bare areas are large, generally greater than 12 inches wide, the swale should be re-graded and re-seeded. For smaller bare areas, overseed when bare spots are evident, or take plugs of grass from the upper slope and plant in the swale bottom at 8-inch intervals.

Table V-A.9: Maintenance Standards - Wet Biofiltration Swale

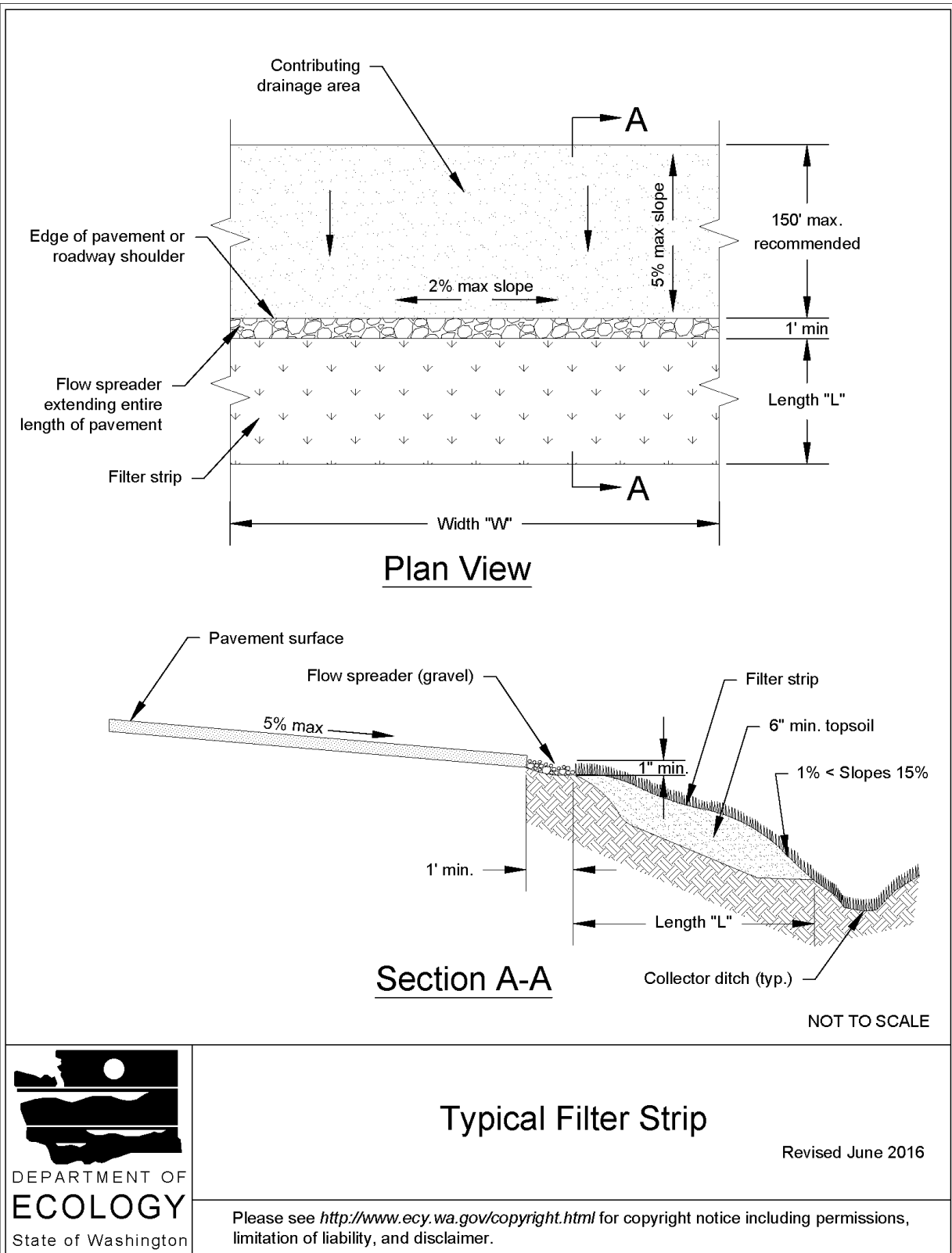
Maintenance Component	Defect or Problem	Condition When Maintenance is Needed	Recommended Maintenance to Correct Problem
General	Sediment Accumulation	Sediment depth exceeds 2-inches in 10% of the swale treatment area.	Remove sediment deposits in treatment area.
	Water Depth	Water not retained to a depth of about 4 inches during the wet season.	Build up or repair outlet berm so that water is retained in the wet swale.
	Wetland Vegetation	Vegetation becomes sparse and does not provide adequate filtration, OR vegetation is crowded out by very dense clumps of cattail, which do not allow water to flow through the clumps.	Determine cause of lack of vigor of vegetation and correct. Replant as needed. For excessive cattail growth, cut cattail shoots back and compost off-site. Note: normally wetland vegetation does not need to be harvested unless die-back is causing oxygen depletion in downstream waters.
	Inlet/Outlet	Inlet/outlet area clogged with sediment and/or debris.	Remove clogging or blockage in the inlet and outlet areas.
	Trash and Debris Accumulation	See Table V-A.1: Maintenance Standards - Detention Ponds	Remove trash and debris from wet swale.
	Erosion/Scouring	Swale has eroded or scoured due to flow channelization, or higher flows.	Check design flows to assure swale is large enough to handle flows. By-pass excess flows or enlarge swale. Replant eroded areas with fibrous-rooted plants such as Juncus effusus (soft rush) in wet areas or snowberry (Symphoricarpos albus) in dryer areas.

BMP T9.40: Vegetated Filter Strip

Description

A vegetated filter strip is flat with no side slopes ([Figure V-7.11: Typical Filter Strip](#)). Contaminated stormwater is distributed as sheet flow across the inlet width of the vegetated filter strip. Runoff Treatment is provided by passage of water over the surface and through grass.

Figure V-7.11: Typical Filter Strip



Applications and Limitations

The vegetated filter strip is typically used on-line and adjacent and parallel to a paved area such as parking lots, driveways, and roadways.

Design Criteria

- Use the design criteria specified in [Table V-7.6: Sizing Criteria for Vegetated Filter Strips](#).
- Vegetated filter strips should only receive sheet flow.
- Use curb cuts ≥ 12 -inch wide and 1-inch above the vegetated filter strip inlet.
- Calculate the design flow depth using Manning's equation as follows:

$$KQ = (1.49AR^{0.67} s^{0.5})/n$$

Substituting for AR:

$$KQ = (1.49Ty^{1.67} s^{0.5})/n$$

Where:

$$Ty = A_{\text{rectangle}}, \text{ ft}^2$$

$$y \approx R_{\text{rectangle}}, \text{ design depth of flow, ft. (1 inch maximum)}$$

Q = peak Water Quality Design Flow Rate as described in [III-2.6 Sizing Your Runoff Treatment BMPs](#), ft³/sec

K = The ratio determined by using [Figure V-7.7: Ratio of SBUH Peak/WQ Flow \(Online\)](#)

n = Manning's roughness coefficient

s = Longitudinal slope of the vegetated filter strip, parallel to the direction of flow

T = Width of the vegetated filter strip, perpendicular to the direction of flow, ft.

A = Vegetated filter strip inlet cross-sectional flow area (rectangular), ft²

R = hydraulic radius, ft.

Rearranging for y:

$$y = [KQn/1.49Ts^{0.5}]^{0.6}$$

y must not exceed 1 inch

Note: As in biofiltration swale design, an adjustment factor of K accounts for the differential between the Water Quality Design Flow Rate calculated by an approved continuous simulation model and the SBUH design flow rate.

- Calculate the design flow velocity V, ft./sec., through the filter strip:

$$V = KQ/Ty$$

V must not exceed 0.5 ft./sec

- Calculate the required length, ft., of the vegetated filter strip at the minimum hydraulic residence time, t, of 9 minutes:

$$L = tV = 540V$$

Table V-7.6: Sizing Criteria for Vegetated Filter Strips

Design Parameter	Vegetated Filter Strip Sizing
Longitudinal Slope	0.01 - 0.33
Maximum velocity	0.5 ft / sec @ K multiplied by the WQ Design Flow Rate
Maximum water depth ¹	1-inch max.
Manning coefficient	0.35
Minimum hydraulic residence time at Water Quality Design Flow Rate	9 minutes
Minimum length	Sufficient to achieve hydraulic residence time in the vegetated filter strip
Maximum sideslope	Inlet edge ≥ 1" lower than contributing paved area
Max. tributary drainage flowpath	150 feet
Max. longitudinal slope of contributing area	0.05 (steeper than 0.05 needs upslope flow spreader and energy dissipation)
Max. lateral slope of contributing area	0.02 (at the edge of the vegetated filter strip inlet)
1. Below the design water depth install an erosion control blanket, at least 4" of topsoil, and the selected biofiltration seed mix. Above the water line use a straw mulch or sod.	

Table V-A.10: Maintenance Standards - Filter Strips

Maintenance Component	Defect or Problem	Condition When Maintenance is Needed	Recommended Maintenance to Correct Problem
General	Sediment Accumulation on Grass	Sediment depth exceeds 2 inches.	Remove sediment deposits, re-level so slope is even and flows pass evenly through strip.
	Vegetation	When the grass becomes excessively tall (greater than 10-inches); when nuisance weeds and other vegetation starts to take over.	Mow grass, control nuisance vegetation, such that flow not impeded. Grass should be mowed to a height between 3-4 inches.
	Trash and Debris Accumulation	Trash and debris accumulated on the filter strip.	Remove trash and Debris from filter.
	Erosion/Scouring	Eroded or scoured areas due to flow channelization, or higher flows.	For ruts or bare areas less than 12 inches wide, repair the damaged area by filling with crushed gravel. The grass will creep in over the rock in time. If bare areas are large, generally greater than 12 inches wide, the filter strip should be re-graded and re-seeded. For smaller bare areas, overseed when bare spots are evident.
	Flow spreader	Flow spreader uneven or clogged so that flows are not uniformly distributed through entire filter width.	Level the spreader and clean so that flows are spread evenly over entire filter width.