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February 2, 2016

Ms. Jill Seale
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SUBJECT: Submittal of Updated Stormwater Pollution Control Plan for the Riverbed Landfill, Riverbend Landfill Company, McMinnville, Yamhill County, Oregon, File Number 106959

Dear Ms. Seale:

Please find enclosed a copy of the updated Stormwater Pollution Control Plan (SWPCP) for the Riverbend Landfill Company's (RLC's), Riverbend Landfill (RL) in McMinnville, Oregon. The updated SWPCP was prepared by SCS Engineers of Portland, Oregon, on behalf of RLC.

Please contact Jeff O'Leary (503/857-5870) if you have any questions or require additional information.

Sincerely,
Riverbend Landfill Company

A handwritten signature in black ink, appearing to read 'James L. Denson, Jr.', written over a horizontal line.

James L. Denson, Jr.
PNW/BC Environmental Protection Manager

Enclosure – RL SWPCP (hardcopy and electronic)

Cc (w/enclosure): Jeff O'Leary, WM
Tim Watson, WM
Lee Brennan, RLC
RL Technical Files

SCS ENGINEERS



Stormwater Pollution Control Plan
Plan Date: February 2016
NPDES 1200-Z Industrial Stormwater
General Permit
File Number: 106959

Common Name: Riverbend Landfill
Legal Name: Riverbend Landfill Company

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On Compact Disk

Complete copy of this Stormwater Pollution Control Plan

ACRONYMS AND ABBREVIATIONS

AST	aboveground storage tank
BMPs	best management practices
CFR	Code of Federal Regulations
DEQ	Oregon Department of Environmental Quality
DMR	discharge monitoring report
ESCM	Erosion and Sediment Control Manual
EPA	U.S. Environmental Protection Agency
LCRS	leachate collection and removal system
MSDS	material safety data sheet
NPDES	National Pollutant Discharge Elimination System
OAR	Oregon Administrative Rules
OERS	Oregon Emergency Response System
Permit	NPDES 1200-Z Industrial Stormwater General Permit
RLC	Riverbend Landfill Company
RL	Riverbend Landfill
SCS	SCS Engineers
SIC	standard industrial classification
SPCCP	Spill Prevention, Control, and Countermeasures Plan
SPRPs	spill prevention and response procedures
SWDP	solid waste disposal site permit
SWPCP	stormwater pollution control plan
TMDL	total maximum daily load

1.0 INTRODUCTION

This stormwater pollution control plan (SWPCP) was prepared for the Riverbend Landfill (RL) on behalf of the Riverbend Landfill Company (RLC) by SCS Engineers (SCS) in Portland, Oregon. This SWPCP was prepared in accordance with the requirements of National Pollutant Discharge Elimination System (NPDES) 1200-Z Industrial Stormwater General Permit (Permit) (see Appendix A), issued by the Oregon Department of Environmental Quality (DEQ) effective June 13, 2013. This SWPCP updates and supersedes the previous SWPCP dated March 2012 that was originally prepared as part of the Permit renewal process and subsequent revisions. As part of the requirement of renewing the Permit in 2012, RLC submitted a Permit renewal application form to the DEQ (see Appendix B).

1.1 SITE LOCATION AND HISTORY

RL is located approximately three miles southwest of McMinnville, Oregon, in Yamhill County (see Figure 1-1). The permitted landfill occupies an area of approximately 87.4 acres of the 500 plus acre property (see Figure 1-1). The South Yamhill River borders the landfill on the south. Agricultural land and buildings surrounds the site on the north, west, and east. A recreation vehicle park is located between the south and north poplar tree farms west of the landfill property. RL is owned and operated by RLC, a wholly owned subsidiary of Waste Management, and is permitted to receive municipal solid waste and approved special waste under Solid Waste Disposal Site Permit (SWDP) No. 345, issued by the DEQ. RL has been owned and operated by RLC since 1999 and before that time, it was operated in a similar manner under other ownership.

RL consists of nine constructed landfill modules (Modules 1 through 9) (see Figure 1-2). In 2014, site development included the construction of a new front entrance facility consisting of public drop off area (see Figure 1-3).

1.2 STORMWATER POLLUTION CONTROL PLAN CERTIFICATION

This SWPCP was prepared and reviewed by persons knowledgeable of stormwater management and familiar with RL. This SWPCP is signed and certified in accordance with 40 Code of Federal Regulations (CFR) 122.22 and the SWPCP Certification is provided in Appendix C.

1.3 STORMWATER POLLUTION CONTROL PLAN REVISION AND REVIEW RECORD

RLC will maintain this SWPCP consistent with site conditions and update the SWPCP, as necessary, to reflect changes to the site. Updates to the SWPCP are required within 30 days of making changes at the site. A record of the SWPCP reviews and revisions will be documented in Table 1-1.

Some revisions to the SWPCP are not required to be submitted to the DEQ. The revisions to the SWPCP that are required to be submitted to the DEQ include:

- Changes to site contact information.
- Responses to corrective actions or inspections.
- Changes to site or control measures that may (1) significantly alter the nature of potential pollutants present in stormwater discharge or (2) significantly increase the potential pollutant(s) levels, stormwater discharge frequency, and stormwater discharge volume or flow rate.
- Changes to the stormwater discharge monitoring locations or outfalls.

RLC will submit the applicable revised pages of the SWPCP and site map to the DEQ within 30 days of making the revisions. DEQ review and approval of the SWPCP revisions prior to implementing these revisions is not required, except if changing the location of a discharge monitoring point. Consequently, a proposed change to the stormwater discharge monitoring location at RL will be performed in consultation with the DEQ. If RLC does not receive a response from the DEQ within 30 days (from DEQ's receipt of the submittal) to revisions of the SWPCP, then the revisions are deemed accepted by the DEQ.

Additionally, the DEQ may require RLC to revise the SWPCP at any time (e.g., modification to the renewed Permit). RLC must submit the updated SWPCP in response to DEQ's request within 30 days, unless a different schedule is approved by the DEQ.

1.4 STORMWATER POLLUTION CONTROL PLAN AVAILABILITY

The SWPCP and any revisions made to the SWPCP must be kept at RL and made available to the DEQ upon request.

1.5 STORMWATER POLLUTION CONTROL PLAN TEAM

The SWPCP Team is assigned the role of implementing the requirements of the SWPCP at RL. The participation and cooperation of all employees involved with handling and management of potential pollutants is essential in implementing, maintaining, reviewing, and revising the SWPCP to accomplish the objectives of this plan. SWPCP Team members and a general description of their responsibilities are provided in Table 1-2.

1.6 STORMWATER POLLUTION CONTROL PLAN ORGANIZATION

The remainder of this SWPCP is organized as follows:

- Section 2 provides a site description including the site industrial activities.
- Section 3 describes best management practices (BMPs) and control measures employed at RL.
- Section 4 describes the RL spill prevention and response procedures (SPRPs).
- Section 5 describes the RL stormwater monitoring plan including stormwater discharge sampling and inspection requirements.
- Section 6 describes the corrective actions related to exceedances of benchmark and/or numeric effluent limits, if applicable.
- Section 7 summarizes the reporting and record keeping requirements related to the SWPCP and Permit.

A complete electronic copy of this SWPCP is also provided on the compact disk attached to the back cover of this document.

2.0 SITE DESCRIPTION

RL is located at 13469 SW Highway 18, McMinnville, Yamhill County, Oregon (see Figure 1-1). The RL property is bordered to the north, east, and west by agricultural land and buildings and to the east and southeast by the Yamhill River. Land use within a 1-mile radius of the site is predominantly agricultural.

RL currently consists of nine landfilling areas identified as Module 1 through 9 (see Figure 1-2). Modules 1 through 7 are inactive areas and Modules 8 and 9 are the active area of the site that currently receives landfill wastes.

Figure 1-2 shows the RL site details including topography, property boundary, stormwater drainage and conveyance, site control measures, site buildings, site access roads, vehicle and equipment storage areas, significant material storage areas, and active and inactive landfill modules.

2.1 SITE DRAINAGE AREAS, CONVEYANCE SYSTEMS, AND OUTFALL LOCATIONS

2.1.1 Drainage Areas

Stormwater drainage at RL is divided into six drainage areas designated as Drainage Areas 1 through 6, as shown on Figure 1-2¹. The RL Drainage Areas 1 through 6 and their corresponding outfall locations are described below.

Drainage Area 1. Drainage Area 1 is located in the northwest portion of the site and is 679,158 square feet. Drainage Area 1 encompasses several facility buildings (office, scale house, landfill gas-to-energy, temporary maintenance building, and storage warehouse), a small portion of the northern section of landfill Module 8, the entrance facility, leachate storage tanks, the asphalt-paved entrance, access road to the site, the asphalt-paved office parking lot, gravel-covered areas, and wheel-wash facility (see Figure 1-3). Drainage Area 1 also contains one sedimentation basin (1B) (see Figure 1-3). Sedimentation Basin 1B receives stormwater from a portion of the front entrance facility paved and unpaved areas near the scale house and associated site access roads.

Stormwater in the northeastern portion of Drainage Area 1 is a non-point source discharge that infiltrates into the ground and does not discharge off-site (see Figure 1-2). Additionally, the western portion of Drainage Area 1 includes stormwater sheet flow (non-point source discharge) from the asphalt-paved facility entrance which is conveyed into the drainage ditch along SW Highway 18. This drainage ditch also receives stormwater sheet flow from SW Highway 18. The northwestern portion of Drainage Area 1 near the office includes two catch basins in the asphalt-paved administration building parking lot which is not exposed to site industrial activities. These catch basins convey stormwater to the drainage ditch along SW Highway 18. Additionally, the western portion of Drainage Area 1 includes stormwater sheet flow from the asphalt-paved facility entrance and site

¹ It should be noted that Figure 1-2 illustrates the current stormwater flow directions, conveyance system, detention areas, and outfall locations. However, the site topography and surface drainage patterns on portions of RL may change as site operations and facility development continues in the future.

access road, which enters the site drainage ditch and is conveyed into the drainage ditch along SW Highway 18. The Drainage Area 1 outfall locations (Outfalls 1A and 1B) are located within the drainage ditch along SW Highway 18, at the end of each catch basin discharge pipe. Stormwater discharge from Outfalls 1A and 1B are not exposed to the industrial activities (e.g., public recycling) conducted in Drainage Area 1 and are consequently not representative of stormwater discharge in Drainage Area 1. Representative stormwater discharge from Drainage Area 1 is monitored at Outfall 1C (as described below) because stormwater discharge at this location is exposed to the industrial activities within Drainage Area 1 (e.g., vehicle traffic and recycling materials).

Stormwater in the central portion (front entrance facility) of Drainage Area 1 is conveyed to a water quality swale in the north-central end of Drainage Area 1 by a series of catch basins, piping, and drainage ditches (see Figure 1-3). The water quality swale is designed such that not all storm events are expected to generate stormwater discharge from this facility. If stormwater discharges from the water quality swale, then stormwater is conveyed to the stormwater dispersion trench just north of the water quality swale. Similar to the water quality swale, the stormwater dispersion trench is designed such that not all storm events are expected to generate stormwater discharge from this control structure. If stormwater discharges from the stormwater dispersion trench (Outfall 1C), then stormwater is conveyed from Outfall 1C to ground surface and eventually to the Unnamed Creek along the north property boundary (see Figure 1-3).

Drainage Area 2. Drainage Area 2 is located in the south-southwest portion of the site and is 1,718,638 square feet. Drainage Area 2 includes the asphalt paved mechanically-stabilized earthen (MSE) Berm Phase 1A area, landfill equipment, and site access roads comprised of compacted gravel. It also contains inactive landfill Modules 1, 2, and 3, portions of inactive landfill Modules 4, and 5, and portions of active landfill Modules 8 and 9. Landfill Modules 1, 2 and 3 comprise 10.96 acres (477,418 square feet) of Drainage Area 2 and are constructed to final grade with final vegetated cover in place.

Within Drainage Area 2, a series of conveyance ditches and piping that direct stormwater to Detention Pond 1. The capacity of Detention Pond 1 was increased in the winter/spring 2014 as part of ongoing site development activities. Detention Pond 1 is designed with an outlet pipe located in the southwest portion of the Detention Pond 1 that conveys stormwater from the pond to Outfall 2, if the water level within the pond reaches the outlet pipe. Due to the large size of Detention Pond 1, most storm events are not expected to generate discharge at Outfall 2, and stormwater that accumulates in Detention Pond 1 will either infiltrate into the ground or evaporate. Outfall 2 discharges into the Unnamed Drainage located in the south portion of the site.

Drainage Area 3. Drainage Area 3 is located in the south-central portion of the site and consists solely of portions of inactive landfill Modules 3 and 4 (191,590 square feet area) that are constructed to final grade with final vegetated cover in place. No other industrial activities are located on this area. Stormwater either permeates the final cover or sheet flows over the Modules 3 and 4 vegetative cover to a drainage ditch which conveys stormwater to a drainage pipe (Outfall 3) in the southwest section of Drainage Area 3. Outfall 3 discharges to the ground within the southern portion of the property and does not discharge off-site.

Drainage Area 4. Drainage Area 4 is located in the north-central and northeast portions of the site and consists of inactive landfill Modules 5, 6, 7, and 8A, site access roads comprised of compacted gravel (622, 415 square feet area). Approximately 6.4 acres (278,874 square feet) of Modules 6 and 7 in the Drainage Area 4 area are constructed to final grade with final vegetated cover in place. The remaining areas of inactive landfill Modules 5, 6, and 7 have intermediate cover that includes an established vegetative layer.

Stormwater either permeates into the vegetative top layer of the final and intermediate covers or sheet flows over the vegetative cover to a series drainage ditches and piping which convey stormwater to the north perimeter drainage ditch. The north perimeter drainage ditch conveys stormwater to the east and discharges to the Unnamed Creek at Outfall 4.

Drainage Area 5. Drainage Area 5 is located in the southeastern section of the site and consists entirely of portions of inactive landfill Modules 4, 6, and 7 (472,894 square feet area). No other industrial activities are located in this area. Drainage Area 5 contains approximately 3.6 acres (approximately 156,816 square feet) of landfill Modules 4, 6, and 7 constructed to final grade with final vegetated cover in place. Stormwater either permeates the top portion of the final and intermediate covers or sheet flows over these covers to a series of drainage ditches and piping (Outfalls 5A and 5B) which convey stormwater to the southeastern portion of the property where it discharges to the ground and does not discharge off-site.

Drainage Area 6. Drainage Area 6 is located in the west-central portion of the site and is 1,609,318 square feet. Drainage Area 6 includes the recently constructed, asphalt paved MSE Berm Phase 1B area, active haul road, northern section of active landfill Module 8D, and inactive Module 5 (see Figure 1-2). Drainage Area 6 also contains Sedimentation Basin 1A (see Figure 1-3) and Detention Pond 2 (see Figure 1-2). Sedimentation Basin 1A receives stormwater from a series of drainage ditches and conveyance piping from a majority of Drainage Area 6. Stormwater in Sedimentation Pond 1A is conveyed by a drainage ditch to Detention Pond 2, which is designed with an outlet pipe (located in the southeasterly portion of the pond). This outlet pipe conveys stormwater from the pond to a drainage swale through the existing north poplar tree farm area to Outfall 6, if the water level within the pond reaches the outlet pipe. Due to the large size of Detention Pond 2, most storm events are not expected to generate discharge at Outfall 6, and stormwater that accumulates in Detention Pond 2 will either infiltrate into the ground or evaporate. In the event discharge does occur, it will be conveyed to Outfall 6 where stormwater discharges into the Unnamed Drainage located south of the north poplar tree farm area (see Figure 1-2).

2.1.2 Stormwater Management in Drainage Areas

RLC has two stormwater management procedures depending on the type of the stormwater being managed on the site drainage basins as described below.

Non-Contaminated Stormwater.² Under normal operating conditions, stormwater run-off discharging at the site outfalls is non-contaminated stormwater. As such, RL follows the Statewide and Sector-Specific Benchmark monitoring programs for all site outfalls as further discussed in Sections 5.2.1 and 5.2.3, respectively.

Contaminated Stormwater.³ Contaminated stormwater discharging at the outfalls is not likely during normal operating conditions at RL. If a potential source of contaminated stormwater is identified in a drainage area (e.g., leachate outside of the leachate collection and removal system [LCRS]) during a routine facility inspection, then the actions described in Section 3.4 will be implemented. All contaminated stormwater identified outside of the LCRS at the site will be contained and will not discharge off-site at the site stormwater outfall locations. Instead, it will be pumped to the site's leachate storage pond or tanks where it is eventually truck hauled to an approved permitted off-site facility for disposal similar to the liquids managed in the site's LCRSs (see Section 2.2.2).

2.1.3 Impervious Areas

RL property consists of approximately 500 acres (approximately 21,780,000 square feet) with approximately 87.4 acres (3,702,600 square feet) permitted for landfilling. RL is divided into five drainage areas and the impervious sections within each drainage area are as follows:

- Drainage Area 1 is 679,158 square feet with approximately 250,000 square feet of impervious area. The impervious areas include the facility buildings (office, landfill gas-to-energy, scale facility, temporary maintenance building, and a storage warehouse), the asphalt-paved entrance, parking areas, public drop-off area, and access roads.
- Drainage Area 2 is 1,718,638 square feet with approximately 160,000 square feet of impervious area. The impervious areas include the asphalt paved MSE Berm Phase 1A, compacted gravel areas, and site access roads comprised of compacted gravel.
- Drainage Area 3 is 191,590 square feet with approximately 36,000 square feet of impervious area. The impervious areas include site access roads comprised of compacted gravel.
- Drainage Area 4 is 622,415 square feet with approximately 16,000 square feet of impervious area. The impervious area includes site access roads comprised of compacted gravel.

² Schedule E Subpart L of the Permit defines non-contaminated stormwater that does not come into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater. Non-contaminated stormwater includes stormwater that flows off the cap, cover, intermediate cover, daily cover, and/or final cover of the landfill.

³ Schedule E Subpart L of the Permit defines contaminated stormwater as stormwater that comes into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater. Some areas of a landfill that may produce contaminated stormwater include, but are not limited to (1) the open face of an active landfill with exposed waste (no cover added); (2) the areas around wastewater treatment operations; (3) trucks, equipment, or machinery that has been in direct contact with the waste; and (4) waste dumping areas.

- Drainage Area 5 is 472,894 square feet with approximately 40,000 square feet of impervious area. The impervious areas include site access roads comprised of compacted gravel.
- Drainage Area 6 is 1,609,318 square feet with approximately 200,000 square feet of impervious area. The impervious areas include the asphalt paved MSE Berm Phase 1B, compacted gravel areas and site access roads comprised of both paved and compacted gravel surfaces.

An additional impervious area which does not contribute to stormwater discharge is the leachate pond (approximately 184,800 square feet) located in the southwest portion of the site (see Figure 1-2).

2.1.4 Receiving Body of Water

The first receiving surface water bodies for the stormwater discharge at RL are (1) the Unnamed Creek which receive discharge from Outfalls 1C and Outfall 4 and (2) the Unnamed Drainage which receives discharge from Outfall 2 and Outfall 6 (see Figure 1-2). The Unnamed Drainage and the Unnamed Creek flow to the South Yamhill River which borders the facility property to the south and southeast (see Figure 1-2).

2.1.5 Stormwater Run-On

RL was evaluated to determine if run-on water from other sources may be present in the site's stormwater discharge. The stormwater discharge that exits at the site outfall locations do not contain run-on from off-site sources.

2.1.6 Description of Wells and Surface Water Bodies on Site or Adjacent to the Site

RL has installed a groundwater monitoring well network at the site to meet the requirements of the SWDP. The groundwater monitoring well network is shown on Figure 1-2. Additionally, production water wells PW-1 and MB-1 are located near the entrance of the facility (see Figure 1-2). The site wells are constructed with above ground completions and well seals that prevent stormwater from infiltrating into the well casings or boreholes.

Additional surface water bodies that are located on or adjacent to RL include the Unnamed Drainage which traverse the south section of the RL property and the Unnamed Creek that is adjacent to the north and east RL property boundary (see Figure 1-2). The Unnamed Drainage and the Unnamed Creek flow to the South Yamhill River.

2.1.7 Authorized Non-Stormwater Discharges

The Permit allows for authorized non-stormwater discharges and a list of these authorized non-stormwater discharges is provided in Appendix D. Currently, authorized non-stormwater discharges at RL include condensate from air conditioner units in the site buildings. Additionally, a part of the operational activities at the site, RL uses a water truck (with potable water) for dust suppression on the

facility access roads. However, the volume of condensate from the air conditioner units and water used for dust suppression does not create discharge at the site outfall locations.

2.1.8 Unauthorized Non-Stormwater Discharges

The Permit does not allow for unauthorized non-stormwater discharges. If unauthorized non-stormwater discharges (e.g., uncontrolled leachate migration) are identified at the facility, RLC must eliminate such discharges. Currently, there are no unauthorized non-stormwater discharges at RL.

Consistent with the requirements of Schedule E Subpart L.2.3 of the Permit (see Appendix A), RLC will test and confirm that no unauthorized non-stormwater discharges are present at the facility. This can be done by performing a dry season inspection (i.e., test) for unauthorized non-stormwater discharges. RLC will perform a dry season inspection at the site outfall locations at least annually, and if possible, after at least seven consecutive days of no precipitation. The inspection will include observations for discharge at each outfall. If a discharge is observed at any of the outfalls during the dry season inspection, then observations for the presence of sheen, floating solids, color, foam, odor, and approximate flow rate will be recorded on the annual non-stormwater discharge inspection form (see Appendix D). The source of the non-stormwater discharge must be identified to determine if it is an authorized or unauthorized discharge. If an unauthorized discharge is discovered, DEQ must be notified and the discharge must be either permitted or eliminated.

2.2 SITE INDUSTRIAL ACTIVITIES

RL is a non-hazardous landfill (standard industrial classification [SIC] code 4953) that accepts municipal solid waste, non-hazardous industrial waste, and recyclable materials, consistent with the site's SWDP. Equipment and vehicles used in RL operations are maintained on-site inside the maintenance building or over lined portions of the landfill.

RL performs the following industrial activities:

- Hauling of solid waste from the facility scale house located near the main entrance of the facility to the composite-lined active portion of the landfill (Module 9) for disposal.
- Disposing and compacting solid waste in composite-lined active portion of the landfill (Module 9).
- Accepting recyclable materials at the public drop off area in the front entrance facility, including paper, metals, glass, used batteries, tires and electronic waste. Recyclable material are collected, sorted, stored and transferred from the site to respective recycling markets.
- Storing and staging of transport containers designed for managing solid waste and recyclable materials.

- Managing and disposing of leachate, including the (1) storage of leachate in the leachate pond and holding tanks and (2) truck hauling leachate to permitted wastewater treatment facilities.
- Operating a vehicle wheel-wash facility.
- Operating the landfill gas management system, including the operation of a landfill gas-to-energy facility.
- Maintaining, repairing, and washing of equipment and vehicles utilized for facility operations. Maintenance occurs in the maintenance buildings or on the lined portions of the active landfill modules. Maintenance operations generate used oil, antifreeze, hydraulic fluids, parts, tires, batteries, and miscellaneous waste. The non-hazardous materials are disposed of on-site and the hazardous materials are recycled to the appropriate recycling facility.
- Storing and loading/unloading diesel fuel, used oil, antifreeze, motor oil, and hydraulic fluid related to maintenance of the site equipment and vehicles.
- Performing earth and soil moving in the former north poplar tree farm area and at times from the borrow area located in south portion of the site which is currently inactive. The soil from the borrow areas are used for interim and daily landfill cover material.
- Performing site construction activities related to cell construction, development, and closure, and site maintenance including interim and daily landfill cover placement.
- Parking for operations equipment and employee vehicles.

RL conducts wet fueling of operations equipment as needed at the site. The fueling takes place at the following locations (1) above composite lined landfill modules and (2) at the bulk tanks located near the maintenance building. If a spill caused by the fueling operations on the composite-lined modules of the landfill were to occur, the fuel material would be contained within areas of the landfill managed by RL's existing LCRSs.

2.2.1 Industrial Activities Exposed to Stormwater

Site industrial activities that are conducted in uncovered areas exposed to stormwater include the following (see Figure 1-2):

- Hauling waste on site access roads.
- Disposing and compacting of waste in active landfill Modules 8 and 9.
- Accepting and staging of recyclable materials in the front entrance facility before the materials are transferred off-site.

- Managing of the LCRSs, including truck hauling leachate to a wastewater treatment facility.
- Operating a vehicle wheel-wash facility.
- Operating the landfill gas management system.
- Maintaining, fueling and parking of site operations equipment and vehicles on the lined landfill modules area.
- Performing earth and soil moving in borrow areas.
- Placing interim and daily cover material in the active Modules 8 and 9 landfill areas.
- Parking of employee vehicles.

Stormwater exposed to those industrial activities performed on the lined landfill modules would be contained within areas of the landfill managed by RL's existing LCRSs.

2.2.2 Leachate Management System and Management of Contaminated Stormwater

Stormwater that comes in contact with waste in the active portion of the landfill (i.e., Module 9) is defined by the Permit as contaminated.³ The contaminated stormwater is actively collected, diverted and managed by the use of temporary swales, sumps or other diversion structures and discharged into landfill's LCRSs, consistent with RL's SWDP No. 345, and does not discharge at the site's non-contaminated stormwater outfall locations.

Leachate collected by the LCRS beneath in Modules 1 to 5 (encompassing 39.0 acres) drains to leachate Sump 1/5P on the south side of Module 4. Leachate collected by the LCRS beneath Modules 6 and 7 (encompassing 15.2 acres) drains to leachate Sump 6/7P on the south side of the modules. Leachate collected by the LCRS beneath in Module 8 (covering 30.9 acres) drains to leachate Sump 8P located in the northeast corner of this module. Leachate collected by the LCRS beneath active Module 9 (encompassing 2.3 acres) drains to primary leachate Sump 9P located in the west end of this module. Each sump (1/5P, 6/7P, 8P, and 9P) is constructed with sideslope risers and is equipped with a dedicated submersible pumps that discharge to a leachate header that conveys leachate into the leachate pond for storage and eventual truck hauling off-site to a permitted and approved discharge location for disposal.

Modules 4 through 9 are additionally constructed with a secondary collection systems that drain to their respective sumps (i.e., Sumps 4/5S, 6/7S, 8S, and 9S). These secondary sumps are located below primary leachate sumps. The LSCS sumps are constructed with sideslope risers and are equipped with dedicated submersible pumps that discharge to the corresponding primary leachate sumps.

The LCRSs collect leachate from individual landfill modules and route the leachate to a double-lined containment pond. Leachate is temporarily stored in the leachate pond and is then tanker-truck hauled to several permitted and approved off-site locations for disposal.

If contaminated stormwater is identified outside of the LCRS, then it will be contained to prevent discharging off-site at the site stormwater outfall locations. Similar to how liquids in the LCRS are managed, contaminated stormwater outside of the LCRS will be pumped to and temporarily stored in site's leachate storage pond or tanks and then tanker-truck hauled to one of several permitted and approved off-site locations. The BMPs related to potential contaminated stormwater outside of the LCRS is described in Section 3.4.

2.2.3 Significant Material Handling Activities and Areas

Maintenance of landfill vehicles and equipment requires the use and storage of lubricating oils, hydraulic oils, coolants, and automotive parts. Maintenance activities generate used oil, used antifreeze, parts cleaning solvents, used parts, batteries, wash-water, and miscellaneous solid waste. Additionally, the operation of the landfill gas-to-energy facility requires the use of engine oil (new and used) and engine coolant.

Managing wastes and recyclables from third parties generates wastes, recyclables, and, on occasion, unacceptable materials. If unacceptable materials are identified, they are removed from the waste stream and staged indoors within the facility warehouse building until they can be properly disposed (see Figure 1-3).

A list of areas where significant materials stored in ASTs and drums at RL that are regulated under provisions of 40 CFR Part 112 is provided below. The locations of these materials are shown in Figure 1-2.

- **Maintenance Building.** Tank 1 (400 gallon used oil AST), Tank 2 (275 gallon engine oil AST), Tank 3 (275 gallon hydraulic fluid AST), and Tanks 4 and 5 (275 gallon transmission fluid AST each) is located in the maintenance building and used for maintenance to facility operations vehicles and equipment. Additionally, there are several 55-gallon drums (approximately 15) stored in the maintenance building that contain new and used oil, hydraulic fluid, transmission fluid, gear oil, diesel, and new and used antifreeze. Petroleum-based solvents (less than 5 gallons) are stored in the maintenance building and used for mechanical parts degreasing and equipment cleaning. These solvents do not come in contact with stormwater.
- **Outdoor Tank Area.** Tanks 7A, 7B, and 11 (6,000 gallon diesel AST, 1,000 gallon unleaded gasoline AST, and 1,190 gallons diesel AST, respectively) are located outside of the maintenance building and used to fuel facility operations vehicles and equipment.
- **Recycling Area.** Tank 10 (used oil AST) is located near the maintenance shop and receives small volumes (1 to 5 gallons) from the public.
- **Landfill Gas-to-Energy Facility.** Tank 12, 13, and 14 (1,350 gallon engine oil, 1,350 gallon used engine oil, and 675 gallon engine coolant ASTs, respectively) are located in the landfill gas-to-energy facility and used for the operation of this facility.

2.2.4 Potential Pollutant Sources

A summary of pollutant sources and potential pollutants in stormwater discharge related to the RL industrial activities are provided in Table 2-1. Many of these pollutant sources related to industrial activities (e.g., storage of landfill operations equipment and vehicles) at RL are located on the composite-lined portion of the landfill and any potential pollutants from these industrial operations would be contained within areas managed by RL's existing LCRSs.

3.0 BEST MANAGEMENT PRACTICES AND CONTROL MEASURES

This section discusses development, implementation, and maintenance of site-specific control measures (i.e., BMPs) used to meet the requirements of Schedule A (Technology Based Effluent Limitations) and Schedule E Subpart L.2 (Additional Technology Based Effluent Limitations) of the Permit (see Appendix A). These BMPs include operational, structural and treatment measures that minimize or eliminate exposure of pollutants to stormwater, or remove pollutants from stormwater before it discharges from RL.

3.1 OPERATIONAL BEST MANAGEMENT PRACTICES

Operational BMPs for source control are non-structural practices that reduce or prevent pollutants from entering stormwater at the facility. Examples of operational BMPs include proper housekeeping and preventive maintenance which provide practical, cost-effective methods for eliminating or minimizing the amount of potential sources of pollutants in stormwater discharge.

3.1.1 Employee Training and Education

The SWPCP employee training program at RL was developed to inform and educate site personnel who (1) work in areas where industrial materials or activities are exposed to stormwater, and/or (2) are responsible for implementing the necessary activities to meet the conditions of the Permit. Employees who meet the above mentioned criteria will be given the SWPCP training within the 30 calendar days of being hired and annually thereafter. SWPCP training will be given by members of the SWPCP Team and/or their designees and documented on the SWPCP training record form or similar form (see Appendix E). The SWPCP training record forms will be maintained with the SWPCP files or the site's employee training record files.

SWPCP training will cover site-specific control measures used to meet the conditions of the Permit which include:

- BMPs and control measures.
- Spill prevention and response procedures.
- Good housekeeping practices.
- Inspection and monitoring requirements.
- Reporting and recordkeeping requirements.

3.1.2 Routine Housekeeping Activities

Proper housekeeping practices provide practical, cost-effective methods for eliminating or minimizing the exposure of stormwater to potential sources of pollutants. Protocols for proper housekeeping reduce the potential for mishandling of materials and equipment while maintaining a safe and efficient work environment.

Routine housekeeping practices conducted at RL are presented in employee training and include:

- Proper storage and labeling of petroleum products and other materials.
- Prompt cleanup of leaks and spills of pollutants (liquid or solid) from site operations.
- Prevention of accumulation of liquid or solid materials on the ground near storage areas.
- Proper maintenance of site equipment and vehicles.
- Routine litter cleanup throughout the site and proper disposal of waste materials.
- Performing adequate dust suppression activities on non-paved access roads and soil stockpiles

Site personnel inspect areas of industrial activities throughout the work day, with additional documented inspections occurring at least monthly (see Appendix F; Monthly Inspection Report Form). In general, housekeeping needs at RL are addressed routinely throughout the work day.

3.1.3 Preventative Maintenance Program

The RL preventative maintenance program involves routine (i.e., monthly) inspections and maintenance of the facility's industrial equipment and the stormwater conveyance system. The preventative maintenance program is designed to ensure that the industrial equipment is in good operating condition and prevent leaks and other releases of potential pollutants. Inspections related to the preventative maintenance program are documented on the Monthly Inspection Report Form (see Appendix F).

Preventive maintenance activities at RL include:

- Inspecting the landfill's LCRSs to ensure they are functioning properly and preventing leachate from comingling with stormwater.
- Inspecting (and repairing if necessary) the intermediate and final covers of the active and inactive landfill cells to minimize the effects of erosion and settlement.
- Using drip buckets/pans to collect leaks and spills from equipment and vehicles when draining or replacing lubricating oils or other equipment fluids.

- Storing spill response materials (i.e., drip buckets/pans, secondary containment bins, etc.) and spill kits in a location where they are readily accessible during spill response. Spent spill response materials will be disposed of in accordance with the applicable regulations and replaced with new or cleaned materials. Currently, spill kits are stored in the maintenance building, landfill gas-to-energy facility, and outdoor fueling areas.
- Using storage tanks equipped with shutoff valves, pumps, or controls to limit accidental spills whenever possible. Master flow and drain valves permitting direct discharge from storage tanks will be securely locked in the closed position when in non-operating status.
- Disposing of oily rags and other oily wastes into closed and labeled containers. Waste materials generated at RL are disposed or recycled, consistent with applicable regulations, by a third party on an approximate monthly schedule.
- Storing liquids in compatible containers. Containers should be rigid and durable, corrosion resistant to the weather and fluid content, non-absorbent, water tight, rodent-proof, and equipped with a close-fitting cover.
- Inspecting the sediment control wheel-wash facility and its contingency overflow catch basin to ensure these structures are free of sediment accumulation and debris and are functioning properly.
- Performing routine maintenance to the wheel-wash and overflow catch basin, as needed (i.e., removal of sediment accumulation and wash water by third party vacuum truck for temporary storage in the site's leachate pond).
- Inspecting the stormwater conveyance system components (catch basins, ditches, piping, and detention ponds) to ensure they are free of sediment accumulation and debris. The stormwater conveyance system components will be cleaned of sediment and debris, as needed, and this material will be disposed of properly.

3.1.4 Waste Chemicals and Material Disposal

All wastes generated on-site, such as trash or wastes generated by site maintenance activities, are stored in covered areas. These wastes will be managed properly in accordance with applicable regulations. Site-generated wastes will be recycled and/or disposed of by RL, or by third party vendors authorized to manage the type of waste involved, as needed.

3.2 STRUCTURAL BEST MANAGEMENT PRACTICES

Structural BMPs for source control are physical, structural, or mechanical devices or systems that are intended to prevent and/or minimize potential pollutants from entering into stormwater at the facility.

3.2.1 Minimizing Exposure to Stormwater

RL limits the amount of industrial operations exposed to stormwater by placing potential pollutants under cover in a building, shed, or storage container, or under a plastic tarp, awning or a similar structure.

Current site conditions are such that storage of materials, loading and unloading of materials, and equipment and vehicle maintenance activities at RL are performed inside the maintenance building and the landfill gas-to-energy building and are not exposed to stormwater, except for Tanks 7A and 7B located in the area in proximity to the maintenance building. The industrial activities on the active Modules 8 and 9 landfill area (e.g., waste disposal) are exposed to stormwater; however, any potential pollutants generated from these industrial operations that potentially come in contact with stormwater would drain to and be contained within the landfill's LCRSs and do not discharge from the site's stormwater outfall locations.

Additionally, RL diverts stormwater away from stored material and areas that generate potential pollutants. Currently, stormwater diversion from the RL industrial activities is accomplished primarily by proper grading of the landfill areas, drainage ditches and piping, pumping systems, and temporary plastic covering. Stormwater that infiltrates into the landfill cell areas is managed and disposed as leachate and does not enter the stormwater conveyance system. If needed, additional stormwater diversion methods may include the use of berms and curbs.

3.2.2 Oil and Grease

The potential for oil and grease in the stormwater discharge at RL is limited because the storage of materials, loading and unloading of materials, and equipment and vehicle maintenance activities are performed inside the maintenance building and are not exposed to stormwater. Additionally, stormwater impacted by oil and grease from the industrial activities (e.g., landfill equipment) conducted in the active waste cell areas (Modules 8 and 9) are contained within the landfill's LCRSs.

The most likely potential sources for oil and grease at RL that is exposed to stormwater are (1) waste hauling trucks and site vehicles on the facility access roads, (2) Tank 7A and 7B fueling area located outside of the maintenance building, (3) tracking from maintenance building area, (4) tracking and spills related to the used oil public recycling area, and (5) drips and leaks from employee parking areas.

Oil and grease pollution identified at the site will be cleaned up (including placing absorbent material on the pollution) as soon as they are identified. Furthermore, oil booms or absorbent material is placed in the stormwater conveyance system (site catch basins, drainage ditches, and detention ponds) downgradient of where the oil and grease is observed. These control measures prevent or reduce oil and grease from entering stormwater before it is discharged at the site outfalls.

3.2.3 Erosion and Sediment Control

Erosion and sediment control BMPs are developed for the following: temporary seeding, mulching and matting, preservation of natural vegetation, permanent seeding, placing topsoil, road stabilization, dust control, pipe slope drains, gradient terraces, interceptor dikes, check dams, outlet protection, riprap, straw bale barriers, sediment traps, and sediment basins.

BMPs outlined in DEQ's Erosion and Sediment Control Manual (ESCM)⁴ will be used and applicable practices included in the RL construction plans and specifications. Particular BMPs listed in the ESCM to be used in soil excavation areas at RL include but are not limited to the following:

- Most excavation will be performed during the drier parts of the year: generally June through October. Special care will be taken during excavation near the South Yamhill River to ensure no impacts to the river occur.
- Preservation of existing vegetation to ensure that any impacts to existing vegetation is avoided or minimized.
- Soil roughening and top-soiling activities will be performed to ensure proper soil management and preparation.
- Temporary silt fencing will be placed around the excavation to avoid impacts to the South Yamhill River due to unseasonal precipitation in the summer or early onset of rains in the fall season. Details of silt fencing installation and maintenance are provided in Figure 3-1.
- Permanent seeding and planting will be performed in areas that are excavated to final grades. These areas will be prepared and planted with grasses and forb species. Slopes and areas closer to the South Yamhill River will be staked and pole planted with materials collected from salvaged trees and shrubs removed during the grading activities.
- Seeding and planting will be performed in areas that have not reached final grades. Temporary seeding and planting will be performed by hydroseeding or broadcast seeding with a hay mulch with a combination of grasses suited for the climatic zone and which provide an adequate cover.

Additional, erosion and sediment control related to other industrial activities at RL is achieved using a combination of methods that include the following:

- **Pavement Cleaning.** Periodic cleaning of all paved areas reduces the possibility of sediment transport to the site outfalls. Sediment may be inadvertently transported to the site on trucks or containers and should be removed from paved outdoor surfaces as soon as it is noticed. Removal may include shoveling, sweeping, power sweeping, and/or vacuuming. These activities minimize the amount of sediment transport to the stormwater conveyance system, thereby increasing their efficiency.

⁴ GeoSyntec Consultants, 2005, Erosion and Sediment Control Manual, prepared for the Oregon Department of Environmental Quality of Portland, Oregon, prepared by GeoSyntec Consultants of San Diego, California, April.

- **Sediment Removal.** The stormwater conveyance system (i.e., catch basins, drainage ditches and piping, and detention ponds) are inspected monthly and cleaned using shovel or vacuum hose when sediment accumulation is observed. Sediment removed from stormwater conveyance system is disposed within the active landfill area.
- **Cover Stabilization.** Establishing vegetation on the intermediate cover in the inactive portions of the landfill (i.e., Module 1 through 8) and seeding, mulching, or placing other intermediate temporary cover material (i.e., geotextile) on the inactive portions of the landfill where vegetation has not yet been established.
- **Buffer Zones.** Cultivating grassy vegetation along areas of stormwater sheet flow runoff. Vegetated area will be maintained.
- **Sediment Fencing, Check Dams, and Straw Bales.** Installing sediment fencing and placing sediment control dams (straw waddle, bio bag, or rock), and straw bales in the soil borrow area and site drainage ditches in order to prevent sediment from entering into the stormwater conveyance system. These structures will be maintained, cleaned, and replaced, as needed, to maximize their efficiency at preventing sediment from entering the stormwater discharge.
- **Dust Control, Vehicle Tracking, and Wheel Washing.** There are several compacted gravel site access roads at RL; consequently, dust may be generated from these areas. Dust control is managed at the site by using a water truck to spray water on the site access road to and from the active landfill area. Spraying of the site roads helps to prevent the generation of dust and tracking of sediment from the waste hauling trucks. Vehicles leaving the landfill active area use the wheel-wash structure when potential sediment tracking from the active area is a concern. The wheel-wash structure removes sediment buildup on vehicle tires and prevents tracking on the landfill site roads and off-site sediment tracking.

3.2.4 Debris Control

The site uses temporary fencing around the active Module 9 landfill area to control debris from the active waste disposal activities. Permanent fencing is constructed on the east limit of the landfill area (i.e., Module 7) to prevent debris from migrating off-site to the adjacent property. Temporary litter fencing may also be constructed around the working faces in active waste cell areas. Additionally, RL implements a debris pickup program and routine housekeeping in order to prevent debris from entering the stormwater conveyance system. The site is inspected monthly to note any debris that accumulates in stormwater conveyance system. Any debris noted in the monthly inspection will be promptly removed and disposed of properly.

3.3 TREATMENT BEST MANAGEMENT PRACTICES

Treatment BMPs are used if operational and structural source control measures are not feasible or adequate at preventing pollutants from entering the stormwater discharge. Examples of treatment BMPs include detention or retention basins and filtration.

3.3.1 Detention Basins and Swales

Detention basin (ponds) and swales are constructed at RL to manage stormwater runoff and downstream erosion, and improve water quality discharging at site outfalls. These detention ponds and swales are shallow artificial structures that are designed to infiltrate stormwater into the ground until a sufficient volume of stormwater accumulates within these structures and is discharged out of each structure.

The Drainage Area 1 water quality swale and dispersion trench receives stormwater from a series of catch basins, piping, and drainage ditches within Drainage Area 1. The water quality swale is designed with an outlet pipe which conveys stormwater to the dispersion trench. Once the water level within the dispersion trench reaches the top of the trench wall, stormwater discharges at Outfall 1C to the ground and eventually to the Unnamed Creek.

Detention Pond 1 receives stormwater run-off from the drainage ditches and piping within Drainage Area 2. Detention Pond 1 is designed with outlet pipe which conveys stormwater out of this structure once the water level within the Detention Pond 1 reaches the outlet pipe level. The outlet pipe in Detention Pond 1 discharges stormwater to Unnamed Drainage at the Outfall 2 location.

The Drainage Area 4 water quality swale receives stormwater from drainage ditches and piping within Drainage Area 4. The water quality swale is designed with an outlet pipe at the east end of the swale which conveys stormwater to the Unnamed Creek at the Outfall 4 location.

Detention Pond 2 receives stormwater run-off from the conveyance ditch from Drainage Area 6 and is designed with outlet pipe which conveys stormwater out of this structure once the water level within the Detention Pond 2 reaches the outlet pipe level. The outlet pipe in Detention Pond 2 discharges stormwater through a conveyance swale to the Unnamed Drainage at the Outfall 6 location.

3.4 BEST MANAGEMENT PRACTICES RELATED TO SITE LEACHATE (CONTAMINATED STORMWATER)

RL uses a combination of operational and structural control BMPs to manage the site leachate (i.e., contaminated stormwater). During normal operation conditions at RL, leachate generated at RL is contained within the landfill's LCRSs (see Section 2.2.2) and does not discharge at the site's stormwater outfall locations.

Although the potential for leachate to comeingle with non-contaminated stormwater outside of the LCRS is minimal, RL has developed the following site-specific BMPs to (1) determine if leachate has comeingled with non-contaminated stormwater and (2) implement the appropriate response actions in the event this condition is identified:

- Perform routine (weekly and monthly) inspection of the site's LCRSs, landfill cover, and drainage areas to identify potential leachate (contaminated stormwater) outside of the LCRSs. Potential indicators for leachate may include seeps from the landfill slopes. Common physical characteristic of leachate may include discoloration, sheen, odor, and foam.

- Contain contaminated stormwater with temporary sumps or dike/dams, if identified outside of LCRSs in the site drainage areas. Additional controls to contain the downstream flow of contaminated stormwater may include capping (or plugging) conveyance piping (e.g., outlet pipes from Sedimentation Basin 1A). Contaminated stormwater will not be allowed to discharge at the site's outfall locations.
- Inspect the outfall location of the drainage area where contaminated stormwater was observed to confirm that contaminated stormwater did not reach the outfall location.
- Stop the source of the leachate e.g., by placing additional soil cover to an observed seep or repairing a leaking LCRS conveyance line.
- Divert the contained contaminated stormwater by pumping and piping or vacuum tanker-truck hauling to the leachate pond or holding tanks for temporary storage. Liquids in the leachate pond or holding tanks will be tanker-truck hauled to several permitted and approved off-site locations.

These BMPs are also illustrated in a flow chart to support the routine facility inspections (see Figure 3-2; Flow Chart for Inspection of Potential Contaminated Stormwater Outside of the LCRS).

4.0 SPILL PREVENTION AND RESPONSE PROCEDURES

The following sections describe the general SPRPs performed at RL. Additionally, RL maintains a Spill Prevention, Control, and Countermeasures Plan (SPCCP), consistent with 40 CFR 112. The SPCCP is filed in the site office building and should be referenced if a spill is identified at RL.

4.1 SPILL PREVENTION PROCEDURES

4.1.1 Training

The following information describes the personnel involved with spill prevention and the required training and record keeping practices.

- Facility personnel, including mechanics, operators, and laborers, must be instructed annually to perform their duties to prevent the discharge of harmful quantities of oil or hazardous substances and to review the contents of the SWPCP and SPCCP.
- Facility personnel including mechanics, operators, and laborers must be instructed annually as to their responsibilities for compliance with the requirements of the spill laws and emergency response regulations applicable to the facility.
- Facility personnel including mechanics, operators, and laborers must be instructed annually as to potential spill situations including tanks, piping, transfer of material, and procedures to avoid vehicle collision interactions with these facilities.
- New personnel including mechanics, operators, and laborers must be trained during their initial employment period.

4.1.2 Tank Truck Drivers

Tank truck drivers involved with loading or unloading activities at the facility must adhere to the following guidelines:

- Remain with the vehicle while loading/unloading. The driver must be located at the dispensing hose/pipe shut-off valve and be able to maintain sight of the fill port or liquid level indicator on the tank at all times.
- Drain the loading/unloading lines to the storage tank and close the drain valves before disconnecting lines, and make sure a drain pan or other appropriate containment device is located under all connections.
- Inspect the vehicle departing the facility to be sure the loading/unloading lines have been disconnected and drain and vent valves are closed.
- Immediately report any leakage or spillage, including quantity, to RL management.

4.1.3 Spill Preventative Maintenance

The RL spill preventative maintenance program involves routine (i.e., monthly) inspections and maintenance of the facility's industrial equipment and containers (e.g., ASTs). The preventative maintenance program is designed to ensure that the industrial equipment is operating in good condition by minimizing leaks and other releases of potential pollutants. Inspections related to the preventative maintenance program will be documented on the Monthly Inspection Report Form (see Appendix F).

Spill preventative maintenance activities at RL include:

- Use of drip buckets/pans to collect leaks and spills from equipment and vehicles when draining or replacing lubricating oils or other equipment fluids.
- Store spill response materials (i.e., drip buckets/pans, secondary containment bins, etc.) and spill kits in a location where they are readily accessible during emergencies. Used spill response materials will be disposed of in accordance with the applicable regulations and replaced with new or cleaned materials. Currently, spill kits are stored in the maintenance building, landfill gas-to-energy facility, and outdoor fueling areas.
- Use storage tanks equipped with shutoff valves, pumps, or controls to limit accidental spills whenever possible. Master flow and drain valves permitting direct discharge from storage tanks will be securely locked in the closed position when in non-operating status.
- Store liquids in compatible containers. Containers should be rigid and durable, corrosion resistant to the weather and fluid content, non-absorbent, water tight, rodent-proof, and equipped with a close fitting cover.

4.2 SPILL RESPONSE PROCEDURES

An important part of an effective response procedure during an oil or substance release incident is to keep the material separated from water in order to minimize its migration and the resulting potential impact to human health and the environment. Every effort must be made to prevent spills and emphasize substance containment at the source rather than resort to separation of the material from expanded portions of the environment or downstream waters.

The person discovering a release of material from a container, tank, or equipment must initiate the following response procedures immediately:

- **Extinguish any sources of ignition.** Until the material is identified as nonflammable and noncombustible, all potential sources of ignition in the area should be removed. Vehicles should be turned off. If the ignition source is stationary, an attempt should be made to move spilled material away from ignition source. Sparks and movement creating static electricity should be avoided.

- **Attempt to stop the release at its source.** First, assure that no danger to human health or safety exists. Simple procedures (turning valves, plugging leaks, etc.) may be attempted by the discoverer if there is no health or safety hazard and there is a reasonable certainty of the origin of the leak. The fire department should be called to halt the discharge at its source, if (1) the source of the release has not been found; (2) special protective equipment is necessary to approach the release area; or (3) assistance is required to stop the release. Site personnel should be available to guide the fire department's efforts.
- **Initiate spill notification and reporting procedures.** Report the incident immediately to the RL SWPCP Team. If there is an immediate threat to human life (e.g., a fire in progress or fumes overcoming workers), an immediate announcement should be made to evacuate the building or area, and the fire department should be called. Request the assistance of the fire department's hazardous materials response team if an uncontrollable spill has occurred and/or if the spill has or is likely to enter waters beyond the facility boundaries.

4.2.1 Containment of Release

If material is released outside of containment areas, it is critical that the material is accurately identified and appropriate control measures are taken in the safest possible manner. Consult the material safety data sheet (MSDS) via www.3Ecompany.com or 1-800-451-8346. To contain a release, the following procedures should be followed:

- **Attempt to stop the release at the source.** If the source of the release has not been found; if special protective equipment is necessary to approach the release area; or if assistance is required to stop the release, the fire department should be called to halt the discharge at its source. Site personnel should be available to guide the fire department's efforts.
- **Contain the material released into the environment.** Following proper safety procedures, the spill should be contained by absorbent materials and dikes using shovels and brooms. Spill kits including absorbent material, containment socks, rags, plastic, and a salvage drum that are located at the facility should be used to contain the release. Consult applicable MSDSs for material compatibility, safety, and environmental precautions.
- **Continue the notification procedure.** RLC management of the release. RLC management will notify the SWPCP Team and obtain outside contractors to clean up the spill, if necessary.

4.2.2 Spill Cleanup

Appropriate personal protective equipment and cleanup procedures can be found on MSDSs. Care must be taken when cleaning up spills in order to minimize the generation of waste. The RLC management can provide assistance with the issues discussed below. The RLC management must be made aware of all spills that reach the sanitary sewer or surface waters.

In case of a significant spill (i.e., a spill other than automotive fluids) or any spill that reaches a water body or involves a serious injury or evacuation, the Environmental Protection Manager must be contacted immediately. The Operations Manager or District Manager involved may also contact the Environmental Protection Manager for assistance with reporting, waste designation, and follow-up actions.

Generally, RL personnel will perform all spill cleanup activities related to a small spill or release at the facility that is not likely to escape into waters of the state. However, RLC management will consider the volume and type of the spilled material and evaluate if RL personnel can manage the spill cleanup activities or if a third party contractor will need to perform the cleanup activities. A third party contractor will perform the spill cleanup activities if a spill or a hazardous material is (1) likely to enter into waters of the state or (2) occurs in a location where it is likely to escape into waters of the state.

General spill cleanup activities will include the following:

- **Recover or clean up the material spilled.** As much material as possible should be recovered and reused where appropriate. Material that cannot be reused must be declared waste. Solid materials that have absorbed liquids may be shoveled into containers or drums. When such containers or drums are filled after a cleanup, the lids should be secured and the containers should be appropriately labeled (or relabeled) identifying the contained material(s), the date of the spill/cleanup, and the facility name and location. Non-compatible materials should not be combined since such actions can cause potentially dangerous chemical and/or physical reactions or may severely limit disposal options. Material compatibility information can be found on MSDSs and should be reviewed before materials are combined in a container.
- **Cleanup of the spill area.** Surfaces that are contaminated by the release should be cleaned by using an appropriate substance or water. Cleanup water should be minimized, contained, and properly disposed. Occasionally, porous materials (such as wood, soil, or oil-dry) may be contaminated; such materials may require special handling for disposal.
- **Decontaminate reusable tools and equipment used in cleanup.** If reusable tools and equipment are dedicated to cleanup efforts, they should be decontaminated before replacing them in the spill control kit.

4.2.3 Post-Cleanup Procedures

Post-cleanup actions will include the following:

- **Notification and reports to outside agencies.** The District Manager (or delegate) must determine if a reportable spill has occurred. Notifications to federal, state, and/or local agencies must be executed, if necessary.

- **Arrange for proper disposal of any waste materials.** Waste materials from the cleanup must be properly characterized. Representative sampling and analysis may be necessary to make this determination. The RLC management should assure that the waste is transported and disposed of in compliance with applicable laws and regulations.
- **Review the contingency and spill plans.** RLC management and operating personnel should review spill response efforts, notification procedures, and cleanup equipment usage to evaluate their adequacy during the episode. The SWPCP must be revised and amended where deficiencies are noted.

4.2.4 Communications

In case of a fire, spill, or other emergency, paging systems, telephones, and two-way radios can be used to contact personnel. In addition, telephones located in the office building can be used.

4.2.5 Spill, Fire, and Safety Equipment

Portable fire extinguishers are located throughout the facility, on facility vehicles and equipment, and are well marked and easily accessible.

4.3 IMMEDIATE REPORTING PROCEDURES/EMERGENCY CONTACTS

In the event of a spill at RL, the District Manager (who has direct responsibility for the day-to-day operation of the facility) or delegate will perform the required reporting. The reporting requirements to be followed by the facility if a release of a hazardous material or oil occurs, consistent with Oregon Administrative Rule (OAR) 340-142-0040 and 340-142-0050, includes the following:

- The immediate reporting of a spill or release or threatened spill or release to the Oregon Emergency Response System (OERS) at (800) 452-0311 if the amount of oil or hazardous material spilled or released, or threatening to spill or release, exceeds the reportable quantity established in OAR 340-142-005, or will exceed a reportable quantity in any 24-hour period. Additionally, the facility will notify the U.S. Environmental Protection Agency's (EPA's) National Response Center at (800) 424-4372.
- Reporting the physical compromise of a containment system or container holding any oil or hazardous material of an amount that could become a reportable quantity when spilled during less than a 24-hour period. No present release of material is needed to qualify as a threatened spill or a release.
- A spill or release of hazardous materials for which the reportable quantity has been exceeded is not required to be reported to the OERS if all of the following conditions are met:
 - The spill or release occurs within an engineered containment area with an impervious surface designed to contain such a release.

- The spill or release does not penetrate any surface of the containment area.
- The spill or release does not and will not escape the containment area.
- The spill or release is completely cleaned up in less than 24 hours.
- The cause of the spill or release is repaired.

The reportable quantities of spills or releases, or threatened spills or releases of oil or hazardous materials in amounts equal to or greater than the following will be reported:

- A release of any quantity of oil or hazardous materials into waters of the state or in a location from which it is likely to escape into waters of the state that would produce a visible film, sheen, oily slick, oily solids, or coat aquatic life, habitat or property with oil.
- A release of any quantity of oil over 42 gallons onto the surface of the land that is not likely to escape into waters of the state.

4.3.1 Internal/External Reporting Requirements

Spills that meet the reporting requirements listed in Section 4.4 should be documented using the DEQ Spill Report Form or equivalent, (see Appendix G). At a minimum, the report should document the following items:

- Date, time, and duration of release.
- Source and total volume of the release.
- Spill cleanup procedures.
- Personnel who discovered and/or participated in the spill remediation.
- Equipment used during the cleanup.
- Waste disposal method.
- Unusual events, injuries, or agency inspections.

4.3.2 Reporting Procedures

The following information must be communicated when reporting to outside agencies:

- Name, title, telephone number, and address of the personnel making the report.
- Name, telephone number, and address of facility/where the spill or release occurred.
- Time, type, and amount of materials involved and the cause of the spill or release.
- Extent of injuries/illness, if known and possible hazards to human health and environment.
- The body of water involved or impacted by the spill or release, if applicable.
- The action taken or proposed by the facility/personnel.

5.0 STORMWATER MONITORING PLAN

This section describes how the visual monitoring and the analytical monitoring requirements of Permit will be conducted. The monitoring program includes the stormwater monitoring schedule and objectives, reporting and recordkeeping, analytical parameters, methods and procedures for stormwater sample collection and analyses, visual monitoring, and stormwater drainage and treatment system inspections. A summary of the stormwater monitoring requirements is provided in Table 5-1.

5.1 IDENTIFICATION OF STORMWATER DISCHARGE MONITORING LOCATIONS

Outfall 1C is located in the northern portion of the RL property and is the location where representative stormwater discharges from Drainage Area 1 to the Unnamed Creek. Sampling Point 1C is located where stormwater discharges from the dispersion trench to the ground and eventually the Unnamed Creek (see Figure 1-3). Stormwater discharge from Drainage Area 1 Outfalls 1A and 1B are not selected for monitoring because they are not exposed to the site industrial activities performed in Drainage Area 1 and are only exposed to employee parking. Consequently, Outfall 1C is selected as the representative monitoring location within Drainage Area 1 because discharge at this location is representative of stormwater at Outfalls 1A and 1B (i.e., only exposed to employee parking) as well as representative of stormwater discharge exposed to the industrial activities within Drainage Area 1 (e.g., vehicle traffic and recycling materials).

Outfall 2 is located in the south-southwest portion of the RL property and is the location where stormwater discharges from Drainage Area 2 into the Unnamed Drainage. Sampling Point 2 is located at the Outfall 2 discharge pipe location where stormwater enters the Unnamed Drainage (see Figure 1-2). Outfall 4 is located in the east section of the RL property and is the location where stormwater discharges from Drainage Area 4 into the Unnamed Creek (see Figure 1-2). Sampling Point 4 is located at the Outfall 4 discharge pipe location where stormwater enters the Unnamed Creek. Outfall 6, located in the southwest portion of the RL property, is the location where stormwater discharges from Drainage Area 6 into the Unnamed Drainage. Sampling Point 6 is located where stormwater discharges from the conveyance swale into the Unnamed Drainage at Outfall 6 (see Figure 1-2).

Stormwater discharge at Sampling Points 1C, 2, 4, and 6 are representative of stormwater discharge in Drainage Areas 1, 2, 4, and 6, respectively, at RL and do not include any stormwater from other drainage areas outside the facility. The Sampling Points 1C, 2, 4, and 6 locations are where stormwater visual monitoring and sampling for laboratory analysis will be performed, consistent with the requirements presented in Table 5-1.

5.2 STORMWATER MONITORING REQUIREMENTS

5.2.1 Statewide Benchmark Monitoring

The Permit statewide benchmark monitoring program is designed to assist RL in determining whether its site controls (i.e., BMPs) are effectively reducing pollutant concentrations in stormwater discharging at Outfalls 1C, 2, 4, and 6 (i.e., Sampling Points 1C, 2, 4, and 6, respectively). The Permit statewide benchmarks are guideline concentrations and not limitations. Consequently, a benchmark

concentration exceedance is not a Permit violation. Table 5-1 provides a list of the benchmark parameters and concentrations that apply to Outfalls 1C, 2, 4, and 6 at RL.

5.2.2 Impairment Pollutant Monitoring

As noted in Schedule B.1.b of the Permit (see Appendix A), facilities that discharge to an impaired water body without a total maximum daily load (TMDL) for pollutants, must monitor for impairment pollutants for which a standard analytical method exists. Additionally, facilities that discharge to an impaired water body with a TMDL are not required to monitor for impairment pollutant addressed by the TMDL, unless the TMDL establishes wasteload allocations and additional requirements for industrial stormwater discharges.

The DEQ did not identify any impairment pollutant parameters and associated monitoring requirements applicable to RLC in its Permit assignment letter dated June 13, 2013. Consequently, no impairment pollutant monitoring requirements are included in this SWPCP.

If a future impairment pollutant is applicable to RL, the reference concentrations will be based on the acute aquatic life criteria, if criteria are approved for the pollutant. If there is no acute criteria established for the pollutant, DEQ will use the chronic criteria. If there is no chronic criteria established for the pollutant, DEQ will use the human health criteria. Similar to the statewide benchmarks, the impairment pollutant reference concentrations are guideline concentrations and not limitations. The impairment pollutant reference concentrations, if applicable, are designed to assist RLC in determining whether its site controls (i.e., BMPs) are effectively reducing pollutant concentrations in stormwater discharging at Outfalls 1C, 2, 4, and 6. Consequently, an exceedance of an impairment pollutant reference concentration is not a Permit violation.

5.2.3 Sector-Specific Benchmark Monitoring

Consistent with the requirements of Schedule E.L.6 of the Permit, RL stormwater discharge is subject to the sector-specific benchmark monitoring for total iron. This is required rather than the numeric effluent limit monitoring requirements (Schedule E.L.7 of the Permit) because the stormwater discharge at Outfalls 1C, 2, 4, and 6 (Sampling Points 1C, 2, 4, and 6, respectively) is defined as non-contaminated.² Similar to the statewide benchmark monitoring program summarized in Section 5.2.1, a sector-specific benchmark is a guideline concentration and not a limitation. Consequently, a sector-specific benchmark concentration exceedance is not a Permit violation. Table 5-1 summarizes the sector-specific benchmark monitoring that applies to Outfalls 1C, 2, 4, and 6 at RL.

5.2.4 Numeric Effluent Limits Monitoring

Pursuant to Schedule A.2 of the Permit (see Appendix A), contaminated stormwater discharges from non-hazardous landfills (i.e., RL) are required to meet the numeric effluent limits in Schedule E.L.7 of the Permit if the stormwater discharge meets the definition of contaminated.³ Because stormwater discharge at RL's Outfalls 1C, 2, 4, and 6 is defined as non-contaminated², RL is not currently subject to the numeric effluent limit monitoring requirements. If current conditions change and the site begins to discharge contaminated stormwater, then the outfall that is discharging contaminated stormwater will be subject to the numeric effluent limit monitoring program in Schedule E.L.7 of the Permit. For

informational purposes, the numeric effluent limits monitoring requirements for contaminated stormwater discharge is summarized in Table 5-1.

If RL stormwater discharge becomes subject to Schedule E.L.7 of the Permit and identifies an exceedance of numeric effluent limit, then follow-up monitoring of the pollutant(s) that exceeded the numeric effluent limit(s) will be performed within 30 days (or during the next measurable storm event should none occur within 30 days) of receiving the analytical results. If the follow-up monitoring exceeds the numeric effluent limit, then RLC will continue to sample for that pollutant(s) four times per year until compliance with the numeric effluent limit is established.

5.2.5 Additional Pollutant Monitoring

As part of a statewide program to determine the presence and extent of other pollutants in industrial stormwater, the DEQ is requiring the monitoring for additional pollutants. The additional pollutant monitoring parameters that are applicable to RL include total cadmium, chromium, and nickel and these monitoring requirements are summarized in Table 5-1. There are no benchmarks, reference concentrations, or numeric effluent limits related to these additional pollutant parameters.

5.3 STORMWATER SAMPLING

5.3.1 Sampling Frequency

A summary of the monitoring and grab sampling frequency is provided in Table 5-1. It should be noted that the Permit monitoring year begins on July 1 and ends on June 30 of each year.

RLC may collect more samples than the minimum frequency described in Table 5-1; however, the additional sampling data must be reported in the annual Discharge Monitoring Report (DMR). These additional sampling data must also be included to establish a monitoring waiver (see Schedule B.4 of the Permit; Appendix A) or to perform the geometric mean evaluation (see Schedule A.12 of the Permit; Appendix A).

5.3.2 Sampling Methods and Procedures

If stormwater discharge is observed at Outfalls 1C, 2, 4, and 6, then grab samples will be collected at Sampling Points 1C, 2, 4, and 6 within the first 12 hours after discharge begins. If it is not feasible to collect the grab samples within this time period, then grab samples will be collected as soon as is practicable. Documentation of why it was not possible to take samples within the first 12 hours after discharge started must be included in the DMR (see Section 7.1). RLC is not required to sample outside of regular business hours or during unsafe conditions.

Additional sampling methods are approved by the Permit and include (1) a series of composite grab samples, (2) time weighted composite samples, and (3) flow weighted composite samples. These alternative sampling methods may be used, except when monitoring for pH, total oil and grease and *E. coli*. Additionally, pH should be measured in the field within 15 minutes of collecting the grab sample.

RLC may use a single grab sample to satisfy multiple pollutant parameter monitoring requirements (e.g., if required to monitor for total zinc as a statewide benchmark and numeric effluent limit parameter).

The contracted laboratory (e.g., TestAmerica Laboratories of Denver, Colorado) will provide appropriate sample containers, preservatives, labels, and chain-of-custody forms for sampling. The personnel performing sampling activities at RLC will use the following procedures to collect stormwater discharge grab samples:

- Collect the grab sample by filling up a sample container either by hand, using a dipper or with a sample bottle securely attached to a pole (if necessary).
- Collect oil and grease samples directly into the sample container and not by transferring the sample from another container.
- Keep hands and other objects away from the sample bottle opening when holding it to prevent contaminating the sample. Powder-free gloves (e.g., nitrile or latex) will be worn while sampling. A new pair of gloves will be used for each separate sampling location if more than one location is being sampled.
- Hold the sample bottle with its opening facing upstream toward the direction that water is flowing to allow water to enter directly into the bottle without contacting other objects.
- Collect samples as close to the central portion of the flow as possible. To the extent practical, do not touch the bottom of the sampling location to prevent stirring up possible sediment.
- Do not rinse or overfill bottles. Approximately ½-inch of headspace should be left at the top of each bottle.
- Cap and label the bottle with the following information after the sample is collected:
 - Outfall name (e.g., Sampling Point 2).
 - Analytical parameter.
 - Date and time samples were collected.
 - Sampler's initials.
 - Project identifier (i.e., RL Stormwater).

5.3.3 Sample Handling and Transfer

Original chain-of-custody forms will be sent to the laboratory along with the samples. A copy of all sampling forms, including field logs will be kept in the facility file. The chain-of-custody forms will include the following:

- Date and time samples were collected.
- Sampler's signature and time of shipment.
- A list of analyses to be completed.
- Matrix of sample (stormwater).
- Number of sampling containers.

All sample containers will be carefully packed in an insulated cooler and generously covered with wet ice and/or blue ice. All collected stormwater samples will be stored in a field cooler with ice (or ice packs) before and during shipment to the laboratory. Samples should be iced as they are collected or immediately thereafter. Additional ice may need to be added just before shipping. Before shipping, the sample cooler will be sealed with custody seals. The cooler will be shipped within 24 hours after sample collection so the laboratory can conduct the analyses within required holding times.

If collected, *E. coli* and other bacteriological samples will be delivered directly to the local laboratory. This is done to ensure that the analytical holding time requirements are met.

5.4 MONITORING VARIANCE

If RLC is unable to collect a sample because there is no stormwater discharge from the site outfalls during the monitoring year, then a monitoring variance must be requested. Based on review of RL's previous DMRs, it is unlikely that monitoring variances will be required during this Permit's coverage period (through June 30, 2017).

A monitoring variance may be granted if one of the following criteria is met:

- State or federal authorities declare the year a drought year.
- Rainfall in the area where the facility is located is demonstrated to be 20 percent or more below the three-year average rainfall for the area.
- RLC demonstrates to DEQ's satisfaction that samples could not be collected due to (1) on-site detention or retention systems or (2) the infrequency of storm events of sufficient magnitude to produce runoff during normal business hours and under safe conditions.

A variance request for each outfall and missed sampling event must be submitted in the annual DMR (due July 31 of each year). The request must include supporting data and analysis demonstrating why monitoring could not be performed. In order to assure that documentation supporting missed sampling events is available, it is recommended that RLC conduct a review of missed samples every six months, and collect photographic evidence and documentation of the on-site detention basin to demonstrate absence of discharge during storm events.

5.5 MONITORING WAIVER

RLC is eligible for a monitoring waiver if the geometric mean of four (4) consecutive sample results is below specified statewide benchmark(s), sector specific benchmark(s), or reference concentrations for impairment pollutants. In these cases, a waiver from collecting samples for that parameter at a sampling point may be granted for the remainder of the Permit term.⁵

The following should be noted regarding issuance of waivers:

- No reduction in monthly visual observations is allowed, unless the facility is inactive or unstaffed and there are no industrial materials and activities exposed to stormwater.
- No monitoring waivers may be granted for monitoring of numeric effluent limits.
- Monitoring waivers may be allowed for individual parameters.
- Sampling results from stormwater monitoring events cannot be averaged.

If RL meets the monitoring waiver requirements, the facility must submit a written request to the DEQ that includes the analytical results from the last four sampling events in order to exercise the waiver. If the DEQ does not comment on the monitoring waiver request within 30 calendar days, then the monitoring waiver is deemed approved. Monitoring waivers are subject to revocation (see Schedule 4.a.ii.2 of the Permit; Appendix A).

5.5.1 Natural Background Waiver

Consistent with Schedule B.a.2 of the Permit, RLC may submit a natural background waiver report to the DEQ if the exceedance(s) is attributed solely to the presence of the pollutant(s) in natural background conditions and is not associated with industrial activities at the site. The natural background waiver report must (1) describe the investigation and analysis to demonstrate that the exceedance(s) are due to natural background conditions and (2) include any data collected by RLC or others (including literature studies) that describe/explain the levels of natural background pollutants in the discharge. If the natural background waiver is approved, then the DEQ will consider these pollutant parameters as being below the benchmark(s) or reference concentration(s).

5.6 MONTHLY INSPECTIONS AND INSPECTION REPORTS

Monthly inspections at RL will be performed during normal business hours and under safe conditions. Additionally, the monthly visual monitoring of stormwater discharge will be performed during a storm event when discharge is observed at Outfalls 1C, 2, 4, and 6. If no discharge is observed at these outfalls during a month, then the visual monitoring will be performed on the last regular business day of that month and the no discharge conditions will be documented on the Monthly Inspection Report Form (Appendix F).

⁵ As of this SWPCP update (February 2016), RLC has received monitoring waivers for the statewide benchmark parameters at Sampling Points 2 and 4 from the DEQ in letters dated December 10, 2014 and November 12, 2014, respectively.

The monthly inspections will be conducted in areas where industrial materials and activities are exposed to stormwater and where stormwater BMPs are located. The monthly inspections are designed to assess the following:

- Industrial materials, residue, or debris that may have or could come into contact with stormwater.
- Leaks or spills from industrial equipment, drums, tanks, and other containers.
- Off-site tracking of industrial or waste materials, or sediment where vehicles enter or exit the site, excluding employee only entrances and exits.
- Evidence of, or the potential for, pollutants entering the stormwater drainage system.
- Stormwater control measures are functioning properly.
- Erosion that may be forming on vegetated or bare slopes of the inactive and active landfill areas (daily, intermediate, and final cover).
- The leachate management systems are operating properly.
- Evidence of pollutants discharging to receiving waters at Outfalls 1C, 2, 4, and 6, and the condition of and around these outfalls.
- Presence of floating solids (associated with industrial activity), foam, visible oil sheen, and discoloration of the stormwater discharge. The visual observations will be performed when stormwater discharge is occurring during regular business hours and safe conditions.

Results of the inspections will be documented on the Monthly Inspection Report Form (see Appendix F). The Monthly Inspection Report Forms will be retained on-site in the SWPCP files and available to the DEQ upon request and during DEQ site inspections.

5.6.1 Additional Weekly Inspection Requirements

Consistent with Schedule E.L.4 of the Permit (see Appendix A), RLC is required to perform weekly (i.e., at least once every seven days) inspection for the following:

- Erosion that may be forming on vegetated or bare slopes of the inactive and active landfill areas (daily, intermediate, and final cover) that are not stabilized. Ensure that sediment control structures are operating properly.
- The leachate management systems are operating properly.
- Storage of industrial materials and waste that are exposed to stormwater.
- Off-site tracking of industrial or waste materials, or sediment where vehicles enter or exit the site.

Results of the inspections will be documented on the Weekly Inspection Report Form (see Appendix H). The Weekly Inspection Report Forms will be retained on-site in the SWPCP files and available to the DEQ upon request and during DEQ site inspections.

6.0 CORRECTIVE ACTIONS

6.1 TIER I CORRECTIVE ACTION RESPONSE TO EXCEEDANCE OF STATEWIDE BENCHMARKS AND REFERENCE CONCENTRATIONS FOR IMPAIRMENT POLLUTANTS

Statewide benchmarks and sector-specific benchmarks in Schedule E of the Permit are designed to aid RLC in determining whether its SWPCP is effective in reducing pollutant concentrations in stormwater discharge at Outfalls 1C, 2 4, and 6. These benchmark concentrations have been designed to provide a qualitative assurance that water quality standards are not exceeded.

If stormwater sampling results exceed any of the applicable statewide benchmarks or sector-specific benchmark, then within 30 days of receiving the analytical results RLC will:

- Investigate the cause of elevated pollutant levels.
- Review the SWPCP and the existing selection, design, installation, and implementation of control measures to ensure compliance with the Permit. If RLC determines that SWPCP revisions are necessary based on corrective action review, then the revised pages of the SWPCP will be submitted to the DEQ, including a schedule for implementing the control measures.
- Prepare a Tier I report that summarizes (1) the results of the investigation, (2) corrective action(s) taken or to be taken, including the date of corrective action(s) completed or expected to be completed, and (3) document whether SWPCP revisions are necessary. If possible, the corrective action will be implemented before the next storm event or as soon as practicable.

The Tier I report is not required to be submitted to the DEQ and will be retained on-site with the SWPCP files. The Tier I report will be available to the DEQ upon request and during DEQ site inspections.

6.2 TIER II CORRECTIVE ACTION RESPONSE BASED ON FOURTH YEAR GEOMETRIC MEAN BENCHMARK EVALUATION RELATED TO THE PERMIT THAT EXPIRED IN JUNE 2012

Consistent with Schedule A.12 of the Permit, RL met the requirements of the Tier II corrective action response based on the fourth year geometric mean evaluation of the *E. coli* analytical results for the samples collected at Sampling Point 2 (Outfall 2) during the fourth year (July 1, 2010 through June 30, 2011) of Permit coverage that expired on June 30, 2012. Consequently, the SWPCP originally prepared in March 2012 included additional stormwater source control and treatment measures, with the goal of meeting the benchmark for *E. coli* in future stormwater discharges at Outfall 2 (see Appendix I). The Tier II corrective action response includes (1) the rationale for the selection of the source control and/or treatment measures, (2) the projected reduction of *E. coli* concentrations, and (3)

the schedule for implementing these measures. A licensed professional engineer designed and stamped Appendix I, consistent with the requirements of the Permit.

Consistent with the Permit, no later than two years after obtaining Permit coverage, RLC implemented the Tier II corrective action response (see Appendix I). If the Sampling Point 2 analytical results continue to exceed the *E. coli* benchmark after the Tier II corrective actions were implemented, then within 30 days of obtaining the analytical results, RLC must evaluate whether the treatment measures were properly installed, maintained, and implemented. Additionally, RLC must assess whether modifications to these measures are necessary. These findings must be summarized in a Tier II benchmark exceedance report that is retained on-site and submitted to DEQ annually with the DMR.

RL is exempt from the Tier II corrective action requirements in Section 6.3 (see below) for *E. coli* in stormwater samples collected at Outfall 2 (Sampling Point 2) because the Tier II corrective action response has already been triggered.

6.3 TIER II CORRECTIVE ACTION RESPONSE BASED ON SECOND YEAR GEOMETRIC MEAN BENCHMARK EVALUATION

Consistent with Schedule A.12 of the Permit, the Tier II corrective action response will be based on the evaluation of the analytical results collected during the second year of Permit coverage. This evaluation is performed to determine if the geometric mean of the analytical results of the stormwater discharge samples collected at the Sampling Points 1C, 2, 4, and 6 exceed any statewide benchmarks. RLC will report this information to the DEQ in the DMR for that monitoring year. Please note that the pH benchmark Tier II corrective action requirements are triggered if more than three samples collected during the first two years of Permit coverage are outside of the pH benchmark range. Additionally, RLC will not be required to conduct this geometric mean evaluation for a particular benchmark parameter(s) if a monitoring waiver has been established for a particular parameter(s).

If the results of the geometric mean evaluation identify that the analytical results for Sampling Points 1C, 2, 4, and 6 exceed the statewide benchmark concentration(s) (or if more than three samples are outside of the pH benchmark range during the first two years of Permit coverage), RLC is required to revise the SWPCP. The SWPCP revision will include additional stormwater treatment measures, which may include a combination of source control and treatment measures, with the goal of achieving the benchmark(s) in Schedule A.9 of the Permit in future stormwater discharges. The revision of the SWPCP will include (1) the rationale for the selection of the source control and/or treatment measures, (2) the projected reduction of pollutant concentration(s), and (3) the schedule for implementing these measures. A licensed professional engineer or certified engineering geologist must design and stamp the portion of the revised SWPCP that addresses the additional stormwater source control and/or treatment measures.

The revised SWCP must be submitted to the DEQ by December 31 of the third year of Permit coverage. If RLC does not receive a response from DEQ within 30 days of DEQ's receipt of the revised SWPCP, the proposed revisions are deemed accepted. RLC would then be required to implement the additional source control and/or treatment measures by June 30 of the fourth year of Permit coverage.

6.3.1 Tier II Waiver

RLC may request a waiver from the requirements of the Tier II corrective actions if the following conditions have been met:

- The benchmark exceedance(s) is attributed solely to the presence of the pollutant(s) in natural background and is not associated with industrial activities at the site. A Tier II waiver report must be submitted to the DEQ and include the investigation and analysis used to demonstrate that the exceedances are due to natural background conditions. The report must include any data collected by the permit registrant or others (including literature studies) that describe the levels of natural background pollutants in the stormwater discharge.
- RLC implements or has implemented volume reduction measures that have or will result in reductions of the mass load of pollutants in the stormwater discharge below the mass equivalent of the benchmarks. A Tier II waiver report must be submitted to the DEQ and include data and analysis to support this determination, including the description of the measure(s), date(s) implemented or expected to be implemented, and the mass load analysis.

RLC must submit a Tier II waiver report to DEQ by December 31 of the third year of Permit coverage. DEQ will grant or deny the waiver request within 60 days after receiving of the Tier II waiver report.

7.0 REPORTING AND RECORD KEEPING REQUIREMENTS

7.1 ANNUAL DISCHARGE MONITORING REPORT

The results of grab sampling for the previous monitoring period (July 1 through June 30) must be submitted to the DEQ by July 31 of each year. Data must be reported on the DEQ-approved DMR form and a copy of the laboratory analytical reports must be included in the DMR submittal. The annual DMR must also include minimum detection levels and the analytical method for the parameters analyzed. Parameters that are reported as non-detects must be reported as “ND” with the detection limit in parentheses, i.e., ND (0.005 mg/L). When calculating the geometric mean, one-half of the detection limits must be used for non-detects.

If more frequent monitoring is performed at Sampling Points 1C, 2, 4, and 6 than required by the Permit and the additional monitoring is for pollutant parameters specified in the Permit, then these results must be included in the geometric mean evaluation and/or submitted in the DMR.

7.2 EXCEEDANCE REPORT FOR NUMERIC EFFLUENT LIMITS

As previously noted, RL stormwater discharge is not currently subject to the numeric effluent limit monitoring program. However, if RL stormwater discharge becomes subject to the numeric effluent limit and follow-up monitoring exceeds a numeric effluent limit, RLC must submit an Exceedance Report to DEQ no later than 30 calendar days after receiving the laboratory analytical results, consistent with Schedule B.2.e.iii of the Permit. The Exceedance Report must include (1) the monitoring data from this monitoring event and the preceding monitoring event(s), and (2) an explanation of the situation; and (3) what RLC has done to correct the violation or intends to do if the corrective actions are not yet completed.

7.3 RECORD KEEPING

RLC must record and maintain records associated with the Permit for a minimum of three (3) years. The following information should be on file at the site, at a minimum, and available for DEQ to review upon request:

- SWPCP and any revisions to the document.
- Records of employee training.
- Records of monthly inspection reports, maintenance and repair of stormwater conveyance system and BMPs.
- Records of spills or leaks of materials that impacted or had the potential to impact stormwater or surface waters, including corrective actions used to clean up the spill and measures to prevent future problems of the same nature.
- Corrective action reports.

TABLES

**Table 1-1
Stormwater Pollution Control Plan
Revision and Review Record
Riverbend Landfill**

Date of Revision or Review Completed	Preparer's or Reviewer's Name	Reason for Revision or Review of the SWPCP	Revision Required to be Submitted to DEQ (Yes or No)	Date of Revision Submittal to DEQ
March 2012	Jason Davendonis, SCS Engineers	Updated to be consistent with the renewed NPDES 1200-Z Permit requirements.	Yes	March 2012
October 2012	Jason Davendonis, SCS Engineers	Revised to address the DEQ's comments to the March 2012 SWPCP.	Yes	October 2012
January 2014	Jeff O'Leary, Riverbend Landfill Company	Updated SWPCP site map to be consistent with recent site development activities.	Yes	January 2014
June 2014	Jason Davendonis, SCS Engineers	Updated SWPCP to be consistent with site development activities and modifications to the facility.	Yes	June 2014
April 2015	Jason Davendonis, SCS Engineers	Updated SWPCP to be consistent with site development activities and modifications to the facility (i.e., addition of the front entrance facility).	Yes	April 8, 2015
June 2015	Jason Davendonis, SCS Engineers	Revised SWPCP site figures based on DEQ's review of the April 2015 update.	Yes	June 24, 2015
November 2015	Jason Davendonis, SCS Engineers	Updated SWPCP to be consistent with site development activities including recently constructed MSE Berm Phase 1B, drainage area reconfiguration, and addition of new Drainage Area 6 with Detention Pond 2).	Yes	November 24, 2015
February 2016	Jason Davendonis, SCS Engineers	Revised SWPCP based on DEQ's review of the November 2015 update.	Yes	February 2, 2016

**Table 1-2
Stormwater Pollution Control Plan Team
Riverbend Landfill**

Title	Responsibility
District Manager	Coordination of the stormwater pollution control plan (SWPCP) activities, implementation of best management practices (BMPs) and control measures, training, monitoring, inspections, record keeping and reporting.
Operations Manager	BMPs and control measures implementation, training, equipment maintenance, storage and disposal of significant materials, spill prevention and response, stormwater monitoring and inspections.
Environmental Protection Manager	SWPCP implementation oversight and technical assistance to the District Manager and Operations Manager.
Third-Party Contractor or Consultant	Technical assistance, as needed (e.g., SWPCP updates and stormwater sampling).

Table 2-1
Summary of Pollutant Sources and Potential Pollutants
Related to Site Industrial Activities
Riverbend Landfill

Site Industrial Activity	Site Location(s)	Drainage Area(s)	Potential Pollutant Source(s)	Potential Pollutant(s)
Hauling of solid waste to active landfill area.	(1) Site access roads to the active Module 9 landfill area and (2) the active Module 9 landfill area.	Drainage Areas 1, 2, and 6	(1) Hauling truck fluids including fuel, oil, hydraulic lines and coolant/antifreeze and (2) hauling truck spills/leaks of solid waste material.	Total suspended solids (TSS), oil and grease (O&G), metals, ammonia, bacteria and organics.
Disposing, compacting, and covering of solid waste material.	Active Modules 8 and 9 landfill area.	Drainage Areas 2 and 6	(1) Landfill equipment fluids including fuel, oil, hydraulic lines and coolant/antifreeze and (2) spills/leaks of solid waste material.	TSS, O&G, metals, ammonia, bacteria, and organics.
Accepting recyclable materials and storing and staging of transport containers designed for managing recyclable materials.	Public recycling area.	Drainage Area 1	Recyclable materials, including paper, metals, glass, used batteries, tires and electronic waste.	TSS, O&G, metals, and organics.
Vehicle/equipment fueling and materials loading and unloading.	(1) Active Modules 8 and 9 landfill areas and (2) outside and inside the maintenance building.	Drainage Areas 1, 2, and 6	(1) Overflow/spills during loading and unloading activities, (2) structural failure, faulty equipment, and leaks.	O&G (fuel, petroleum, hydraulic fluids), metals, and organics.
Vehicle/equipment storage and parking.	(1) Active Modules 8 and 9 landfill areas, (2) employee parking lots near the office and maintenance buildings, and (3) site access roads.	Drainage Areas 1, 2, 4, and 6	Leaking equipment/vehicle fluids including fuel, oil, hydraulic lines and coolant/antifreeze.	O&G (fuel, petroleum, hydraulic fluids), metals, and organics.
Vehicle/equipment maintenance.	(1) Active Modules 8 and 9 landfill areas and (2) inside the maintenance building.	Drainage Areas 1 and 2	(1) Parts cleaning (spills during servicing or employee tracking material to uncovered areas), (2) waste disposal of greasy rags, oil filters, air filters, batteries, hydraulic fluids, transmission fluid, radiator fluid, degreasers, and (3) spills for fluid replacement, including oil, and other vehicle/equipment fluids.	TSS, O&G (fuel, petroleum, hydraulic fluids), metals, and organics.
Container storage of significant materials.	(1) Active Modules 8 and 9 landfill areas and (2) outside and inside the maintenance building.	Drainage Area 1 and 2	(1) Overflow/spills during loading and unloading activities and operator error and (2) structural failure, faulty equipment, and leaks.	TSS, O&G (fuel, petroleum, hydraulic fluids), metals, and organics.
Operation of the landfill gas-to-energy facility.	Landfill gas-to-energy building.	Drainage Area 1	(1) Overflow/spills during loading and unloading activities and operator error and (2) structural failure, faulty equipment, and leaks.	TSS, O&G (petroleum), metals, and organics.

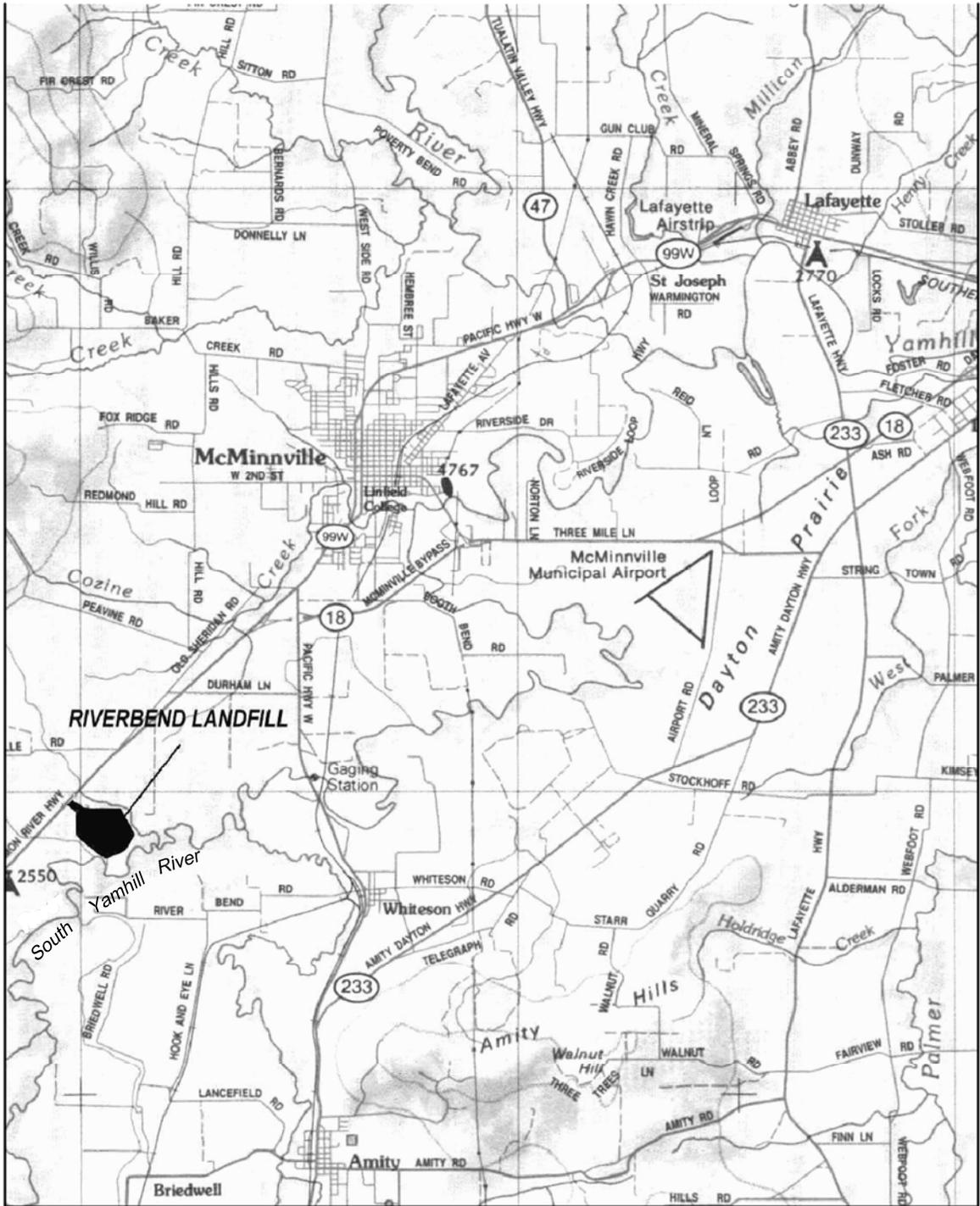
**Table 2-1
Summary of Pollutant Sources and Potential Pollutants
Related to Site Industrial Activities
Riverbend Landfill**

Site Industrial Activity	Site Location(s)	Drainage Area(s)	Potential Pollutant Source(s)	Potential Pollutant(s)
Managing and disposing of leachate.	(1) landfill areas, (2) truck hauling on the site access roads from the leachate pond and leachate storage tanks to the site exit.	Drainage Areas 1, 2, and 6	(1) Overflow/spills during loading and unloading activities and operator error, (2) leachate hauling truck fluids including fuel, oil, hydraulic lines and coolant/ antifreeze, and (3) leachate hauling truck spills/leaks of leachate liquid.	TSS, O&G (fuel, petroleum, hydraulic fluids), metal, ammonia, bacteria, and organics.
Earth and soil moving.	(1) Site access roads to the areas of the landfill and (2) borrow area.	Drainage Areas 1, 2, 4, and 6	(1) Leaking equipment/vehicle fluids including fuel, oil, hydraulic lines and coolant/antifreeze, and (2) sediment from erosion.	TSS, O&G (fuel, petroleum, hydraulic fluids), metals, and organics.

**Table 5-1
Stormwater Pollution Control Plan Monitoring Program
Riverbend Landfill**

NPDES 1200-Z Permit Monitoring Programs and Parameters	NPDES 1200-Z Permit Benchmark, Reference, or Limitation Concentrations	Monitoring Frequency	Monitoring Schedule During Five-Year NPDES 1200-Z Permit Cycle
<u>Inspections</u>			
Visual Monitoring of Stormwater Discharge at Outfalls 1C, 2, 4, and 6	No visible oil sheen, floating solids (associated with industrial activities), foam, or discoloration	Monthly ^{a,b}	All five years of permit coverage
Facility Inspection	Not Applicable	Monthly ^b and Weekly ^c	All five years of permit coverage
<u>Statewide Benchmark Parameters</u>			
Total Copper	0.020 mg/L	Four times per year with (1) 2 samples collected between July 1 and December 31 at least 14 days apart and (2) 2 samples collected between January 1 and June 30 at least 14 days apart	All five years of permit coverage unless Monitoring Variance or Waiver applies
Total Lead	0.040 mg/L		
Total Zinc	0.12 mg/L		
pH	5.5 to 9.0 S.U.		
Total Suspended Solids	100 mg/L		
Total Oil and Grease	10 mg/L		
E. coli	406 counts/100 mL		
<u>Sector-Specific Benchmark Parameter (Applicable to Stormwater Discharge Defined as Non-Contaminated per Schedule E.L of the Permit)</u>			
Total Iron	1.0 mg/L	Four times per year with (1) 2 samples collected between July 1 and December 31 at least 14 days apart and (2) 2 samples collected between January 1 and June 30 at least 14 days apart	All five years of permit coverage unless Monitoring Variance or Waiver applies
<u>Numeric Effluent Limits (Applicable to Stormwater Discharge Defined as Contaminated per Schedule E.L of the Permit)</u>			
Biological Oxygen Demand	140 mg/L daily max. or 37 mg/L monthly average max.	One time per year (unless an exceedance is reported [see Section 5.2.3 of SWPCP and Schedule B.2.e.iii of the Permit])	All five years of permit coverage
Total Suspended Solids	88 mg/L Daily Max. or 27 mg/L Monthly Average Max.		
Ammonia	10 mg/L daily max. or 4.9 mg/L monthly average max.		
Alpha Terpineol	0.033 mg/L daily max. or 0.016 mg/L monthly average max.		
Benzoic Acid	0.12 mg/L daily max. or 0.071 mg/L monthly average max.		
p-Cresol	0.025 mg/L daily max. or 0.014 mg/L monthly average max.		
Phenol	0.026 mg/L daily max. or 0.015 mg/L monthly average max.		
Total Zinc	0.20 mg/L daily max. or 0.11 mg/L monthly average max.		
pH	6.0 to 9.0 S.U.		
<u>Additional Pollutants</u>			
Total Cadmium	Not Applicable	Four times per year with (1) 2 samples collected between July 1 and December 31 at least 14 days apart and (2) 2 samples collected between January 1 and June 30 at least 14 days apart	Eight times over the first three years of permit coverage
Total Chromium	Not Applicable		
Total Nickel	Not Applicable		
NOTE:			
^a Monthly visual inspection of stormwater discharge at Outfall 1 should be performed (1) during a storm event and (2) during regular business hours, and (3) under safe conditions.			
^b Results of the visual and facility inspections should be documented on the Monthly Inspection Report Form (see Appendix F of the Stormwater Pollution Control Plan).			
^c Results of the weekly facility inspections should be documented on the Weekly Inspection Report Form (see Appendix H of the Stormwater Pollution Control Plan).			
mg/L = milligrams per liter; S.U. = standard pH units; counts/100 mL = counts per 100 milliliters; max. = maximum.			

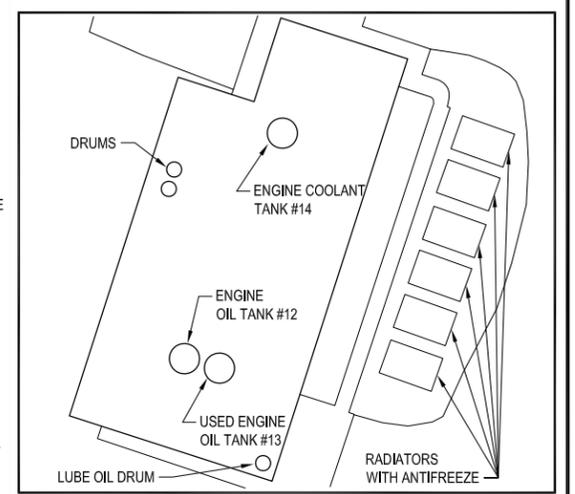
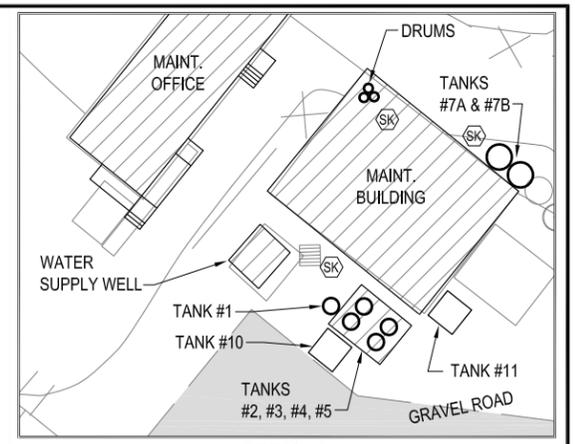
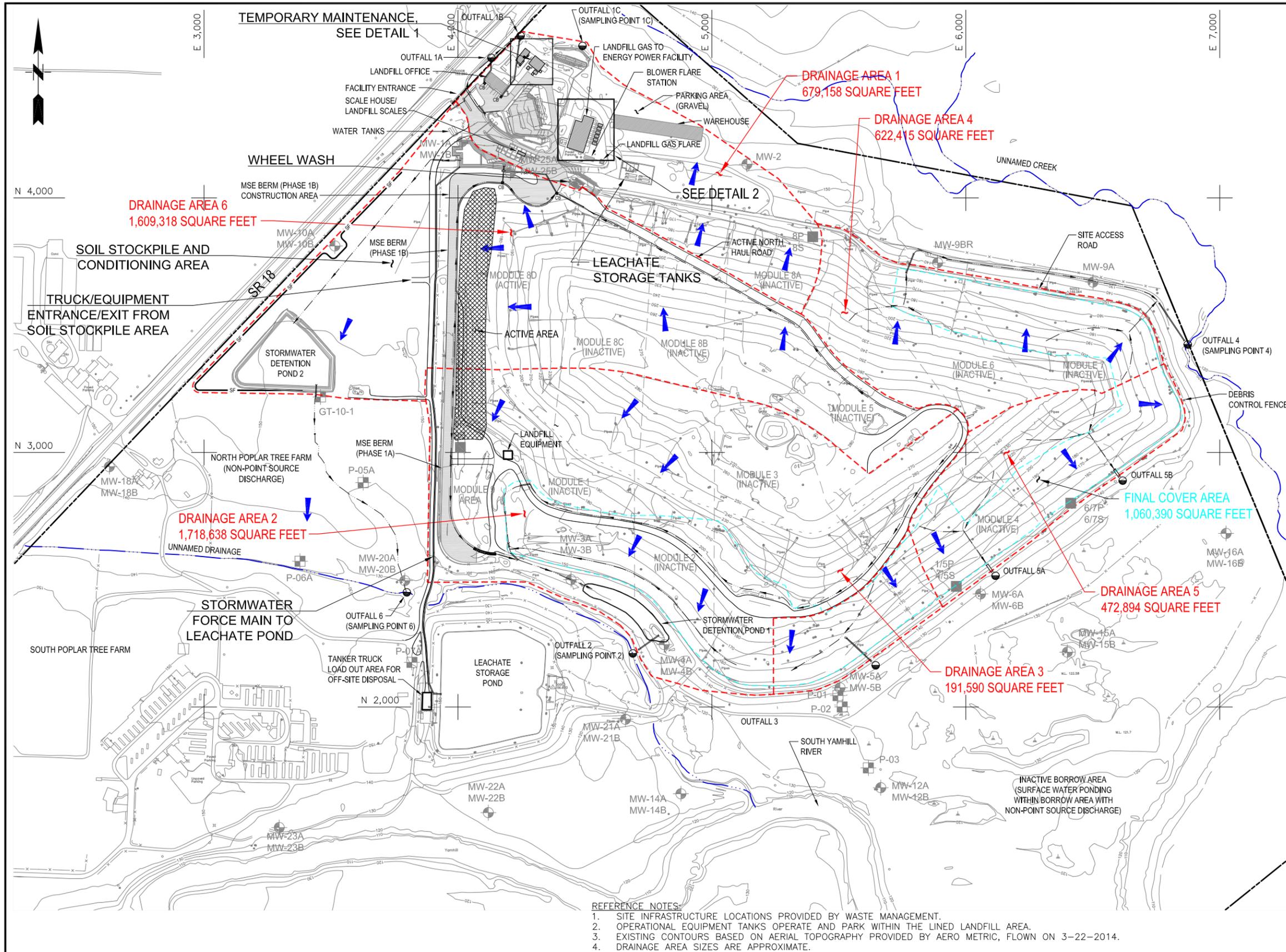
FIGURES



Basemap from Oregon Atlas and Gazetteer (DeLorme)



SCS ENGINEERS Environmental Consultants and Contractors 14945 SW Sequoia Parkway, Suite 180 Portland, Oregon 97224 (503) 639-9201 FAX: (503) 684-6948	PROJECT NO. 04212024.15	DES BY J.D.	SITE LOCATION MAP STORMWATER POLLUTION CONTROL PLAN RIVERBEND LANDFILL McMINNVILLE, OREGON	DATE JUNE 2015
	SCALE AS SHOWN	CHK BY J.D.		FIGURE
	CAD FILE FIGURE 1-1	APP BY L.C.		1-1

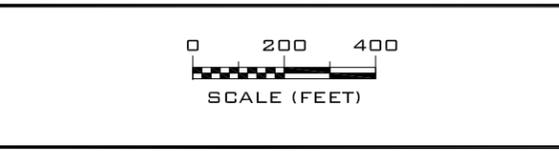


LEGEND

- DRAINAGE AREA BOUNDARY
- FINAL COVER BOUNDARY
- LANDFILL MODULE BOUNDARY
- PROPERTY BOUNDARY
- 10 FOOT CONTOUR LINE
- STORMWATER OUTFALL
- DRUM
- TANK
- RECYCLE BIN
- PAVED AREAS
- SPILL KIT
- CATCH BASIN
- ← SURFACE DRAINAGE
- STORMWATER CONVEYANCE PIPE
- STORMWATER DRAINAGE DITCH
- SILT FENCE LINE
- GROUNDWATER MONITORING WELL
- PIEZOMETER
- ON-SITE WATER WELL
- LCRS AND LSCS MONITORING LOCATION

- REFERENCE NOTES:**
1. SITE INFRASTRUCTURE LOCATIONS PROVIDED BY WASTE MANAGEMENT.
 2. OPERATIONAL EQUIPMENT TANKS OPERATE AND PARK WITHIN THE LINED LANDFILL AREA.
 3. EXISTING CONTOURS BASED ON AERIAL TOPOGRAPHY PROVIDED BY AERO METRIC, FLOWN ON 3--22--2014.
 4. DRAINAGE AREA SIZES ARE APPROXIMATE.

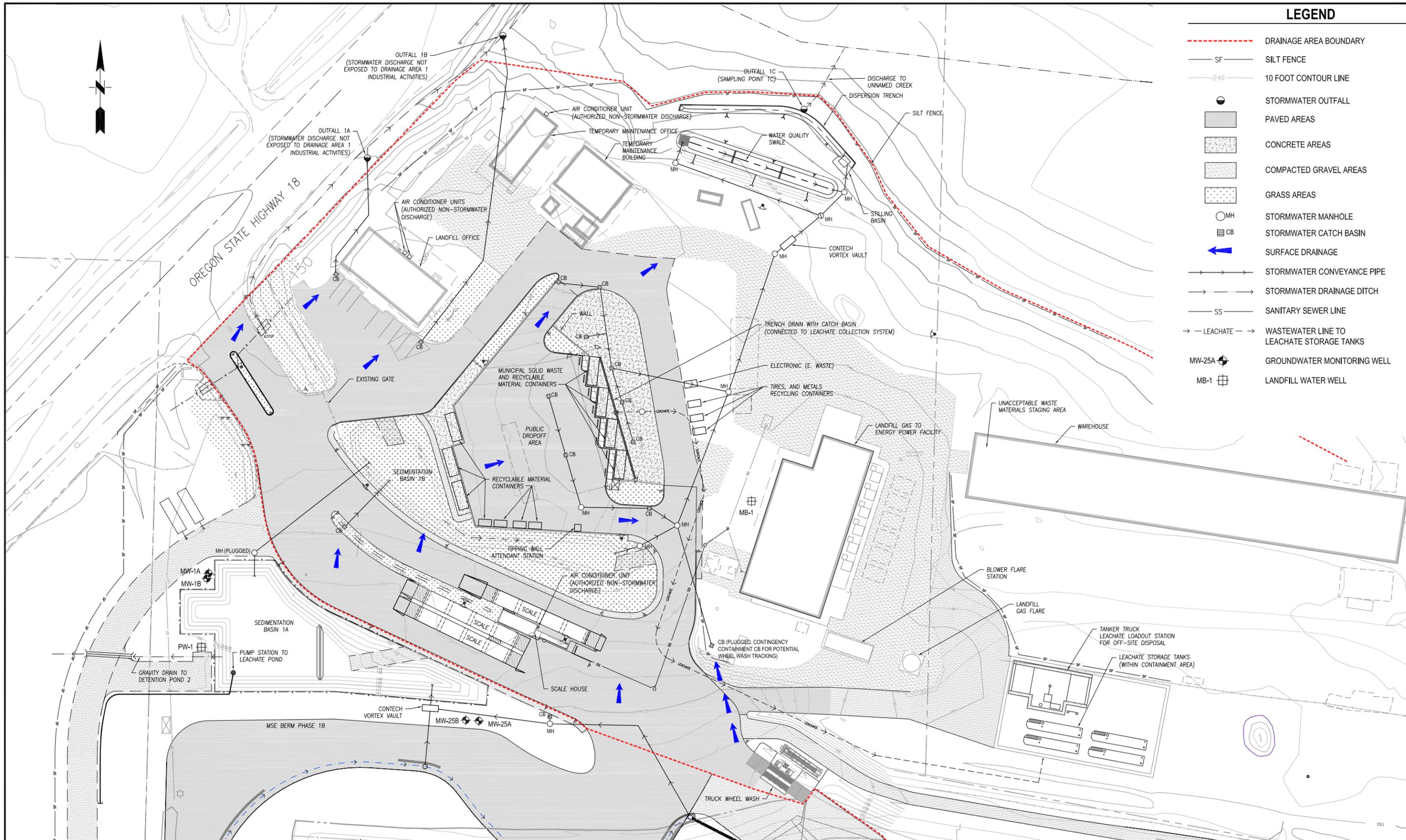
SCS ENGINEERS
Environmental Consultants and Contractors
14945 SW Sequoia Parkway, Suite 180
Portland, Oregon 97224
(503) 639-9201 FAX: (503) 684-6948



PROJECT NO.	04212024.16	DES BY	J.D.
SCALE	AS SHOWN	CHK BY	J.D.
CAD FILE	FIGURE 1-2	APP BY	L.C.

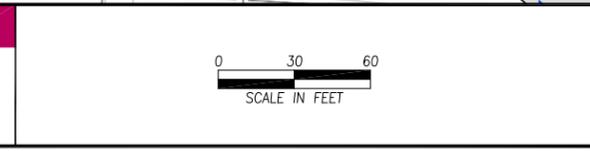
SITE PLAN	
STORMWATER POLLUTION CONTROL PLAN	
RIVERBEND LANDFILL McMINNVILLE, OREGON	

DATE	JANUARY 2016
FIGURE	1-2



LEGEND	
	DRAINAGE AREA BOUNDARY
	SILT FENCE
	10 FOOT CONTOUR LINE
	STORMWATER OUTFALL
	PAVED AREAS
	CONCRETE AREAS
	COMPACTED GRAVEL AREAS
	GRASS AREAS
	STORMWATER MANHOLE
	STORMWATER CATCH BASIN
	SURFACE DRAINAGE
	STORMWATER CONVEYANCE PIPE
	STORMWATER DRAINAGE DITCH
	SANITARY SEWER LINE
	WASTEWATER LINE TO LEACHATE STORAGE TANKS
	GROUNDWATER MONITORING WELL
	LANDFILL WATER WELL

SCS ENGINEERS
 Environmental Consultants and Contractors
 14945 SW Sequoia Parkway, Suite 180
 Portland, Oregon 97224
 (503) 639-9201 FAX: (503) 684-6948



REFERENCE NOTES:
 1. FRONT ENTRANCE FACILITY INFRASTRUCTURE LOCATIONS PROVIDED BY WASTE MANAGEMENT AND WALLIS ENGINEERING.
 2. EXISTING CONTOURS BASED ON AERIAL TOPOGRAPHY PROVIDED BY AERO METRIC, FLOWN ON 3-22-2014.

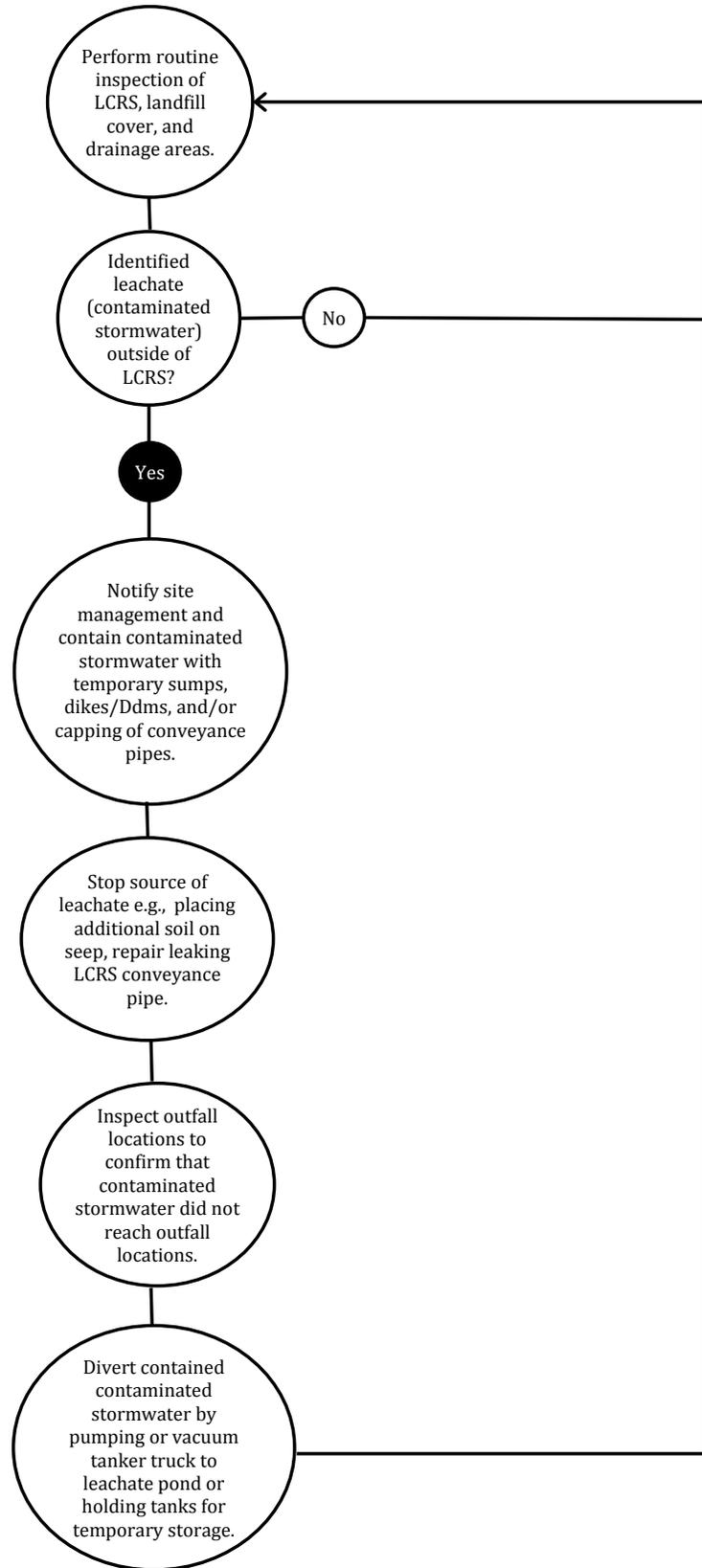
PROJECT NO.	04212024.16	DES BY	J.D.
SCALE	AS SHOWN	CHK BY	J.D.
CAD FILE	FIGURE 1-3	APP BY	L.C.

**DRAINAGE AREA 1
 FRONT ENTRANCE FACILITY
 STORMWATER POLLUTION CONTROL PLAN**
 RIVERBEND LANDFILL
 McMinnville, Oregon

DATE	JANUARY 2016
FIGURE	1-3

Figure 3-2

Flow Chart for Inspection of Potential Contaminated Stormwater Outside of the LCRS



APPENDIX A

National Pollutant Discharge Elimination System 1200-Z Industrial Stormwater General Permit



Oregon

John A. Kitzhaber, MD, Governor

Department of Environmental Quality

Western Region Eugene Office

165 East 7th Avenue, Suite 100

Eugene, OR 97401

(541) 686-7838

FAX (541) 686-7551

TTY 711



June 13, 2013

Mr. Paul Burns
Waste Management
Riverbend Landfill
13469 SW Highway 18
McMinnville, OR 97128

RE: NPDES 1200-Z Industrial Stormwater Discharge Permit Renewal

Common Name: Riverbend Landfill

File Number: 106959

SIC Codes: 4653

Dear Mr. Burns:

DEQ has assigned your site coverage under the revised 1200-Z permit. The revised permit is effective July 1, 2012 through June 30, 2017. Due to the size of the permit, DEQ is providing the first two pages of the permit. The rest of the permit can be downloaded from <http://www.deq.state.or.us/wq/wqpermit/docs/general/npdes1200z/Final1200Zpermit.pdf> If you need a hard copy of the permit, please contact Kathy Jacobsen at (541)687-7326 or jacobsen.kathy@deq.state.or.us . **Please review the permit carefully. Some of the major changes to the permit are listed below.**

You are required to meet monitoring and corrective action requirements depending on the year of permit coverage (1st, 2nd, 3rd, 4th). The table below provides the date ranges for meeting these requirements.

1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year
July 1, 2012 to June 30, 2013	July 1, 2013 to June 30, 2014	July 1, 2014 to June 30, 2015	July 1, 2015 to June 30, 2016	July 1, 2016 to June 30, 2017

Response to Benchmark Exceedances:

There are tiered corrective action responses for benchmark exceedances. (Please see pages 17 and 18 of permit). The Tier II corrective action requirements are triggered in the 2nd year you are operating under the new permit. **Please use the benchmark monitoring data collected from your site during the July 2013 to June 2014 monitoring year to calculate the 2nd year geometric mean.**

Monitoring:

You must monitor for the pollutant parameters in the attached table. There are new pollutant parameters to monitor such as impairment pollutants, additional pollutants, and sector specific benchmarks and numeric effluent limits for certain industrial sectors (please see pages 19 and 21 of permit). If a parameter is listed more than once in the attached table, you must sample according to the highest frequency and the laboratory results must meet the lowest concentration.

If you provided sampling information in your plan that is different than the information in the attached table, you will need to modify the plan to conform to the table. You do *not* need to send the modified plan to DEQ.

If you have any questions about this permit, please contact Mindi English at english.mindi@deq.state.or.us or (541)686-7763 or (541) 686-7838. Please send all written correspondence, including submittal of DMRs, to: Industrial Stormwater Program, Oregon Department of Environmental Quality, Western Region – Eugene, 165 E. 7th Avenue, Suite 100, Eugene OR 97401, attn: Mindi English. For general information, including technical assistance on Best Management Practices and forms, please visit the DEQ website: <http://www.deq.state.or.us/wq/stormwater/industrial.htm>.

Sincerely,



Kathy Jacobsen
Water Quality Permit Coordinator
Western Region – Eugene Office
jacobsen.kathy@deq.state.or.us
(541) 687-7326

Attachments: Monitoring Table
Sector Specific Requirements
1200-Z Permit Cover Page

cc: File
Mr. Jeff O'Leary, Waste Management Riverbend Landfill, 13469 SW Highway 18, McMinnville,
OR 97128

Riverbend Landfill
File No. 106959
Yamhill County

Statewide Benchmarks

Parameter	Benchmark	Frequency*
Total Copper	0.020 mg/L	Four (4) times per year
Total Lead	0.040 mg/L	Four (4) times per year
Total Zinc	0.12 mg/L	Four (4) times per year
pH	5.5 - 9.0 su	Four (4) times per year
TSS	100 mg/L	Four (4) times per year
Oil & Grease	10 mg/L	Four (4) times per year
E. Coli	406 counts /100 mg/L	Four (4) times per year

* Two (2) samples are to be collected between January 1 and June 30, and two (2) samples collected between July 1 and December 31 each year.

mg/L = milligrams per liter

s.u. = standard units

Note: If statewide benchmarks are exceeded, please refer to Schedule A.10.i-iii (pgs 16-17) of the permit for appropriate corrective actions.

Additional Pollutants

Parameter	Frequency
Total Cadmium	Eight (8) times over the first three (3) years of permit coverage
Total Chromium	Eight (8) times over the first three (3) years of permit coverage
Total Nickel	Eight (8) times over the first three (3) years of permit coverage

Sector - Specific Benchmarks

Parameter	Benchmark	Frequency*
Total Iron	1.0 mg/L	Four (4) times per year

* Two (2) samples are to be collected between January 1 and June 30, and two (2) samples collected between July 1 and December 31 each year.

mg/L = milligrams per liter

Sector-specific benchmark monitoring required only for discharges not subject to effluent limitations in 40 CFR Part 445 Subpart B (see effluent limitations table below).

Note: If sector-specific benchmark is exceeded, please refer to Schedule A.10.i-iii (pgs 16-17) of the permit for appropriate corrective actions

**Riverbend Landfill
File No. 106959
Yamhill County**

Numeric Effluent Limit Guidelines*

Parameter	Effluent Limit
Biochemical Oxygen Demand (BOD ₅)	140 mg/L, daily maximum
	37 mg/L, monthly avg. maximum
Total Suspended Solids (TSS)	88 mg/L, daily maximum
	27 mg/L, monthly avg. maximum
Ammonia	10 mg/L, daily maximum
	4.9 mg/L, monthly avg. maximum
Alpha Terpineol	0.033 mg/L, daily maximum
	0.016 mg/L monthly avg. maximum
Benzoic Acid	0.12 mg/L, daily maximum
	0.071 mg/L, monthly avg. maximum
p-Cresol	0.025 mg/L, daily maximum
	0.014 mg/L, monthly avg. maximum
Phenol	0.026 mg/L, daily maximum
	0.015 mg/L, monthly avg. maximum
Total Zinc	0.20 mg/L, daily maximum
	0.11 mg/L, monthly avg. maximum
pH	Within the range of 6-9 standard pH units (s.u.)
<p><i>* One time per Year, unless exceedance occurs. mg/L = milligrams per liter s.u. = standard units</i></p> <p><i>Discharges from non-hazardous waste landfills subject to effluent limitations in 40 CFR Part 445 Subpart B. Permit registrants subject to effluent limit guidelines must monitor for the parameters in Schedule A.2 of the permit at each outfall containing the discharges from activities identified in the guidelines.</i></p> <p><i>Note: If a numeric effluent limit is exceeded, refer to Schedule B.2.e.iii and Schedule B.9 of the permit for required corrective actions.</i></p>	

Reference Concentrations for Impairment Pollutants

Stream Name: Unnamed Creek and Unnamed Drainage

LLID#: N/A

There are no monitoring requirements related to these 303d listed river segments.

Riverbend Landfill
File No. 106959
Yamhill County

Inspection and Record Keeping Requirements

Inspection Location	Reason Inspected	Frequency	Recorded Information Required
Outfalls	Floating Solids, Foam, Visible Oils Sheen, Discoloration or Other Pollutants Discharging to Receiving Waters	Monthly – when storm water discharge is occurring	Date, Time, Control Measure Maintenance Required, Previously Unidentified Pollutants, and Presence of Solids (Associated with the Industrial Activity)
Inspection Location	Reason Inspected	Frequency	Recorded Information Required
Residue and Trash	Evidence of Stormwater Contact	Monthly	Date, Time, Control Measure Maintenance Required, Previously Unidentified Pollutants
Industrial Equipment, Drums, Tanks, and Containers	Evidence of Leaks or Spills	Monthly	Date, Time, Control Measure Maintenance Required, Previously Unidentified Pollutants
Entrances and Exits	Tracking/Blowing of Raw, Final, or Waste Materials	Monthly	Date, Time, Control Measure Maintenance Required, Previously Unidentified Pollutants
Stormwater Drainage System	Pollutants Entering the System	Monthly	Date, Time, Control Measure Maintenance Required, Previously Unidentified Pollutants
Stormwater Control Measures	Ensure Proper Functionality	Monthly	Date, Time, Control Measure Maintenance Required, Previously Unidentified Pollutants
Sector Specific	Sector Specific	Monthly	Sector Specific
<i>Note: Required recorded information must be documented in an inspection report that is retained on-site and submitted to DEQ or Agent upon request.</i>			

Permit Number: 1200-Z
Effective: July 1, 2012
Expiration: June 30, 2017
Page 1 of 96

GENERAL PERMIT
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
STORMWATER DISCHARGE PERMIT
Department of Environmental Quality
811 S.W. Sixth Avenue, Portland, OR 97204
Telephone: (503) 229-5630 or 1-800-452-4011 toll free in Oregon
Issued pursuant to ORS 468B.050 and The Federal Clean Water Act

REGISTERED TO: 106959

Riverbend Landfill Co.
13469 SW Highway 18
McMinnville, OR 97128-8634

Date Issued: 6/13/2013

Yamhill County
EPA #: ORR50-1547
River Mile: 21
LLID: 1231445452258

SITE LOCATION: Riverbend Landfill, 13469 SW Highway 18, McMinnville

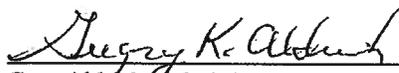
SOURCES THAT ARE REQUIRED TO OBTAIN COVERAGE UNDER THIS PERMIT

A facility that may discharge stormwater from a point source to surface waters or to conveyance systems that discharge to surface waters of the state and

- 1) The stormwater is associated with an industrial activity identified in *Table 1: Sources Covered* on p. 3; or
- 2) The facility is notified in writing by the Director that coverage under this permit is required for its stormwater discharges (see Note 1 below).

Note 1:

- 1) Facility is designated by the Director as needing a stormwater permit pursuant to 40 CFR §122.26(a)(9)(i)(D). Facility discharges stormwater associated with an industrial activity that is not described in *Table 1: Sources Covered* on p. 3 below.
- 2) Facilities may apply for conditional exclusion from the requirement to obtain coverage under this permit if there is no exposure of industrial activities and materials to stormwater pursuant to 40 CFR §122.26(g); see Permit Coverage and Exclusion from Coverage on p. 5 below.
- 3) The following activities are not required to obtain coverage under this permit:
 - (i) Construction activities; asphalt mix batch plants; concrete batch plants; and Standard Industrial Classification code 14, Mining and Quarrying of Nonmetallic Minerals, Except Fuels, and industrial stormwater discharges to the Columbia Slough Watershed or to conveyances leading to the Columbia Slough. These activities are required to obtain coverage under separate general permits.
 - (ii) Any source that has obtained an individual NPDES permit for the discharge, unless the source is otherwise eligible for coverage under this permit and DEQ has approved the source's application for coverage under it.
 - (iii) Any source that discharges to a sanitary sewer system and the discharge is approved by the sanitary sewer operator.


Greg Aldrich, Administrator
Water Quality Division

Issuance Date: Oct. 1, 2011
Amended Date: March 28, 2012

PERMITTED ACTIVITIES

Until this permit expires, is modified or revoked, the permit registrant is authorized to construct, install, modify, or operate stormwater treatment or control facilities, and to discharge stormwater and non-stormwater discharges specifically authorized by the permit to public waters in conformance with all the requirements, limitations, and conditions set forth in the following schedules:

	<u>Page</u>
Permit Coverage and Exclusion From Coverage.....	5
Schedule A - Technology Based Limitations, Water Quality Based Limitations, Stormwater Pollution Control Plan, Benchmarks and Corrective Actions	10
Schedule B - Monitoring and Reporting Requirements	19
Schedule C - Compliance Schedules	N/A
Schedule D- Special Conditions.....	25
Schedule E - Sector Specific Requirements.....	28
Schedule F - General Conditions.....	90

Unless specifically authorized by this permit, by regulation issued by EPA, by another NPDES permit, or by Oregon Administrative Rule, any other direct or indirect discharge to waters of the state is prohibited, including discharges to an underground injection control system.

Schedule F contains General Conditions that are included in all general permits issued by DEQ. Should conflicts arise between Schedule F and any other schedule of the permit, the requirements in Schedule F will not apply.

Table 1. Sources Covered

Types of Industrial Sources Required to Obtain Coverage Under this Permit
<p>Facilities with the following primary Standard Industrial Classification (SIC) codes:</p> <ul style="list-style-type: none"> 10 Metal Mining 12 Coal Mining 13 Oil and Gas Extraction 20 Food and Kindred Products 21 Tobacco Products 22 Textile Mill Products 23 Apparel and Other Finished Products Made From Fabrics and Similar Material 24 Lumber and Wood Products, Except Furniture and 2491 Wood Preserving. (Activities with SIC 2411 Logging that are defined in 40 CFR §122.27 as silvicultural point source discharges are covered by this permit.) 25 Furniture and Fixtures 26 Paper and Allied Products 27 Printing, Publishing and Allied Industries 28 Chemicals and Allied Products (excluding 2874 Phosphate Fertilizer Manufacturing) 29 Petroleum Refining and Related Industries 30 Rubber and Miscellaneous Plastics Products 31 Leather and Leather Products 32 Stone, Clay, Glass, and Concrete Products 33 Primary Metal Industries 34 Fabricated Metal Products, Except Machinery and Transportation Equipment 35 Industrial and Commercial Machinery and Computer Equipment 36 Electronic and Other Electrical Equipment and Components, Except Computer Equipment 37 Transportation Equipment 38 Measuring, Analyzing, and Controlling Instruments; Photographic, Medical and Optical Goods; Watches and Clocks 39 Miscellaneous Manufacturing Industries 4221 Farm Product Warehousing and Storage 4222 Refrigerated Warehousing and Storage 4225 General Warehousing and Storage 5015 Motor Vehicle Parts, Used 5093 Scrap and Waste Materials
<p>Facilities with the following primary SIC codes that have vehicle maintenance shops (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, or airport deicing operations:</p> <ul style="list-style-type: none"> 40 Railroad Transportation 41 Local and Suburban Transit and Interurban Highway Passenger Transportation 42 Motor Freight Transportation and Warehousing (excluding 4221 Farm Product Warehousing and Storage, 4222 Refrigerated Warehousing and Storage, and 4225 General Warehousing and Storage) 43 United States Postal Service 44 Water Transportation 45 Transportation by Air 5171 Petroleum Bulk Stations and Terminals, except as provided in Note 1 below.
<p>Facilities storing, transferring, formulating, or packaging bulk petroleum products or vegetable oils, except as provided in the note below.</p>
<p>Steam Electric Power Generation including coal handling sites</p>
<p>Landfills, land application sites and open dumps</p>
<p>Hazardous Waste Treatment, Storage and Disposal Facilities.</p>
<p>Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, recycling, and reclamation of municipal or domestic sewage (including land dedicated to the disposal of sewage sludge that are located within the confines of the facility) with the design flow capacity of 1.0 mgd or more, or required to have a pretreatment program under 40 CFR §403.</p>

Note 1: Exemption for facilities storing, transferring, formulating, or packaging bulk petroleum products or vegetable oils:

A discharge permit is not needed if discharges are only from:

- 1) Stormwater that contacts oil-filled electrical equipment in transformer substations that are equipped with properly functioning oil spill prevention measures such as containment areas or oil/water separators.
- 2) Stormwater that contacts petroleum product receiving or dispensing areas or product dispensing equipment from which product is dispensed to final users, whether or not the stormwater is treated by an oil/water separator.
- 3) Stormwater that collects in a secondary containment area at a petroleum product dispensing site, where the secondary containment area is associated with storage tanks from which product is dispensed only to final users, and the discharge from the containment area is treated by an oil/water separator.
- 4) Stormwater that collects in a secondary containment area at a bulk petroleum product storage site, where the total storage capacity at the site does not exceed 150,000 gallons, and the discharge from the containment area is treated by an oil/water separator. A site with multiple containment areas is considered a single site for determining total storage capacity.

PERMIT COVERAGE AND EXCLUSION FROM COVERAGE

1. New Discharger to Impaired Waters (see Schedule D.3, Definitions)

- a. A new discharger to an impaired water without a Total Maximum Daily Load (TMDL) for pollutant(s) must meet the following conditions to obtain coverage under this permit, cease the discharge or obtain an individual permit:
 - i. Prevent all exposure to stormwater of the pollutant(s) for which the waterbody is impaired and document in the Stormwater Pollution Control Plan (SWPCP) procedures taken to prevent exposure onsite;
 - ii. Document in SWPCP that the pollutant(s) for which the waterbody is impaired is not present at the site, or
 - iii. Provide data and other technical information that demonstrates that the discharge is not expected to cause or contribute to an exceedance of the water quality standard for which the waterbody is impaired at the point of discharge to the waterbody if the pollutant(s) for which the waterbody is impaired are likely to be present at the site and DEQ has not issued a TMDL for the pollutant(s).
- b. A new discharger to an impaired water with a TMDL for pollutant(s) must meet the following conditions to obtain coverage under the permit:
 - i. DEQ presumes that compliance with the terms and conditions of the permit complies with the TMDL and will grant the owner or operator coverage under the permit, unless the TMDL establishes wasteload allocation(s) and additional requirements for industrial stormwater discharges.
 - ii. DEQ will inform the applicant if any additional limits or controls are necessary to be consistent with the assumptions of the wasteload allocation(s) in the TMDL(s), or if coverage under an individual permit is necessary.
- c. Conditions 1.a and b above do not apply if the waterbody is impaired for:
 - i. Biological communities and no pollutant, including indicator or surrogate pollutants, is specified as causing the impairment; or
 - ii. Temperature, hydrologic modifications, or impaired hydrology.

2. New Application for Permit Coverage

- a. The following facilities that are required to obtain coverage under this permit must:
 - i. New facility – Submit to DEQ or Agent (see Schedule D.4 for description of Agent) at least 60 calendar days before the planned activity that requires permit coverage, unless a later date is approved by DEQ or Agent, a complete application that includes the following:
 1. DEQ-approved application form;
 2. One paper copy and one electronic PDF of the SWPCP. If an Agent is receiving the application materials, submit two copies of the SWPCP; and
 3. Applicable permit fees.
 - ii. Existing facility with stormwater discharges associated with industrial activities identified in *Table 1: Sources Covered* on p. 3 and operating without coverage under any NPDES permit for those discharges – Immediately submit to DEQ or Agent, unless a later date is approved by DEQ or Agent, a complete application that includes the following:
 1. DEQ-approved application form;
 2. One paper copy and one electronic PDF of the SWPCP. If an Agent is receiving the application materials, submit two copies of the SWPCP; and
 3. Applicable permit fees.
 - iii. Existing facility that is designated by the Director as needing a stormwater permit pursuant to 40 CFR §122.26(a)(9)(i)(D) or is conducting an industrial activity that is not described in *Table 1: Sources Covered* on p. 3 that is notified by the Director that coverage under this permit is required (see Note 1 of the cover page of the permit) – Within 90 calendar days of

- being notified by DEQ that permit coverage is required, submit to DEQ or Agent a complete application that includes the following:
1. DEQ-approved application form;
 2. One paper copy and one electronic PDF of the SWPCP. If an Agent is receiving the application materials, submit two copies of the SWPCP; and
 3. Applicable permit fees.
- iv. Existing facility operating under permit coverage that intends to change industrial processes at the site to a new primary industrial sector – Submit to DEQ or Agent at least 60 calendar days before the planned change, unless a later date is approved by DEQ or Agent, a complete application that includes the following:
1. DEQ-approved application form;
 2. One paper copy and one electronic PDF of the SWPCP. If an Agent is receiving the application materials, submit two copies of the SWPCP; and
 3. Applicable permit fees.
- v. Existing facility whose stormwater discharges are authorized by an individual NPDES permit and seeks coverage under this permit – Submit to DEQ or Agent a complete application that includes the following:
1. DEQ-approved application form;
 2. One paper copy and one electronic PDF of the SWPCP. If an Agent is receiving the application materials, submit two copies of the SWPCP; and
 3. Applicable permit fees.
- b. Registration
- i. Prior to granting the applicant registration under this permit, DEQ will provide a 30-calendar day public review period. DEQ will respond in writing to any public comments on the applicant's SWPCP.
 - ii. DEQ or Agent will notify the applicant in writing if registration is granted or denied.
 - iii. If registration is denied or the applicant does not wish to be regulated by this permit, the applicant may apply for an individual permit in accordance with OAR 340-045-0030.

3. Renewal Application Requirements for Facilities that DID NOT Exceed Benchmark(s) Based on the 4th year Benchmark Evaluation of Data Collected by July 2011 pursuant to Schedule A.10 of 1200-Z permit that expires in June 2012.

- a. To ensure uninterrupted permit coverage for industrial stormwater discharges, an owner or operator of a facility registered under the 1200-Z permit that expires on June 30, 2012 must submit to DEQ or Agent, by March 31, 2012, unless a later date is approved in writing by DEQ or Agent, a complete application that includes the following:
- i. DEQ-approved renewal application form; and
 - ii. One paper copy and one electronic PDF of an updated SWPCP that meets the requirements of the new permit. If an Agent is receiving the application materials, submit two copies of the SWPCP.
- b. Registration
- i. Prior to granting the applicant registration under this permit, DEQ will provide a 30-calendar day public review period.
 - ii. DEQ or Agent will notify the applicant in writing if registration is approved or denied.
 - iii. If registration is denied or the applicant does not wish to be regulated by this permit, the applicant may apply for an individual permit in accordance with OAR 340-045-0030. If the applicant applies for an individual permit in accordance with OAR 340-045-0030, the applicant's coverage under this permit will continue until DEQ grants or denies the applicant's individual permit application.

4. Renewal Application Requirements for Facilities that Exceed Benchmark(s) based on the 4th year Benchmark Evaluation of Data Collected by July 2011 pursuant to Schedule A.10 of 1200-Z permit that expires in June 2012.

- a. To ensure uninterrupted permit coverage for industrial stormwater discharges, an owner or operator of a facility registered under the 1200-Z permit that expires on June 30, 2012 must submit to DEQ or Agent, by March 31, 2012, unless a later date is approved in writing by DEQ or Agent, a complete application that includes the following:
 - i. DEQ-approved renewal application form; and
 - ii. One paper copy and one electronic PDF of an updated SWPCP that meets the requirements of the new permit. If an Agent is receiving the application materials, submit two copies of the SWPCP.
 1. The owner or operator must include additional treatment measures in the SWPCP, which may include a combination of source control and treatment measures, with the goal of achieving the benchmark(s) in Schedule A.9 of the permit in future discharges. Include in the SWPCP the rationale for the selection of the treatment measures and the projected reduction of pollutant concentration(s). A licensed professional engineer (PE) or certified engineering geologist (CEG) shall design and stamp the portion of the SWPCP that addresses the treatment measures.
 2. The owner or operator may request a waiver including the additional treatment measures in the SWPCP if:
 - (a) The benchmark exceedance(s) is attributed solely to the presence of the pollutant(s) in natural background and is not associated with industrial activities at the site (see Schedule D.3, Definitions). The updated SWPCP must include the investigation and analysis used to demonstrate that the exceedances are due to natural background conditions and include any data collected by the permit registrant or others (including literature studies) that describe the levels of natural background pollutants in the discharge.
 - (b) Owner or operator implements or has implemented volume reduction measures, such as low impact development practices, that have or will result in reductions of the mass load of pollutants in the discharge below the mass equivalent of the benchmarks in Schedule A.9 of the permit. The updated SWPCP must include data and analysis to support this determination, including the description of the measure(s), date(s) implemented or expected to be implemented and the mass load analysis.
- b. Registration
 - i. Prior to granting the applicant registration under this permit, DEQ will provide a 30-calendar day public review period. DEQ will respond in writing to any public comments on the applicant's updated SWPCP.
 - ii. DEQ or Agent will notify the applicant in writing if registration is approved or denied.
 - iii. If registration is denied or the applicant does not wish to be regulated by this permit, the applicant may apply for an individual permit. If the applicant applies for an individual permit in accordance with OAR 340-045-0030, the applicant's coverage under this permit will continue until DEQ grants or denies the applicant's individual permit application.

5. Name Change or Transfer of Permit Coverage

- a. For a name change or transfer of permit coverage between legal entities, the owner or operator must submit to DEQ or Agent within 30 calendar days of the name change or planned transfer, a complete application that includes the following:
 - i. DEQ-approved Name Change or Permit Transfer application form;
 - ii. An updated SWPCP, if revisions are necessary to address changed conditions. Submit one paper copy and one electronic PDF of the SWPCP. If an Agent is receiving the application materials, submit two copies of the SWPCP; and

- iii. Applicable permit fees.
- b. DEQ or Agent will notify the applicant in writing if the transfer is approved or denied. DEQ will transfer coverage under the permit after DEQ approves the application.
- c. For a name change or transfer of permit coverage between legal entities that intend to change industrial processes at the site to a new primary industrial sector, the owner or operator must submit a new application for coverage under this permit as required in condition 2.a.iv above.

6. “No Exposure” Conditional Exclusion from Permit Coverage

- a. An owner or operator that applies under 40 CFR §122.26(g)(2) for a “no exposure” conditional exclusion from coverage under this permit must:
 - i. Protect industrial materials and activities from exposure to rain, snow, snow melt, and runoff by using a storm resistant shelter, except as provided in the Environmental Protection Agency (EPA) Guidance Manual for Conditional Exclusion from Stormwater Permitting Based on “No Exposure” of Industrial Activities to Stormwater (EPA 833-B-00-001, June 2000). Storm resistant shelters with unsealed zinc or copper roofing materials are not eligible for the “no exposure” conditional exclusion.
 - ii. Ensure that contaminated soil or materials from previous operations is not exposed.
 - iii. Complete and sign a certification, on a form approved by DEQ, that there is no stormwater exposure to industrial materials and activities from the entire facility, except as provided in 40 CFR §122.26(g)(2). The EPA Guidance Manual (EPA 833-B-00-001) may be used to determine whether the no exposure criteria are met.
 - iv. Submit the signed certification to DEQ or Agent once every five years. If DEQ or Agent does not comment on the “no exposure” certification within 30 days, the “no exposure” conditional exclusion is deemed approved. DEQ or Agent may notify the applicant in writing or by email of its approval. The owner or operator must keep a copy of the certification on site and any notification of approval on site.
 - v. Allow DEQ or Agent to inspect the facility to determine compliance with the “no exposure” conditions, and allow DEQ or Agent to make any “no exposure” inspection reports available to the public upon request.
 - vi. Submit a copy of the “no exposure” certification to the municipal separate storm sewer system (MS4) operator (i.e., local municipality, district), upon their request, if facility discharges through an MS4; and allow inspection and public reporting by the MS4 operator.
- b. Limitations for obtaining or maintaining the exclusion:
 - i. This exclusion is available on a facility-wide basis only, not for individual outfalls.
 - ii. If industrial materials or activities become exposed to rain, snow, snow melt, or runoff, the conditions for this exclusion no longer apply. In such cases, the discharge becomes subject to enforcement for un-permitted discharge. Any conditionally exempt discharger who anticipates changes in circumstances must apply for and obtain permit coverage before the change of circumstances.
 - iii. DEQ or Agent retains the authority to make a determination that the “no exposure” conditional exclusion no longer applies and require the owner or operator to obtain permit coverage.

7. Authorized Non-Stormwater Discharges

- a. Subject to the terms and conditions of the permit, the following non-stormwater discharges are authorized:
 - i. Discharges from fire-fighting activities.
 - ii. Fire hydrant flushings.
 - iii. Potable water, including water line flushings.
 - iv. Uncontaminated condensate from air conditioners, coolers and other compressors, and from outside storage of refrigerated gases and liquids.

- v. Irrigation drainage.
 - vi. Landscape watering, provided that all pesticides, herbicides, and fertilizer have been applied in accordance with manufacturer's instructions.
 - vii. Pavement wash waters where no detergents or hot water are used, no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed), and surfaces are swept before washing.
 - viii. Vehicle washing that does not use detergents or hot water unless the 1700-A NPDES permit is required for the discharge.
 - ix. Routine external building washdown that does not use detergents or hot water.
 - x. Uncontaminated ground water or spring water.
 - xi. Foundation or footing drains where flows are not contaminated with process materials.
 - xii. Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but not intentional discharges from the cooling tower (e.g., "piped" cooling tower blowdown or drains).
- b. Piping and drainage systems for interior floor drains and process wastewater discharge points must be separated from the storm drainage system to prevent inadvertent discharge of pollutants to waters of the state, unless the process wastewater discharge is authorized by another NPDES permit that allows commingled outfalls. Discharge from floor drains to the stormwater drainage system is a violation of this permit.
 - c. Any other wastewater discharge or disposal, including stormwater mixed with wastewater, must be permitted in a separate permit, unless the wastewater is reused or recycled without discharge or disposal, or discharged to the sanitary sewer with approval from the sanitary sewer system operator.

8. Limitations on Coverage

- a. Pursuant to OAR 340-045-0033(10), DEQ may deny permit coverage to an applicant or revoke a permit registrant's coverage under the permit and require the owner or operator to apply for and obtain an individual permit.
- b. Coverage under this permit is not available under the following circumstances:
 - i. The discharges are regulated by another NPDES permit, except a Municipal Separate Storm Sewer System (MS4) permit.
 - ii. The discharges were included in a permit that has been or is in the process of being denied, terminated or revoked unless the source is otherwise eligible for coverage under this permit and DEQ approves the source's application to register under it and simultaneously revokes coverage under the other permit.
 - iii. New discharger to waters designated as Outstanding Resource Waters for antidegradation purposes under 40 CFR 131.13(a)(3) and OAR 340-041-0004.
- c. Any operator not wishing to be covered or limited by this general permit may make application for an individual NPDES permit in accordance with the procedures in OAR 340-045-0030.

SCHEDULE A

TECHNOLOGY BASED EFFLUENT LIMITATIONS

1. Narrative Technology-Based Effluent Limits

The permit registrant must meet the following narrative technology based effluent limits and any additional sector specific limits in Schedule E of the permit.

- a. Minimize exposure - Minimize exposure of manufacturing, processing, material storage areas, including loading and unloading, disposal, cleaning, maintenance and fixed fueling areas, to rain, snow, snowmelt and runoff. To the extent technologically available and economically practicable and achievable in light of best industry practice, the permit registrant must do the following:
 - i. Locate materials and activities indoors or protect them with storm resistant covers if stormwater from affected areas discharges to surface waters. Acceptable covers include, but are not limited to, permanent structures such as roofs or buildings and temporary covers such as tarps;
 - ii. Use grading, berming, or curbing to divert stormwater away from these areas and prevent stormwater contamination;
 - iii. Store all hazardous substances (see Schedule D.3, Definitions) within berms or other secondary containment devices to prevent leaks and spills from contaminating stormwater. If the use of berms or secondary containment devices is not possible, then store hazardous substances in areas that do not drain to the storm sewer system;
 - iv. Locate materials, equipment and activities in containment and diversion systems, including the storage of leaking or leak-prone vehicles and/or equipment awaiting maintenance, to prevent leaks and spills from contaminating stormwater;
 - v. Use drip pans or absorbents under or around leaking or leak-prone vehicles/equipment or store indoors. Drain fluids from equipment and vehicles prior to on-site storage or disposal;
 - vi. Perform all cleaning operations indoors, under cover or in bermed areas that prevent runoff and run-on and also captures overspray;
 - vii. Clean up spills or leaks promptly using absorbents or other effective methods to prevent discharge of pollutants and use spill/overflow protection equipment, and
 - viii. Ensure that all washwater drains to a proper collection system such as a closed-loop system or sanitary sewer and not discharged to the stormwater drainage system unless the washwater is an authorized non-stormwater discharge listed in condition 7 of the Permit Coverage and Exclusion from Coverage section of the permit.
- b. Oil and Grease - Employ oil/water separators, booms, skimmers or other methods to eliminate or minimize oil and grease contamination of stormwater discharges.
- c. Waste Chemicals and Material Disposal - Recycle or properly dispose of wastes to eliminate or minimize exposure of pollutants to stormwater. Cover all waste contained in bins or dumpsters where there is a potential for drainage of stormwater through the waste to prevent exposure of stormwater to these pollutants. Acceptable covers include, but are not limited to, storage of bins or dumpsters under roofed areas and use of lids or temporary covers such as tarps.
- d. Erosion and Sediment Control - Stabilize exposed areas and contain runoff using structural and nonstructural controls to minimize erosion of soil at the site and sedimentation. Employ erosion control methods such as vegetating exposed areas, graveling or paving to minimize erosion of soil at the site. Employ sediment control methods such as detention facilities, vegetated filter strips, bioswales, flow velocity dissipation devices or other permanent erosion or sediment controls to minimize sediment loads in stormwater discharges. For activities that involve land disturbance, the permit registrant must contact the local municipality to determine if there are other applicable requirements related to stormwater control.

- e. Debris Control - Employ screens, booms, settling ponds, or other methods to eliminate or minimize waste, garbage and floatable debris in stormwater discharges and ensure that this debris is not discharged to receiving waters.
- f. Dust Generation and Vehicle Tracking of Industrial Materials - Minimize generation of dust and off-site tracking of raw, final or waste materials.
- g. Housekeeping - Routinely clean all exposed areas that may contribute pollutants to stormwater using such measures as sweeping at regular intervals, litter pick-up, keeping materials orderly and labeled, prompt clean up of spills and leaks, proper maintenance of vehicles and stowing materials in appropriate containers.
- h. Spill Prevention and Response Procedure - Minimize the potential for leaks, spills and other releases that may be exposed to stormwater and develop plans that include methods for spill prevention and clean-up and notification procedures. At a minimum, the permit registrant must implement the following:
 - i. Procedures for plainly labeling containers (e.g., “Used Oil,” “Spent Solvents,” “Fertilizers and Pesticides,” etc.) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur;
 - ii. Preventative measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling;
 - iii. Procedures for expeditiously stopping, containing, and cleaning up leaks, spills and other releases. Make the methods and procedures available to appropriate personnel. Employees who may cause, detect, or respond to a spill or leak must be trained in these procedures. Have the necessary clean-up material on-site and readily available, and
 - iv. Procedures for notification of appropriate facility personnel, emergency agencies, and regulatory agencies. Contact information must be in locations that are readily accessible and available.
- i. Preventative Maintenance - Regularly inspect, clean, maintain, and repair all industrial equipment and systems and materials handling and storage areas that are exposed to stormwater to avoid situations that may result in leaks, spills, and other releases of pollutants discharged to receiving waters. Clean, maintain and repair all control measures, including stormwater structures, catch basins, and treatment facilities to ensure effective operation and in a manner that prevents the discharge of pollution.
- j. Employee Education - Develop and maintain an employee orientation and education program to inform personnel on the components and goals of the SWPCP. Train all employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of this permit (e.g., inspectors, maintenance personnel). Training must cover both the specific control measures used to achieve the narrative technology based effluent limits such as spill response procedures and good housekeeping practices, and the monitoring, inspection, reporting and documentation requirements in the permit. The education and training must occur within 30 calendar days of hiring an employee who works in areas where stormwater is exposed to industrial activities or conducts duties related to the implementation of the SWPCP, and annually thereafter.
- k. Non-Stormwater Discharges - Eliminate any non-stormwater discharges not authorized by a NPDES permit (see condition 7 of the Permit Coverage and Exclusion from Coverage section of the permit for a list of authorized non-stormwater discharges).

2. Numeric Technology Based Effluent Limits based on Stormwater Specific Effluent Limitations Guidelines - The permit registrant with the following activities must comply with the applicable limitations:

Table 2. Numeric Effluent Limits based on Effluent Limit Guidelines

Regulated Activity	40 CFR Part/Subpart	Effluent Limit
Runoff from asphalt emulsion facilities	Part 443, Subpart A	See Schedule E.D.1
Runoff from material storage piles at cement manufacturing facilities	Part 411, Subpart C	See Schedule E.E.3
Runoff from hazardous waste landfills	Part 445, Subpart A	See Schedule E.K.3
Runoff from non-hazardous waste landfills	Part 445, Subpart B	See Schedule E.L.7
Runoff from coal storage piles at steam electric generating facilities	Part 423	See Schedule E.O.5

3. Control Measures for Technology Based Effluent Limits

- a. The permit registrant must select, design, install, implement and maintain control measures to meet the narrative and numeric technology based effluent limits in Schedule A.1, A.2 and Schedule E of the permit and described these measures in the SWPCP.
- b. For technology based effluent limits that require permit registrants to minimize pollutants in the discharge, permit registrants must reduce or eliminate pollutants to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practice. In selecting the appropriate control measures to meet these limits, permit registrant may consider the age of the equipment and facilities involved, the processes employed, the engineering aspects of the application of various types of control techniques, the pollutant reductions likely to be achieved, any adverse environmental or energy effects of potential measures, and the costs of achieving pollutant reductions.
- c. The permit registrant must select, design, install, implement and maintain the control measures in accordance with good engineering practices and manufacturer’s specifications. If the permit registrant deviates from manufacturer’s specifications provide justification for such deviation in the SWPCP.
- d. DEQ or Agent may require the permit registrant to take corrective actions to meet the narrative and numeric technology based effluent limits in Schedule A.1, A.2 and Schedule E of the permit.
 - i. If the permit registrant is failing to implement the control measures in the SWPCP, they must take corrective actions and implement the measures before the next storm event if practicable, unless otherwise approved by DEQ or Agent.
 - ii. If modifications to the control measures are necessary to meet the technology limits in the permit, permit registrant must revise SWPCP within 30 days, unless otherwise approved by DEQ or Agent. Permit registrant must implement the corrective actions before the next storm event if practicable or no later than 60 days from discovering the violation, unless a later date is approved by DEQ or Agent.

WATER QUALITY BASED EFFLUENT LIMITATIONS

4. Water Quality Standards

- a. The permit registrant must not cause or contribute to a violation of instream water quality standards as established in OAR 340-041.
- b. If at any time the permit registrant becomes aware, or DEQ or Agent determines, that the discharge causes or contributes to an exceedance of water quality standards, permit registrant must take the following corrective actions:
 - i. Within 24 hours of discovering the violation:
 1. Investigate the conditions that triggered the violation and
 2. Review the SWPCP and the selection, design, installation and implementation of control measures to ensure compliance with the permit.
 - ii. Within 30 days of the discovering the violation, submit a Water Quality Standards Corrective Action report to DEQ or Agent that documents the following:
 1. The results of the investigation, including the date the violation discovered and a brief description of the conditions that triggered the violation;
 2. Corrective actions taken or to be taken, including date corrective action completed or expected to be completed, and
 3. Document whether SWPCP revisions are necessary. If permit registrant determines that SWPCP revisions are necessary based on the corrective action review, submit a revised SWPCP to DEQ or Agent with the report.
 - iii. Permit registrant must implement the corrective actions before the next storm event if practicable or no later than 60 days from discovering the violation, unless a later date is approved by DEQ or Agent.
- c. DEQ may impose additional water quality-based limitations on a site-specific basis, or require the permit registrant to obtain coverage under an individual permit, if information in the application, required reports, or from other sources indicates that the discharge is causing or contributing to a violation of water quality standards, either in the receiving waterbody or a downstream waterbody. If DEQ determines that additional site specific requirements are necessary, DEQ will require the permit registrant to revise the SWPCP. DEQ will hold a 30-calendar day public review period on the revised SWPCP.

5. Discharges to Impaired Waters.

- a. Existing Discharger to an Impaired Water with a TMDL for Pollutant(s) - DEQ presumes that compliance with the terms and conditions of the permit complies with the TMDL, unless the TMDL establishes wasteload allocation(s) and additional requirements for industrial stormwater discharges. Permit registrant must meet Schedule A.4 and B.1.b of the permit. DEQ will inform the permit registrant if any additional limits or controls are necessary to be consistent with the assumptions of the wasteload allocation(s) in the TMDL(s), or if coverage under an individual permit is necessary. If DEQ determines that additional site specific requirements are necessary, DEQ will require the permit registrant revise the SWPCP to incorporate the requirements. DEQ will hold a 30-calendar day public review period on the revised SWPCP.
- b. Existing Discharger to an Impaired Water without a TMDL for Pollutant(s) - Permit registrant that discharges to an impaired water on the 303(d) list in effect at the time of permit assignment without a TMDL for the pollutant(s) must meet Schedule A.4 and B.1.b of the permit.
- c. New Discharger to an Impaired Water - New discharges to impaired waters authorized to discharge under this permit must implement and maintain any control measures or conditions on the site that enabled the permit registrant to become eligible for permit coverage and modify such measures or conditions as necessary pursuant to corrective action requirements in the permit. Permit registrant must meet Schedule A.4 and B.1.b of the permit.

STORMWATER POLLUTION CONTROL PLAN

6. Preparation and Implementation of SWPCP

- a. The SWPCP must be prepared by a person knowledgeable in stormwater management and familiar with the facility.
- b. The SWPCP must be signed and certified in accordance with 40 CFR §122.22.
- c. Permit registrants must implement the SWPCP and any revisions to the plan. Failure to implement any of the control measures or practices described in the SWPCP is a violation of the permit.
- d. The SWPCP must be kept current and updated as necessary to reflect any changes to the site. Update the SWPCP within 30 days of making the changes.

7. Required Elements

- a. Title Page - The title page of the SWPCP must contain the following information:
 - i. Name of the site.
 - ii. Name of the site operator or owner.
 - iii. The name of the person(s) preparing the SWPCP.
 - iv. Site or file number as indicated on the permit.
 - v. Contact person's name and telephone number.
 - vi. Physical address, including county, and mailing address if different.
- b. Site Description - The SWPCP must contain the following information, including any information required in Schedule E of the permit:
 - i. A general location map showing the location of the site in relation to surrounding properties, transportation routes, surface waters and other relevant features.
 - ii. A site map including the following:
 1. drainage patterns;
 2. drainage and discharge structures (piping, ditches, etc.);
 3. outline of the drainage area for each stormwater outfall;
 4. paved areas and buildings within each drainage area;
 5. areas used for outdoor manufacturing, treatment, storage, or disposal of significant materials;
 6. existing structural control measures for minimizing pollutants in stormwater runoff;
 7. structural features that reduce flow or minimize impervious areas;
 8. material handling and access areas;
 9. hazardous waste treatment, storage and disposal facilities;
 10. location of wells including waste injection wells, seepage pits, drywells, etc.;
 11. location of springs, wetlands and other surface waterbodies both on site and adjacent to the site;
 12. location of groundwater wells;
 13. location and description of authorized non-stormwater discharges;
 14. location of sampling points; and
 15. location of spill prevention and cleanup materials.
 - iii. A description of industrial activities conducted at the site and significant materials stored, used, treated or disposed of in a manner that allows exposure to stormwater. Include in the description the methods of storage, usage, treatment or disposal.
 - iv. For each area of the site where a reasonable potential exists for contributing pollutants to stormwater runoff, a description of the potential pollutant sources that could be present in stormwater discharges.
 - v. A description of control measures installed and implemented to meet the technology and water quality based requirements in Schedule A.1 –A.5 and any applicable sector specific requirements in Schedule E of the permit. Include in the description how the stormwater

- control measures address potential pollutant sources from industrial activities and significant materials on-site, spills and leaks and authorized non-stormwater discharges.
- vi. An estimate of the amount of impervious surface area (including paved areas and building roofs) and the total area drained by each stormwater outfall to be reported in area units.
 - vii. The name(s) of the receiving water(s) for stormwater drainage. If drainage is to a municipal storm sewer system, the name(s) of the ultimate receiving waters and the name of the municipality.
 - viii. The identification of the discharge outfall(s) and the point(s) where stormwater monitoring will occur as required by Schedule B.2.c. If multiple discharge outfalls exist but will not all be monitored, include a description of the outfalls and data or analysis supporting that the outfalls are representative as described in Schedule B.2.c.ii of the permit.
- c. Procedures and Schedules -The SWPCP must contain the following information to meet the technology based effluent limits in Schedule A.1 of the permit
- i. Spill Prevention and Response Procedure - Procedures for preventing and responding to spills and clean-up and notification procedures. Spills prevention plans required by other regulations may be substituted for this provision provided that stormwater management concerns are adequately addressed and the plan is kept onsite and included with the SWPCP. The location of clean-up materials must either be shown on the site drawings or indicated in the text of the SWPCP.
 - ii. Preventative Maintenance - Preventative maintenance procedures for conducting inspections, maintenance and repairs to prevent leaks, spills, and other releases and a schedule for regular pickup and disposal of waste materials, and inspections for leaks and conditions of drums, tanks and containers.
 - iii. Employee Education – Schedule for employee training.
- d. Monitoring - If an existing facility is renewing their coverage under this permit and included the benchmarks in the SWPCP used for the prior permit, update the SWPCP to reflect the new benchmarks in Schedule A.9 and any applicable sector specific benchmarks in Schedule E of the permit.

8. SWPCP Revisions

- a. Permit registrants must prepare SWPCP revisions in compliance with condition A.6 and clearly identify changes to activities on site and control measures.
- b. Submission of all SWPCP revisions is not required. SWPCP revisions must be submitted only if they are made for any of the following reasons:
 - i. Change in site contact(s);
 - ii. In response to a corrective action or inspection;
 - iii. Changes to the site or control measures that may significantly change the nature of pollutants present in stormwater discharge; or significantly increase the pollutant(s) levels, discharge frequency, discharge volume or flow rate, and
 - iv. Changes to the monitoring locations or outfalls.
- c. If submission of SWPCP revisions is required, permit registrant must submit the revised pages of the SWPCP or site map to DEQ or Agent within 30 days of making the revisions.
- d. Review of the revisions by DEQ or Agent prior to implementation is not required, except revision to location of monitoring locations. If the permit registrant does not receive a response to the revisions from DEQ or Agent within 30 days of receipt, the proposed revisions are deemed accepted.
- e. DEQ or Agent may require the permit registrant revise the SWPCP at any time. The permit registrant must submit the revisions within 30 days, unless a later date is approved by DEQ or Agent.
- f. SWPCP revisions are not subject to public notice and comment unless they are made in response to the water quality based effluent limit requirements in Schedule A.4 and A.5 of the permit.

STORMWATER DISCHARGE BENCHMARKS

9. Benchmarks

Benchmarks and reference concentrations for impairment pollutants are guideline concentrations, not limitations; a benchmark or reference concentration exceedance, therefore, is not a permit violation. They are designed to assist the permit registrant in determining whether its site controls are effectively reducing pollutant concentrations in stormwater discharged from the site. For facilities that are subject to federal limitations in Schedule A.2 of the permit, benchmarks apply to only those pollutants that are not limited by the federal regulations.

The following statewide benchmarks apply to each point source discharge of stormwater associated with industrial activity:

Table 3. Statewide Benchmarks

Parameter	Benchmark
Total Copper	0.020 mg/L
Total Lead	0.040 mg/L
Total Zinc	0.12 mg/L
pH*	5.5 – 9.0 SU
Total Suspended Solids*	100 mg/L
Total Oil & Grease*	10 mg/L
E. coli**	406 counts/100 ml

* See Schedule A.2 for list of facilities subject to federal limitations.

** The benchmark for E. coli applies only to active landfills and sewage treatment plants.

See Schedule E of the permit for the sector specific benchmarks that apply to certain industrial sectors/subsectors.

CORRECTIVE ACTIONS FOR IMPAIRMENT POLLUTANTS AND BENCHMARKS EXCEEDANCES

10. Tier I Corrective Action Response to Exceedances of Impairment Pollutants and Benchmarks:

- a. If stormwater sampling results exceed any of the statewide benchmarks in Schedule A.9 of the permit, sector specific benchmarks in Schedule E of the permit, or reference concentrations for impairment pollutants identified in the permit assignment letter, the permit registrant must within 30 calendar days of obtaining the monitoring results:
 - i. Investigate the cause of the elevated pollutant levels.
 - ii. Review the SWPCP and the selection, design, installation and implementation of control measures to ensure compliance with the permit. If permit registrant determines that SWPCP revisions are necessary based on corrective action review, submit the revised pages of the SWPCP to DEQ or Agent, including a schedule for implementing the control measures.
 - iii. Summarize the following information in a Tier I report that is retained on site and submitted to DEQ or Agent upon request:
 1. The results of the investigation.
 2. Corrective actions taken or to be taken, including date corrective action completed or expected to be completed. Where the permit registrant determines that corrective action is not necessary, provide the basis for this determination.

3. Document whether SWPCP revisions are necessary.
- b. Implement the corrective actions before the next storm event if possible or as soon as practicable.
- c. Permit registrants are exempt from the Tier I corrective action requirements for exceedances of benchmark parameters addressed by the Tier II corrective actions requirements in Schedule A.11 and A.12 below.

11. Tier II Corrective Actions for Facilities that exceeded Benchmarks based on 4th year Benchmark Compliance Evaluation required by 1200-Z permit that expires June 2012 (see Condition 4 of Permit Coverage and Exclusion section)

- a. Permit registrants are exempt from the Tier II corrective action requirements in condition A.12 of the permit.
- b. No later than two years after obtaining permit coverage, the permit registrant must install and implement the stormwater treatment measures.
- c. After the stormwater treatment measures are implemented, if sampling results continue to exceed the same benchmark parameter(s) that triggered the Tier II corrective action requirements, permit registrant must within 30 days of obtaining the sample results, evaluate whether the treatment measures were properly installed, maintained and implemented and whether modifications to these measures are necessary. Summarize these findings in a Tier II Benchmark Exceedance report that is retained on site and submitted to DEQ or Agent annually with the Discharge Monitoring Report form.

12. Tier II Corrective Action Response based on 2nd year Geometric Mean Benchmark Evaluation:

- a. Permit registrants must evaluate the sampling results collected during the 2nd year of permit coverage and determine if the geometric mean of the samples collected at each monitored outfall exceeds any statewide benchmark in Schedule A.9 of the permit. The permit registrant must report this information in Discharge Monitoring Report form for that monitoring year. Permit registrants are not required to conduct this evaluation for the benchmark parameter(s) where DEQ has granted a monitoring waiver in Schedule B.4 of the permit.
- b. For the pH benchmark Tier II corrective action requirements are triggered if more than three samples collected during the first two years of permit coverage are outside of the pH benchmark range.
- c. If the geometric mean of the sampling results for any outfall monitored exceeds any statewide benchmark (or if more than three samples for any outfall are outside of the pH benchmark range), permit registrant must:
 - i. Revised SWPCP
 1. Revise the SWPCP to include additional stormwater treatment measures, which may include a combination of source control and treatment measures, with the goal of achieving the benchmark(s) in Schedule A.9 of the permit in future discharges. Include in the SWPCP the rationale for the selection of the measures, the projected reduction of pollutant concentration(s) and the schedule for implementing these measures.
 2. Have a licensed professional engineer (PE) or certified engineering geologist (CEG) design and stamp the portion of the SWPCP that addresses the stormwater treatment measures.
 3. Submit the revised SWCP to DEQ or Agent by December 31st of the 3rd year of permit coverage. If the permit registrant does not receive a response from DEQ or Agent within 30 days of receipt, the proposed revisions are deemed accepted.
 - ii. Tier II Deadline - Implement the treatment measures by June 30th of the 4th year of permit coverage.
 - iii. After the stormwater treatment measures are implemented, if sampling results continue to exceed the same benchmark parameter(s) that triggered the Tier II corrective action requirements, permit registrant must within 30 days of obtaining the sample results, evaluate

whether the treatment measures were properly installed, maintained and implemented and whether modifications to these measures are necessary. Summarize these findings in a Tier II Benchmark Exceedance report that is retained on site and submitted to DEQ or Agent annually with the Discharge Monitoring Report form.

- d. Tier II Waiver - Permit registrants may request a waiver from the requirements in Schedule A.12.c above if:
- i. The benchmark exceedance(s) is attributed solely to the presence of the pollutant(s) in natural background and is not associated with industrial activities at the site (see Schedule D.3, Definitions). The Tier II waiver report must include the investigation and analysis used to demonstrate that the exceedances are due to natural background conditions and include any data collected by the permit registrant or others (including literature studies) that describe the levels of natural background pollutants in the discharge.
 - ii. Permit registrant implements or has implemented volume reduction measures, such as low impact development practices, that have or will result in reductions of the mass load of pollutants in the discharge below the mass equivalent of the benchmarks in Schedule A.9 of the permit. The Tier II Waiver report must include data and analysis to support this determination, including the description of the measure(s), date(s) implemented or expected to be implemented and the mass load analysis.
 - iii. Permit registrant must submit a Tier II Waiver report to DEQ or Agent by December 31st of the 3rd year of permit coverage. DEQ or Agent will grant or deny the waiver request within 60 days of its receipt.

13. Permit Compliance

- a. Any noncompliance with any of the requirements of this permit constitutes a violation of the Clean Water Act. Failure to take any required corrective actions in Schedule A.10 through A.12 of the permit constitute an independent, additional violation of this permit and the Clean Water Act. Any actions and time periods specified for remedying noncompliance do not absolve parties of the initial underlying violations.
- b. Where corrective action is triggered by an event that does not itself constitute a violation, such as a benchmark exceedance, there is no permit violation for the corrective actions provided that the permit registrant takes the corrective action within the deadlines identified in the permit.
- c. A new permit registrant with a new facility (that begins operation after July 1, 2012) or an existing facility (that was in operation before July 1, 2012 without a stormwater discharge permit) must implement stormwater control measures to meet new technology and water quality based requirements in Schedule A.1 – A.5, including applicable sector specific requirements in Schedule E of the permit, within 90 days of receiving permit coverage. Control measures that require capital improvements must be completed in accordance with the schedule set forth in the SWPCP, but must be completed within two years of receiving permit coverage.

SCHEDULE B MONITORING REQUIREMENTS

1. Pollutant Parameters

- a. Benchmarks - Permit registrants must monitor for the benchmark pollutants identified in Schedule A.9 of the permit. Permit registrants must also monitor for benchmarks specified for industrial sector(s), both the primary industrial activity and any co-located industrial activities, applicable to the discharge in Schedule E of the permit.
- b. Impairment Pollutants
 - i. Permit registrants that discharge to an impaired water without a TMDL for pollutant(s), must monitor for impairment pollutants for which a standard analytical method exists (see 40 CFR Part 136). Permit registrants that discharge to an impaired water with a TMDL are not required to monitor for impairment pollutant addressed by the TMDL, unless the TMDL establishes wasteload allocation(s) and additional requirements for industrial stormwater discharges.
 - ii. Before granting coverage under the permit, DEQ will identify in the permit assignment letter the impairment pollutants that the permit registrants is required to monitor and reference concentrations for these pollutants. The reference concentrations will be based on the acute aquatic life criteria, if criteria are approved for the pollutant. If there is not an acute criteria for the pollutant, DEQ will use the chronic criteria. If there is not a chronic criteria for the pollutant, DEQ will use the human health criteria.
 1. If the pollutant for which the waterbody is impaired is suspended solids, turbidity or sediment/sedimentation, permit registrants must monitor for Total Suspended Solids (TSS).
 2. If the pollutant for which the waterbody is impaired is expressed in the form of an indicator or surrogate pollutant, permit registrants must monitor for that indicator or surrogate pollutant.
 3. No monitoring is required when a waterbody's impairment is due to one of the following:
 - (a) Biological communities are impaired but no pollutant, including indicator or surrogate pollutants, is specified as causing the impairment.
 - (b) When a waterbody's impairment is related to hydrologic modifications, impaired hydrology, or temperature.
- c. Numeric Effluent limits pursuant to Federal Effluent Limit Guidelines - Permit registrants subject to effluent limit guidelines must monitor for the parameters in Schedule A.2 of the permit at each outfall containing the discharges from activities identified in the guidelines.
- d. Additional pollutants - There are no benchmarks, reference concentrations or numeric effluent limits for these pollutants. The purpose of this monitoring is to determine to what extent the pollutants are present in industrial stormwater discharges.
 - i. Permit registrants must monitor for cadmium, nickel, chromium.
 - ii. Permit registrants with the Industrial Sector M (Auto Salvage Facilities, SIC code 5015) as a primary industrial activity and any co-located industrial activities must sample for mercury.
 - iii. Permit registrants with the Sector N (Scrap Recycling Facilities, SIC code 5093), as a primary industrial activity and any co-located industrial must sample for mercury and PCBs.

2. Sampling Procedures

- a. Grab Sampling
 - i. For each outfall monitored, collect a single grab sample of stormwater discharge or a series of composite samples. Grab composite or time or flow weighted composite samples may be used as an alternative, except when monitoring for pH, oil and grease and E. coli. Samples must be collected from same storm event.

- ii. Permit registrants may use a single grab sample to satisfy multiple pollutant parameter monitoring requirements (e.g., required to monitor for zinc as benchmark and impairment pollutant).
- b. Representative Sample - Samples must be representative of the discharge. Unless approved in writing by DEQ or Agent, all samples must be taken at monitoring points specified in the SWPCP before the stormwater joins or is diluted by stormwater from a different drainage area of the facility or areas outside the facility; wastewater, or any other wastestream, body of water or substance unless:
 - i. Otherwise approved in writing by DEQ or Agent; or
 - ii. On-site stormwater flows are combined to utilize a common treatment facility (for example, filter or settling pond). In this case, monitor the discharge from the treatment facility.
- c. Multiple Point Source Discharges - Each stormwater outfall must be monitored unless:
 - i. Outfall serves an area with no exposure of stormwater to industrial activities; or
 - ii. Outfall has effluent that is substantially similar to the effluent(s) of a monitored outfall and the same BMPs are implemented and maintained at the similar outfalls or drainage areas that lead to the outfalls. Substantially similar effluent(s) are discharges from drainage areas serving comparable activities where the discharges are expected to be similar in composition. The determination of substantial similarity or effluent(s) must be based on past monitoring or an analysis of industrial activities and site characteristics. The data or analysis supporting that the outfalls are representative must be included in the SWPCP. This provision does not apply to outfall(s) covered by a numeric effluent limit.
- d. Timing - Monitor the discharge during the first 12 hours of the discharge event, which is a measurable storm event resulting in an actual discharge from a site. If it is not practicable to collect the sample within this period, collect the sample as soon as practicable and provide documentation with the Discharge Monitoring Report form why it was not practicable to take samples within the period. Permit registrant is not required to sample outside of regular business hours or during unsafe conditions. Regular business hours are from 8 am to 5 pm on week days, unless the permit registrant specifies different hours in the SWPCP.
- e. Monitoring Frequency - Permit registrants must monitor their stormwater discharge according to the frequency described in Table 4 below unless a monitoring variance or waiver is granted by DEQ or Agent.
 - i. Monitoring year is from July 1st to June 30th. The stormwater samples must be collected at least 14 days apart.
 - ii. Permit registrant may collect more samples than the minimum frequency described below, but must report this additional data in the Discharge Monitoring Report form. These additional samples must be included to establish a monitoring waiver in Schedule B.4 or to conduct the geometric mean evaluation in Schedule A.12 of the permit.
 - iii. Exceedance of Numeric Effluent Limit in Schedule A.2 of the permit - Conduct follow-up monitoring of any pollutant that exceeds the numeric effluent limit(s) within 30 days (or during the next measurable storm event should none occur within 30 days) of receiving the monitoring results. If the follow-up monitoring exceeds the numeric effluent limit, the permit registrant must monitor the discharge four times per year until compliance with the numeric effluent limit.

Table 4: Monitoring Frequency

Pollutant Category	Minimum Frequency
Benchmarks in Schedule A.9, and any applicable sector specific benchmarks in Schedule E	Four times per Year Two samples on or before Dec. 31 and two samples on or after Jan. 1.
Impairment Pollutants, if applicable	Two times per Year One sample on or before Dec. 31 and one sample on or after Jan. 1.
Numeric Effluent Limits Guidelines, if applicable	One time per Year, unless exceedance occurs
Additional Pollutants:	
Mercury and PCBs for facilities with SIC 5093	Four times over the first three years of permit coverage Two samples on or before Dec. 31 and two samples on or after Jan.1.
Mercury for facilities with SIC 5015	Four times over the first three years of permit coverage Two samples on or before Dec. 31 and two samples on or after Jan. 1.
Cadmium, Chromium and Nickel	Eight times over the first three years of permit coverage Two samples on or before Dec. 31 and two samples on or after Jan. 1.

3. Monitoring Variance

- a. Permit registrants that obtain permit coverage after April 1st are granted a monitoring variance for any applicable impairment pollutants, additional pollutants or sector specific benchmarks or numeric effluent limitations for the remainder of the monitoring year, which ends on June 30th. For new facilities that were not registered under the previous permit or existing facilities that obtained a monitoring waiver for benchmark(s) in the previous permit, this variance also applies to the benchmarks in Schedule A.9.
- b. Permit registrants may request a monitoring variance for missed samples due to no discharge from the site if one of the following criteria is met:
 - i. State or federal authorities declared the year a drought year.
 - ii. Demonstrate that rainfall in the area where the permit registrant’s facility is located was 20% or more below the three-year average rainfall for that area.

iii. Demonstrate to DEQ or Agent's satisfaction that discharge did not occur due to use of on-site retention system or other stormwater treatment system, or infrequent storm events of sufficient magnitude to produce run-off during normal business hours and safe conditions. For each missed sample, report in the Discharge Monitoring Report form that no discharge occurred and include supporting data and analysis demonstrating why the monitoring did not occur.

4. Monitoring Waiver

a. Benchmark and Impairment Pollutant Monitoring

i. A monitoring waiver may be requested in the following circumstances:

1. If the geometric mean of four consecutive sampling results is below the statewide benchmarks in Schedule A.9 of the permit, sector specific benchmarks in Schedule E of the permit, or reference concentrations for impairment pollutants identified in the permit assignment letter, the permit registrant is not required to monitor for these pollutant(s) for the remainder of the permit term. The permit registrant must submit to DEQ or Agent the analytical laboratory results from the four sampling events.
 - (a) Results from sampling events cannot be averaged.
 - (b) Monitoring waivers may be allowed for individual parameters.
2. If the exceedance(s) is attributed solely to the presence of the pollutant(s) in natural background and is not associated with industrial activities at the site, DEQ or Agent will consider these samples as being below the benchmark(s) or reference concentrations for impairment pollutant(s). Permit registrant must submit a Natural Background Waiver report to DEQ that describes the investigation and analysis to demonstrate that the exceedances are due to natural background conditions and includes any data collected by the permit registrant or others (including literature studies) that describe the levels of natural background pollutants in the discharge.
3. If a facility is inactive and unstaffed and no industrial materials or activities are exposed to stormwater, the permit registrant is not required to conduct monitoring for the remainder of the permit term.
 - (a) Permit registrant must provide documentation with the DMR indicating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to precipitation, in accordance with the substantive requirements in 40 CFR 122.26(g)(4)(iii).
 - (b) The statement must be signed and certified in accordance with Schedule F of the permit.

ii. The permit registrant must submit to DEQ or Agent a request to exercise the monitoring waiver based on the conditions above and include the documentation to support the request. If DEQ or Agent does not comment within 30 calendar days, the monitoring waiver is deemed approved.

1. There is no reduction in monitoring allowed for:
 - (a) Visual observations, unless the site is inactive or unstaffed and there are no industrial materials or activities exposed to stormwater and permit registrant meets requirements in Schedule B.4.a.i.3 of the permit.
 - (b) Monitoring for federal numeric effluent limit guidelines.
2. Revocation of Monitoring Waiver
 - (a) The permit registrant must reinstate the monitoring of stormwater discharge if:
 - (i) Prior monitoring efforts used to establish the monitoring waiver were improper or sampling results were incorrect;
 - (ii) Changes to site conditions are likely to affect stormwater discharge characteristics;
 - (iii) Additional monitoring occurs and the sampling results exceed benchmark(s), or

- (iv) For inactive or unstaffed sites, the facility becomes active and/or staffed or industrial materials or activities become exposed to stormwater
- (b) DEQ or Agent will notify the permit registrant in writing if the monitoring waiver is revoked.

- 5. Additional Monitoring-** DEQ may notify permit registrants in writing of additional discharge monitoring requirements. Any such notice will state the reasons for the monitoring, locations and pollutants to be monitored, frequency and period of monitoring, sample types and reporting requirements.
- 6. A New Permit Registrant Discharging to Clackamas River, McKenzie River above Hayden Bridge (River Mile 15) or North Santiam River** (For potential or existing dischargers that did not have a permit prior to January 28, 1994, and existing dischargers that have a NPDES stormwater discharge permit but request an increased load limitation.)
- a. Not later than 180 calendar days after obtaining permit coverage, permit registrant must submit to DEQ a monitoring and water quality evaluation program. This program must be effective in evaluating the in-stream impacts of the discharge as required by OAR 340-041-0350.
 - b. Within 30 calendar days of DEQ approval, the permit registrant must implement the monitoring and water quality evaluation program.

INSPECTIONS

- 7. Permit registrant must meet the following inspection requirements:**
- a. Conduct inspections on a monthly basis when the facility is in operation of areas where industrial materials or activities are exposed to stormwater and areas where stormwater control measures, structures, catch basins, and treatment facilities are located.
 - i. Inspect the facility for the following:
 - 1. Industrial materials, residue, or trash that may have or could come into contact with stormwater;
 - 2. Leaks or spills from industrial equipment, drums, tanks, and other containers;
 - 3. Offsite tracking of industrial or waste materials, or sediment where vehicles enter or exit the site, excluding employee only entrances and exits;
 - 4. Tracking or blowing of raw, final, or waste materials;
 - 5. Evidence of, or the potential for, pollutants entering the drainage system;
 - 6. Evidence of pollutants discharging to receiving waters at all outfall(s), unless outfalls are representative as described in Schedule B.2.c.ii, and the condition of and around the outfall;
 - 7. Presence of floating solids (associated with industrial activity), foam, visible oil sheen, discoloration of the stormwater discharge at all outfall(s), unless outfalls are representative as described in Schedule B.2.c.ii. Conduct visual observations when stormwater discharge is occurring during regular business hours and safe conditions, and
 - 8. Properly functioning stormwater control measures.
 - ii. Exception for inactive or unstaffed sites as long as there are no industrial materials or activities exposed to stormwater. If circumstances change and industrial materials or activities become exposed to stormwater or the facility becomes active and/or staffed, this exception no longer applies and permit registrant must immediately resume monthly facility inspections.
 - iii. For exceptionally large facilities where monthly inspections of all areas identified above are infeasible, DEQ or Agent may approve in writing a modified inspection frequency.

- b. Document the following in an inspection report that is retained on-site and submitted to DEQ or Agent upon request:
 - i. The inspection date and time;
 - ii. Control measures needing cleaning, replacement, maintenance, reconditioning or repair;
 - iii. The condition of the drainage/conveyance system and need for maintenance;
 - iv. Previously unidentified sources of pollutants, and
 - v. Stormwater discharge observations and whether discharge contained floating solids (associated with industrial activity), foam, visible oil sheen, and was discolored. If these pollutants are present in the discharge, describe corrective action taken or will be taken to remedy the problem.

REPORTING AND RECORDKEEPING REQUIREMENTS

8. Reporting Monitoring Data

- a. The permit registrant must submit a DEQ-approved Discharge Monitoring Report (DMR) form to DEQ or Agent by July 31st of each year. Identify in the DMR the sampling results for the previous monitoring year and include the laboratory results from the testing laboratory.
- b. The permit registrant must report the minimum detection level and analytical methods for the parameters analyzed. Non-detections must be reported as "ND" with the detection level in mg/L parentheses, e.g., ND (0.005 mg/L). In calculating the geometric mean, one-half of the detection level must be used for non-detections.

9. Exceedance Report for Numeric Effluent Limits

If follow-up monitoring pursuant to Schedule B.2.e.iii of the permit exceeds a numeric effluent limit, permit registrant must submit an Exceedance Report to DEQ or Agent no later than 30 calendar days after receiving the lab results. The report must include the monitoring data from this monitoring event and the preceding monitoring event(s) and an explanation of the situation; what the permit registrant has done to correct the violation or intends to do if the corrective actions are not complete.

10. Record Keeping Procedures- Permit registrant must record and maintain at the facility the following information. All records must be retained by the permit registrant for at least three (3) years and made available to DEQ, Agent or local municipality upon request.

- a. A copy of the SWPCP and any revisions, corrective actions reports, and monthly inspection reports.
- b. Inspection, maintenance, repair and education activities.
- c. Spills or leaks of significant materials (See Schedule D.3, Definitions) that impacted or had the potential to impact stormwater or surface waters. Include the corrective actions to clean up the spill or leak as well as measures to prevent future problems of the same nature.

SCHEDULE D SPECIAL CONDITIONS

1. **Releases in Excess of Reportable Quantities.** This permit does not relieve the permit registrant of the reporting requirements of 40 CFR §117 Determination of Reportable Quantities for Hazardous Substances and 40 CFR §302 Designation, Reportable Quantities, and Notification.
2. **Availability of SWPCP and Monitoring Data.** The Stormwater Pollution Control Plan (SWPCP) or stormwater monitoring data must be made available to government agencies responsible for stormwater management in the permit registrant's area.
3. **Definitions**
 - a. Capital Improvements means the following improvements that require capital expenditures:
 - i. Treatment best management practices including but not limited to settling basins, oil/water separation equipment, grassy swales, detention/retention basins, and media filtration devices.
 - ii. Manufacturing modifications that incur capital expenditures, including process changes for reduction of pollutants or wastes at the source.
 - iii. Concrete pads, dikes and conveyance or pumping systems utilized for collection and transfer of stormwater to treatment systems.
 - iv. Roofs and appropriate covers for manufacturing areas.
 - v. Volume reduction measures, including low impact development control measures.
 - b. Best Management Practices (BMPs) – schedules of activities, practices (and prohibitions of practices), structures, vegetation, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the state. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. See 40 CFR 122.2.
 - c. Co-located Industrial Activities means any industrial activities, excluding the primary industrial activity(ies), located on-site that are defined by the stormwater regulations at 122.26(b)(14)(i - ix, xi) and OAR 340-045-0033(5), and identified in *Table 1: Sources Covered* on page 3 of the permit. An activity at a facility is not considered co-located if the activity, when considered separately, does not meet the description of a category of industrial activity covered by the stormwater regulations or identified in Table 1 of the permit.
 - d. Control Measure means any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the state.
 - e. Existing Discharger means an operator applying for coverage under this permit for discharges authorized previously under an NPDES general or individual permit.
 - f. Impaired Waters means those waters identified by a State or EPA pursuant to Section 303(d) of the Clean Water Act as not meeting applicable State water quality standards for one or more pollutants. This may include both waters with approved TMDLs, and those for which a TMDL has not yet been approved.
 - g. Hazardous Substances as defined in 40 CFR §302 Designation, Reportable Quantities, and Notification.
 - h. High Quality Waters means those waters that meet or exceed levels that are necessary to support the propagation of fish, shellfish, and wildlife; recreation in and on the water; and other designated beneficial uses for a given pollutant. Waters identified on the 303(d) list as not meeting applicable state water quality standards for a given pollutant are not high quality waters.
 - i. Industrial Activity means the categories of industrial activities included in the definition of “stormwater discharges associated with industrial activity” as defined in 40 CFR 122.26(b)(14)(i)-(ix) and (xi).
 - j. Industrial Stormwater means stormwater runoff from industrial activity.

- k. Material Handling Activities include the storage, loading and unloading, transportation or conveyance of raw material, intermediate product, finished product, by-product or waste product.
- l. Minimize means reduce or eliminate, or both, to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practice.
- m. New Discharger means a facility from which there is a discharge, that did not commence the discharge at a particular site prior to August 13, 1979, that is not a new source, and that has never received a finally effective NPDES permit for discharges at that site. See 40 CFR 122.2.
- n. New Source means any building, structure, facility, or installation from which there is or may be a “discharge of pollutants,” the construction of that commenced: after promulgation of standards of performance under section 306 of the CWA that are applicable to such source, or after proposal of standards of performance in accordance with section 306 of the CWA that are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal. See 40 CFR 122.2.
- o. Outstanding Resource Waters means those waters designated by the commission where existing high quality waters constitute an outstanding state or national resource based on their extraordinary water quality or ecological values or where special water quality protection is needed to maintain critical habitat areas.
- p. No exposure means all industrial materials or activities are protected by a storm-resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. See 40 CFR 122.26(g).
- q. Natural background pollutants include substances that are naturally occurring in soils or groundwater. Natural background pollutants do not include legacy pollutants from earlier activity on the site, or pollutants in run-on from neighboring sources that are not naturally occurring.
- r. Operator means any entity with a stormwater discharge associated with industrial activity that meets either of the following two criteria:
 - i. The entity has operational control over industrial activities, including the ability to modify those activities; or
 - ii. The entity has day-to-day operational control of activities at a facility necessary to ensure compliance with the permit (e.g., the entity is authorized to direct workers at a facility to carry out activities required by the permit).
- s. Point Source Discharge means a discharge from any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, or conduit.
- t. Primary industrial activity means any activities performed on-site that are (1) identified by the facility’s primary SIC code; or (2) included in the narrative descriptions of 122.26(b)(14)(i), (iv), (v), or (vii), and (ix). Narrative descriptions in 40 CFR 122.26(b)(14) identified above include: (i) activities subject to stormwater effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards; (iv) hazardous waste treatment storage, or disposal facilities including those that are operating under interim status or a permit under subtitle C of the Resource Conservation and Recovery Act (RCRA); (v) landfills, land application sites and open dumps that receive or have received industrial wastes; (vii) steam electric power generating facilities; and (ix) sewage treatment works with a design flow of 1.0 mgd or more.
- u. Significant Materials includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical that a facility is required to report pursuant to section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ash, slag, and sludge that have the potential to be released with stormwater discharges.
- v. Stormwater Associated With Industrial Activity includes, but is not limited to, stormwater discharges from the following:
 - i. Industrial plant yards;

- ii. Immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility;
- iii. Material handling sites (Material handling activities include the storage, loading and unloading, transportation or conveyance of raw material, intermediate product, finished product, by-product or waste product.);
- iv. Refuse sites;
- v. Sites used for the application or disposal of process waste waters (as defined in 40 CFR § 401);
- vi. Sites used for storage or maintenance of material handling equipment;
- vii. Sites used for residual treatment, storage, or disposal; shipping and receiving areas;
- viii. Manufacturing buildings;
- ix. Storage areas (including tank farms) for raw materials, and intermediate and finished products;
- x. Areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater. Significant materials includes, but are not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical that a facility is required to report pursuant to section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ash, slag, and sludge that have the potential to be released with stormwater discharges; and
- xi. Stormwater run-on that commingles with stormwater discharges associated with industrial activity at the facility.
- w. Stormwater Conveyance means a sewer, ditch, or swale that is designed to carry stormwater; a stormwater conveyance may also be referred to as a storm drain or storm sewer.
- x. Total Maximum Daily Load (TMDL) is the sum of the individual Waste Load Allocations (WLAs) for point sources and Load Allocations (LAs) for nonpoint sources and background. See OAR 340-041-0002(65) and OAR 340-042-0030(15).
- y. Treatment measures mean Best Management Practices that are intended to remove pollutants from stormwater. These measures include, but are not limited to: settling basins, oil/water separation equipment, detention/retention basins, media filtration devices, electrocoagulation, constructed wetlands and bioswales.
- z. Wasteload Allocation (WLA) means the portion of receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality-based effluent limitation. See OAR 340-041-0002(67).

4. **Local Public Agencies Acting as DEQ's Agent**

DEQ has authorized certain local governments and special districts to act as its Agent in implementing portions of this permit. The Agent may be authorized to conduct the following activities, including but not limited to: application and SWPCP review, inspections, monitoring data review, stormwater and wastewater monitoring, and verification and approval of no-exposure certifications. Where DEQ has entered into such an agreement, DEQ or its Agent will notify the permit registrant of where to submit no-exposure certifications, and other notifications or correspondence associated with this permit.

**SCHEDULE E
 SECTOR SPECIFIC REQUIREMENTS**

1. Sector Specific Requirements

Permit registrants must meet the sector-specific requirements in Schedule E of the permit associated with their primary industrial activity and any co-located industrial activities, as defined in Schedule D of the permit. The sector-specific requirements apply to the areas of the facility where the sector-specific activities occur. Facilities may be subject to more than one sector/subsector requirement.

2. These sector-specific requirements in Schedule E are in addition to the requirements in Schedule A and B of the permit.
3. If there is a conflict with requirements in the “Sources that are Required to Obtain Coverage under the Permit” section or the “Permit Coverage and Exclusion from Coverage” section of the permit, the requirements in Schedule E will not apply.
4. Table E-1 below identifies the sectors/subsectors that are required to meet the sector specific requirements in Schedule E of the permit.

Table E-1. Sectors of Industrial Activity with Sector Specific Requirements

SIC Code or Activity Code	Activity Represented
SECTOR A: TIMBER PRODUCTS	
2421	General Sawmills and Planing Mills
2411	Log Storage and Handling
2426	Hardwood Dimension and Flooring Mills
2429	Special Product Sawmills, Not Elsewhere Classified
2431-2439 (except 2434)	Millwork, Veneer, Plywood, and Structural Wood
2448	Wood Pallets and Skids
2449	Wood Containers, Not Elsewhere Classified
2451, 2452	Wood Buildings and Mobile Homes
2493	Reconstituted Wood Products
2499	Wood Products, Not Elsewhere Classified
2441	Nailed and Lock Corner Wood Boxes and Shook
SECTOR B: PAPER AND ALLIED PRODUCTS	
2631	Paperboard Mills
2611	Pulp Mills
2621	Paper Mills
2652-2657	Paperboard Containers and Boxes
2671-2679	Converted Paper and Paperboard Products, Except Containers and Boxes

Table E-1. Sectors of Industrial Activity with Sector Specific Requirements

SIC Code or Activity Code	Activity Represented
SECTOR C: CHEMICALS AND ALLIED PRODUCTS	
2873-2879	Agricultural Chemicals
2812-2819	Industrial Inorganic Chemicals
2841-2844	Soaps, Detergents, and Cleaning Preparations; Perfumes, Cosmetics, and Other Toilet Preparations
2821-2824	Plastics Materials and Synthetic Resins, Synthetic Rubber, Cellulosic and Other Manmade Fibers Except Glass
2833-2836	Medicinal Chemicals and Botanical Products; Pharmaceutical Preparations; in vitro and in vivo Diagnostic Substances; and Biological Products, Except Diagnostic Substances
2851	Paints, Varnishes, Lacquers, Enamels, and Allied Products
2861-2869	Industrial Organic Chemicals
2891-2899	Miscellaneous Chemical Products
3952 (limited to list of inks and paints)	Inks and Paints, Including China Painting Enamels, India Ink, Drawing Ink, Platinum Paints for Burnt Wood or Leather Work, Paints for China Painting, Artist's Paints and Artist's Watercolors
2911	Petroleum Refining
SECTOR D: ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS	
2951, 2952	Asphalt Paving and Roofing Materials
2992, 2999	Miscellaneous Products of Petroleum and Coal
SECTOR E: GLASS, CLAY, CEMENT, CONCRETE, AND GYPSUM PRODUCTS (some 1200-A)	
3251-3259	Structural Clay Products
3261-3269	Pottery and Related Products
3271-3275	Concrete, Gypsum, and Plaster Products
3211	Flat Glass
3221, 3229	Glass and Glassware, Pressed or Blown
3231	Glass Products Made of Purchased Glass
3241	Hydraulic Cement
3281	Cut Stone and Stone Products
3291-3299	Abrasive, Asbestos, and Miscellaneous Nonmetallic Mineral Products
SECTOR F: PRIMARY METALS	
3312-3317	Steel Works, Blast Furnaces, and Rolling and Finishing Mills
3321-3325	Iron and Steel Foundries
3351-3357	Rolling, Drawing, and Extruding of Nonferrous Metals
3363-3369	Nonferrous Foundries (Castings)
3331-3339	Primary Smelting and Refining of Nonferrous Metals

Table E-1. Sectors of Industrial Activity with Sector Specific Requirements

SIC Code or Activity Code	Activity Represented
3341	Secondary Smelting and Refining of Nonferrous Metals
3398, 3399	Miscellaneous Primary Metal Products
SECTOR G: METAL MINING (ORE MINING AND DRESSING)	
1021	Copper Ore and Mining Dressing Facilities
1011	Iron Ores
1021	Copper Ores
1031	Lead and Zinc Ores
1041, 1044	Gold and Silver Ores
1061	Ferroalloy Ores, Except Vanadium
1081	Metal Mining Services
1094, 1099	Miscellaneous Metal Ores
SECTOR H: COAL MINES AND COAL MINING-RELATED FACILITIES	
1221-1241	Coal Mines and Coal Mining-Related Facilities
SECTOR I: OIL AND GAS EXTRACTION AND REFINING	
1311	Crude Petroleum and Natural Gas
1321	Natural Gas Liquids
1381-1389	Oil and Gas Field Services
SECTOR J: MINERAL MINING AND DRESSING- Discharges Covered by 1200-A General Permit	
SECTOR K: HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL FACILITIES	
HZ	Hazardous Waste Treatment, Storage, or Disposal Facilities
SECTOR L: LANDFILLS, LAND APPLICATION SITES, AND OPEN DUMPS	
LF	All Landfill, Land Application Sites and Open Dumps
LF	All Landfill, Land Application Sites and Open Dumps, except Municipal Solid Waste Landfill (MSWLF) Areas Closed in Accordance with 40 CFR 258.60
SECTOR M: AUTOMOBILE SALVAGE YARDS	
5015	Automobile Salvage Yards
SECTOR N: SCRAP RECYCLING FACILITIES	
5093	Scrap Recycling and Waste Recycling Facilities except Source-Separated Recycling
5093	Source-separated Recycling Facility
SECTOR O: STEAM ELECTRIC GENERATING FACILITIES	
SE	Steam Electric Generating Facilities, including coal handling sites

Table E-1. Sectors of Industrial Activity with Sector Specific Requirements

SIC Code or Activity Code	Activity Represented
SECTOR P: LAND TRANSPORTATION AND WAREHOUSING	
4011, 4013	Railroad Transportation
4111-4173	Local and Highway Passenger Transportation
4212-4231	Motor Freight Transportation and Warehousing
4311	United States Postal Service
5171	Petroleum Bulk Stations and Terminals
SECTOR Q: WATER TRANSPORTATION	
4412-4499	Water Transportation Facilities
SECTOR R: SHIP AND BOAT BUILDING AND REPAIRING YARDS	
3731, 3732	Ship and Boat Building or Repairing Yards
SECTOR S: AIR TRANSPORTATION FACILITIES	
4512-4581	Air Transportation Facilities
SECTOR T: TREATMENT WORKS	
TW	Treatment Works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 mgd or more, or required to have an approved pretreatment program under 40 CFR Part 403.
SECTOR U: FOOD AND KINDRED PRODUCTS	
2041-2048	Grain Mill Products
2074-2079	Fats and Oils Products
2011-2015	Meat Products
2021-2026	Dairy Products
2032-2038	Canned, Frozen, and Preserved Fruits, Vegetables, and Food Specialties
2051-2053	Bakery Products
2061-2068	Sugar and Confectionery Products
2082-2087	Beverages
2091-2099	Miscellaneous Food Preparations and Kindred Products
2111-2141	Tobacco Products

Table E-1. Sectors of Industrial Activity with Sector Specific Requirements

SIC Code or Activity Code	Activity Represented
SECTOR V: TEXTILE MILLS, APPAREL, AND OTHER FABRIC PRODUCT MANUFACTURING; LEATHER AND LEATHER PRODUCTS	
2211-2299	Textile Mill Products
2311-2399	Apparel and Other Finished Products Made from Fabrics and Similar Materials
3131-3199	Leather and Leather Products (note: see Sector Z1 for Leather Tanning and Finishing)
SECTOR X: PRINTING AND PUBLISHING	
2711-2796	Printing, Publishing, and Allied Industries
SECTOR Y: RUBBER, MISCELLANEOUS PLASTIC PRODUCTS, AND MISCELLANEOUS MANUFACTURING INDUSTRIES	
3011	Tires and Inner Tubes
3021	Rubber and Plastics Footwear
3052, 3053	Gaskets, Packing and Sealing Devices, and Rubber and Plastic Hoses and Belting
3061, 3069	Fabricated Rubber Products, Not Elsewhere Classified
3081-3089	Miscellaneous Plastics Products
3931	Musical Instruments
3942-3949	Dolls, Toys, Games, and Sporting and Athletic Goods
3951-3955 (except 3952 – see Sector C)	Pens, Pencils, and Other Artists' Materials
3961, 3965	Costume Jewelry, Costume Novelties, Buttons, and Miscellaneous Notions, Except Precious Metal
3991-3999	Miscellaneous Manufacturing Industries
SECTOR Z: LEATHER TANNING AND FINISHING	
3111	Leather Tanning and Finishing
SECTOR AA: FABRICATED METAL PRODUCTS	
3411-3499 (except 3479)	Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services.
3911-3915	Jewelry, Silverware, and Plated Ware
3479	Fabricated Metal Coating and Engraving

Subpart A – Sector A – Timber Products.

E.A.1 Additional Technology-Based Effluent Limits.

E.A.1.1 Good Housekeeping. In areas where storage, loading and unloading, and material handling occur, perform good housekeeping to limit the discharge of wood debris, minimize the leachate generated from decaying wood materials, and minimize the generation of dust.

E.A.2 Additional SWPCP Requirements.

E.A.2.1 Drainage Area Site Map. Document in your SWPCP where any of the following may be exposed to precipitation or surface runoff: processing areas, treatment chemical storage areas, treated wood and residue storage areas, wet decking areas, dry decking areas, untreated wood and residue storage areas, and treatment equipment storage areas.

E.A.2.2 Inventory of Exposed Materials. Where such information exists, if your facility has used chlorophenolic, creosote, or chromium-copper-arsenic formulations for wood surface protection or preserving, document in your SWPCP the following: areas where contaminated soils, treatment equipment, and stored materials still remain and the management practices employed to minimize the contact of these materials with stormwater runoff.

E.A.2.3 Description of Stormwater Management Controls. Document measures implemented to address the following activities and sources: log, lumber, and wood product storage areas; residue storage areas; loading and unloading areas; material handling areas; chemical storage areas; and equipment and vehicle maintenance, storage, and repair areas. If your facility performs wood surface protection and preservation activities, address the specific control measures, including any BMPs, for these activities.

E.A.3 Sector-Specific Benchmarks

Table E.A-1 identifies benchmarks that apply to the specific subsectors of Sector A. These benchmarks apply to both your primary industrial activity and any co-located industrial activities, which describe your site activities.

Table E.A-1

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
General Sawmills and Planing Mills (SIC 2421)	Chemical Oxygen Demand (COD)	120.0 mg/L
Hardwood Dimension and Flooring Mills; Special Products Sawmills, not elsewhere classified; Millwork, Veneer, Plywood, and Structural Wood; Wood Pallets and Skids; Wood Containers, not elsewhere classified; Wood Buildings and Mobile Homes; Reconstituted Wood Products; and Wood Products Facilities not elsewhere classified (SIC 2426, 2429, 2431-2439 (except 2434), 2441, 2448, 2449, 2451, 2452, 2493, and 2499)	Chemical Oxygen Demand (COD)	120.0 mg/L

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart B – Sector B – Paper and Allied Products.

E.B.1 Sector-Specific Benchmarks.

Table E.B-1 identifies benchmarks that apply to the specific subsectors of Sector B. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

Table E.B-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Paperboard Mills (SIC Code 2631)	Chemical Oxygen Demand (COD)	120 mg/L

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart C – Sector C – Chemical and Allied Products Manufacturing, and Refining.

E.C.1 Sector-Specific Benchmarks

Table E.C-1 identifies benchmarks that apply to the specific subsectors of Sector C. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

Table E.C-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Agricultural Chemicals (SIC 2873-2879)	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Total Iron	1.0 mg/L
	Phosphorus	2.0 mg/L
Industrial Inorganic Chemicals (SIC 2812-2819)	Total Aluminum	0.75 mg/ L
	Total Iron	1.0 mg/L
	Nitrate plus Nitrite Nitrogen	0.68 mg/L
Soaps, Detergents, Cosmetics, and Perfumes (SIC 2841-2844)	Nitrate plus Nitrite Nitrogen	0.68 mg/L

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart D – Sector D – Asphalt Paving and Roofing Materials and Lubricant Manufacturing.

E.D.1 Effluent Limitations Based on Effluent Limitations Guidelines

Table E.D-1 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table E.D-1¹

Industrial Activity	Parameter	Effluent Limit
Discharges from asphalt emulsion facilities.	Total Suspended Solids (TSS)	23.0 mg/L, daily maximum 15.0 mg/L, 30-day avg.
	pH	6.0 - 9.0 s.u.
	Oil and Grease	15.0 mg/L, daily maximum
		10 mg/L, 30-day avg.

¹Monitor annually.

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart E – Sector E – Glass, Clay, Cement, Concrete, and Gypsum Products.

E.E.1 Additional Technology-Based Effluent Limits.

E.E.1.1 Good Housekeeping Measures. With good housekeeping, prevent or minimize the discharge of spilled cement, aggregate (including sand or gravel), kiln dust, fly ash, settled dust, or other significant material in stormwater from paved portions of the site that are exposed to stormwater. Consider sweeping regularly or using other equivalent measures to minimize the presence of these materials. Indicate in your SWPCP the frequency of sweeping or equivalent measures. Determine the frequency based on the amount of industrial activity occurring in the area and the frequency of precipitation, but it must be performed at least once a week if cement, aggregate, kiln dust, fly ash, or settled dust are being handled or processed. You must also prevent the exposure of fine granular solids (cement, fly ash, kiln dust, etc.) to stormwater, where practicable, by storing these materials in enclosed silos, hoppers, or buildings, or under other covering.

E.E.2 Additional SWPCP Requirements.

E.E.2.1 Drainage Area Site Map. Document in the SWPCP the locations of the following, as applicable: bag house or other dust control device; recycle/sedimentation pond, clarifier, or other device used for the treatment of process wastewater; and the areas that drain to the treatment device.

E.E.3 Sector-Specific Benchmarks.

Table E.E-1 identifies benchmarks that apply to the specific subsectors of Sector E. These benchmarks apply to both your primary industrial activity and any co-located industrial activities, which describe your site activities.

Table E.E-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Cutoff Concentration
Clay Product Manufacturers (SIC 3251-3259, 3261-3269)	Total Aluminum	0.75 mg/L
Concrete and Gypsum Manufacturers (SIC 3271-3275)	Total Iron	1.0 mg/L

E.E.4 Effluent Limitations Based on Effluent Limitations Guidelines

Table E.E-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table E.E-2¹

Industrial Activity	Parameter	Effluent Limit
Discharges from material storage piles at cement manufacturing facilities	Total Suspended Solids (TSS)	50 mg/L, daily maximum
	pH	6.0 - 9.0 s.u.

¹Monitor annually.

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart F – Sector F – Primary Metal

E.F.1 Additional Technology-Based Effluent Limits

E.F.1.1 Good Housekeeping Measures. As part of your good housekeeping program, include a cleaning and maintenance program for all impervious areas of the facility where particulate matter, dust, or debris may accumulate, especially areas where material loading and unloading, storage, handling, and processing occur; and, where practicable, the paving of areas where vehicle traffic or material storage occur but where vegetative or other stabilization methods are not practicable (institute a sweeping program in these areas too). For unstabilized areas where sweeping is not practicable, consider using stormwater management devices such as sediment traps, vegetative buffer strips, filter fabric fence, sediment filtering boom, gravel outlet protection, or other equivalent measures that effectively trap or remove sediment.

E.F.2 Additional SWPCP Requirements.

E.F.2.1 Drainage Area Site Map. Identify in the SWPCP where any of the following activities may be exposed to precipitation or surface runoff: storage or disposal of wastes such as spent solvents and baths, sand, slag and dross; liquid storage tanks and drums; processing areas including pollution control equipment (e.g., baghouses); and storage areas of raw material such as coal, coke, scrap, sand, fluxes, refractories, or metal in any form. In addition, indicate where an accumulation of significant amounts of particulate matter could occur from such sources as furnace or oven emissions, losses from coal and coke handling operations, etc., and could result in a discharge of pollutants to waters of the United States.

E.F.2.2 Inventory of Exposed Material. Include in the inventory of materials handled at the site that potentially may be exposed to precipitation or runoff, areas where deposition of particulate matter from process air emissions or losses during material-handling activities are possible

E.F.3 Additional Inspection Requirements. As part of conducting your monthly inspections address all potential sources of pollutants, including (if applicable) air pollution control equipment (e.g., baghouses, electrostatic precipitators, scrubbers, and cyclones), for any signs of degradation (e.g., leaks, corrosion, or improper operation) that could limit their efficiency and lead to excessive emissions. Consider monitoring air flow at inlets and outlets (or use equivalent measures) to check for leaks (e.g., particulate deposition) or blockage in ducts. Also inspect all process and material handling equipment (e.g., conveyors, cranes, and vehicles) for leaks, drips, or the potential loss of material; and material storage areas (e.g., piles, bins, or hoppers for storing coke, coal, scrap, or slag, as well as chemicals stored in tanks and drums) for signs of material losses due to wind or stormwater runoff.

E.F.4 Sector-Specific Benchmarks.

Table E.F-1 identifies benchmarks that apply to the specific subsectors of Sector F. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

Table E.F-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Cutoff Concentration
Steel Works, Blast Furnaces, and Rolling and Finishing Mills (SIC 3312-3317)	Total Aluminum	0.75 mg/L
Iron and Steel Foundries (SIC 3321-3325)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart G – Sector G – Metal Mining.

E.G.1 Definitions.

The following definitions are not intended to supersede the definitions of active and inactive mining facilities established by 40 CFR 122.26(b)(14)(iii).

- E.G.1.1 Mining operation - Consists of the active and temporarily inactive phases, and the reclamation phase, but excludes the exploration and construction phases.
- E.G.1.2 Exploration phase - Entails exploration and land disturbance activities to determine the viability of a site. The exploration phase is not considered part of “mining operations.”
- E.G.1.3 Construction phase - Includes the building of site access roads and removal of overburden and waste rock to expose mineable minerals. The construction phase is not considered part of “mining operations.”
- E.G.1.4 Active phase - Activities including the extraction, removal or recovery of metal ore. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of “active mining area” found at 40 CFR 440.132(a). The active phase is considered part of “mining operations.”
- E.G.1.5 Reclamation phase - Activities undertaken, in compliance with applicable mined land reclamation requirements, following the cessation of the “active phase”, intended to return the land to an appropriate post-mining land use in order to meet applicable Federal and State reclamation requirements. The reclamation phase is considered part of "mining operations."
- E.G.1.6 Active metal mining facility - A place where work or other activity related to the extraction, removal, or recovery of metal ore is being conducted. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of “active mining area” found at 40 CFR 440.132(a).
- E.G.1.7 Inactive metal mining facility - A site or portion of a site where metal mining and/or milling occurred in the past but is not an active facility as defined above, and where the inactive portion is not covered by an active mining permit issued by the applicable State or Federal agency. An inactive metal mining facility has an identifiable owner / operator. Sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials and sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim are not considered either active or inactive mining facilities and do not require an NPDES industrial stormwater permit.
- E.G.1.8 Temporarily inactive metal mining facility - A site or portion of a site where metal mining and/or milling occurred in the past but currently are not being actively undertaken, and the facility is covered by an active mining permit issued by the applicable State or Federal agency.
- E.G.1.9 Final Stabilization - A site or portion of a site is “finally stabilized” when it has implemented all applicable Federal and State reclamation requirements.

E.G.2 Technology-Based Effluent Limits for Clearing, Grading, and Excavation Activities.

Clearing, grading, and excavation activities being conducted as part of the exploration and construction phase of mining activities are covered under this permit.

E.G.2.1 Management Practices for Clearing, Grading, and Excavation Activities.

E.G.2.1.1 Selecting and installing control measures. For all areas affected by clearing, grading, and excavation activities, you must select, design, install, and implement control measures that meet applicable effluent limits in Schedule A of the permit.

E.G.2.1.2 Good Housekeeping. Litter, debris, and chemicals must be prevented from becoming a pollutant source in stormwater discharges.

E.G.2.1.3 Retention and Detention of Stormwater Runoff. For drainage locations serving more than one acre, sediment basins and/or temporary sediment traps should be used. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries (and for side slope boundaries as necessary based on individual site conditions) of the development area unless a sediment basin providing storage for a calculated volume of runoff from a 2-year, 24-hour storm or 3,600 cubic feet of storage per acre drained is provided. You are required to remove sediment from sediment traps or sedimentation ponds when design capacity has been reduced by 50 percent. Due to high sediment discharges from some Sector G facilities, permittees may need to implement a combination of structural BMP approaches to sufficiently decrease discharge of sediment from their facilities.

E.G.2.2 Inspection of Clearing, Grading, and Excavation Activities.

E.G.2.2.1 Inspection Frequency. Inspections must be conducted either at least once every 7 calendar days, or at least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater. Inspection frequency may be reduced to at least once every month if the entire site is temporarily stabilized, if runoff is unlikely due to winter (e.g., site is covered with snow or ice) or frozen conditions, or construction is occurring during seasonal dry periods in arid areas and semi-arid areas.

E.G.2.2.2 Location of Inspections. Inspections must include all areas of the site disturbed by clearing, grading, and/or excavation activities and areas used for storage of materials that are exposed to precipitation. Sedimentation and erosion control measures must be observed to ensure proper operation. Discharge locations must be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to surface waters of the state, where accessible. Where discharge locations are inaccessible, nearby downstream locations must be inspected to the extent that such inspections are practicable. Locations where vehicles enter or exit the site must be inspected for evidence of significant off-site sediment tracking.

E.G.2.2.3 Inspection Reports. For each inspection required above, you must complete an inspection report. At a minimum, the inspection report must include the information required in Schedule B.7 of the permit.

E.G.2.3 Requirements for Cessation of Clearing, Grading, and Excavation Activities.

- E.G.2.3.1 Inspections and Maintenance. Inspections and maintenance of control measures, including BMPs, associated with clearing, grading, and excavation activities being conducted as part of the exploration and construction phase of a mining operation must continue until final stabilization has been achieved on all portions of the disturbed area, or until the commencement of the active mining phase for those areas that have been temporarily stabilized as a precursor to mining.
- E.G.2.3.2 Temporary Stabilization of Disturbed Areas. Stabilization measures should be initiated immediately in portions of the site where clearing, grading and/or excavation activities have temporarily ceased, but in no case more than 14 days after the clearing, grading and/or excavation activities in that portion of the site have temporarily ceased. In arid, semiarid, and drought-stricken areas, or in areas subject to snow or freezing conditions, where initiating perennial vegetative stabilization measures is not possible within 14 days after mining, exploration, and/or construction activity has temporarily ceased, temporary vegetative stabilization measures must be initiated as soon as practicable. Until temporary vegetative stabilization is achieved, interim measures such as erosion control blankets with an appropriate seed base and tackifiers must be employed. In areas of the site, where exploration and/or construction has permanently ceased prior to active mining, temporary stabilization measures must be implemented to minimize mobilization of sediment or other pollutants until such time as the active mining phase commences.
- E.G.2.3.3 Final Stabilization of Disturbed Areas. Stabilization measures should be initiated immediately in portions of the site where exploration and/or construction activities have permanently ceased, but in no case more than 14 days after the exploration and/or construction activity in that portion of the site has permanently ceased. In arid, semiarid, and drought-stricken areas, or in areas subject to snow or freezing conditions, where initiating perennial vegetative stabilization measures is not possible within 14 days after mining, exploration, and/or construction activity has permanently ceased, final vegetative stabilization measures must be initiated as soon as possible. Until final stabilization is achieved temporary stabilization measures, such as erosion control blankets with an appropriate seed base and tackifiers, must be used.

E.G.3 Additional Technology-Based Effluent Limits.

- E.G.3.1 Stormwater Controls. Apart from the control measures you implement to meet your effluent limits, consider implementing the following control measures at your site. The potential pollutants identified in Schedule E.G.4.3 shall determine the priority and appropriateness of the control measures selected.
- E.G.3.1.1 Stormwater Diversions: Consider diverting stormwater away from potential pollutant sources. Following are some options: interceptor or diversion controls (e.g., dikes, swales, curbs, or berms); pipe slope drains; subsurface drains; conveyance systems (e.g., channels or gutters, open-top box culverts, and waterbars; rolling dips and road sloping; roadway surface water deflector and culverts); or their equivalents.
- E.G.3.1.2 Capping: When capping is necessary to minimize pollutant discharges in stormwater, identify the source being capped and the material used to construct the cap.

E.G.3.1.3 Treatment: If treatment of stormwater (e.g., chemical or physical systems, oil and water separators, artificial wetlands) is necessary to protect water quality, describe the type and location of treatment used. Passive and/or active treatment of stormwater runoff is encouraged where practicable. Treated runoff may be discharged as a stormwater source regulated under this permit provided the discharge is not combined with discharges subject to effluent limitation guidelines for the Ore Mining and Dressing Point Source Category (40 CFR Part 440).

E.G.3.2 Certification of Discharge Testing. Test or evaluate all outfalls covered under this permit for the presence of specific mining-related non-stormwater discharges such as seeps or adit discharges, or discharges subject to effluent limitations guidelines (e.g., 40 CFR Part 440), such as mine drainage or process water. Alternatively (if applicable), you may keep a certification with your SWPCP consistent with Schedule E.G.4.5.

E.G.4 Additional SWPCP Requirements.

E.G.4.1 Nature of Industrial Activities. Briefly document in your SWPCP the mining and associated activities that can potentially affect the stormwater discharges covered by this permit, including a general description of the location of the site relative to major transportation routes and communities.

E.G.4.2 Site Map. Document in your SWPCP the locations of the following (as appropriate): mining or milling site boundaries; access and haul roads; outline of the drainage areas of each stormwater outfall within the facility with indications of the types of discharges from the drainage areas; location(s) of all permitted discharges covered under an individual NPDES permit, outdoor equipment storage, fueling, and maintenance areas; materials handling areas; outdoor manufacturing, outdoor storage, and material disposal areas; outdoor chemicals and explosives storage areas; overburden, materials, soils, or waste storage areas; location of mine drainage (where water leaves mine) or other process water; tailings piles and ponds (including proposed ones); heap leach pads; off-site points of discharge for mine drainage and process water; surface waters; boundary of tributary areas that are subject to effluent limitations guidelines; and location(s) of reclaimed areas.

E.G.4.3 Potential Pollutant Sources. For each area of the mine or mill site where stormwater discharges associated with industrial activities occur, identify the types of pollutants (e.g., heavy metals, sediment) likely to be present in significant amounts. Consider these factors: the mineralogy of the ore and waste rock (e.g., acid forming); toxicity and quantity of chemicals used, produced, or discharged; the likelihood of contact with stormwater; vegetation of site (if any); and history of significant leaks or spills of toxic or hazardous pollutants. Also include a summary of any existing ore or waste rock or overburden characterization data and test results for potential generation of acid rock. If any new data is acquired due to changes in ore type being mined, update your SWPCP with this information.

E.G.4.4 Documentation of Control Measures. Document all control measures that you implement consistent with Schedule E.G.3.1. If control measures are implemented or planned but are not listed in Schedule E.G.3.1 (e.g., substituting a less toxic chemical for a more toxic one), include descriptions of them in your SWPCP.

E.G.4.5 Certification of Permit Coverage for Commingled Non-Stormwater Discharges: If you are able, consistent with Schedule E.G.3.2 above, to certify that a particular discharge composed of commingled stormwater and non-stormwater is covered under a separate NPDES permit, and

that permit subjects the non-stormwater portion to effluent limitations prior to any commingling, retain such certification with your SWPCP. This certification must identify the non-stormwater discharges, the applicable NPDES permit(s), the effluent limitations placed on the non-stormwater discharge by the permit(s), and the points at which the limitations are applied.

E.G.5 Additional Inspection Requirements.

Except for areas of the site subject to clearing, grading, and/or excavation activities conducted as part of the exploration and construction phase, which are subject to Schedule E.G.2.2.1, inspect sites at least monthly unless adverse weather conditions make the site inaccessible. Sites which discharge to waters which are impaired for sediment or nitrogen must be inspected monthly.

E.G.6 Monitoring and Reporting Requirements.

E.G.6.1 Benchmark Monitoring for Active Copper Ore Mining and Dressing Facilities. Active copper ore mining and dressing facilities, must sample and analyze stormwater discharges for the pollutants listed in Table E.G-1.

Table E.G-1

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Active Copper Ore Mining and Dressing Facilities (SIC 1021)	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L

E.G.6.2 Benchmark Monitoring Requirements for Discharges From Waste Rock and Overburden Piles at Active Metal Mining Facilities. For discharges from waste rock and overburden piles, perform benchmark monitoring once in the first year for the parameters listed in Table E.G-2, and twice annually in all subsequent years of coverage under this permit for any parameters for which the benchmark has been exceeded. You are also required to conduct analytic monitoring for the parameters listed in Table E.G-3 in accordance with the requirements in Schedule E.G.4.3. DEQ may also notify you that you must perform additional monitoring to accurately characterize the quality and quantity of pollutants discharged from your waste rock and overburden piles.

Table E.G-2.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Cutoff Concentration
Iron Ores; Copper Ores; Lead and Zinc Ores; Gold and Silver Ores; Ferroalloy Ores, Except Vanadium; and Miscellaneous Metal Ores (SIC Codes 1011, 1021, 1031, 1041, 1044, 1061, 1081, 1094, 1099)	Turbidity	50 NTU
	Hardness (as CaCO ₃ ; calc. from Ca, Mg) ¹	no benchmark value
	Total Antimony	0.64 mg/L
	Total Arsenic	0.15 mg/ L

Table E.G-2.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Cutoff Concentration
Note: when analyzing hardness for a suite of metals, it is more cost effective to add analysis of calcium and magnesium, and have hardness calculated than to require hardness analysis separately.	Total Beryllium	0.13 mg/L
	Total Cadmium	0.001 mg/L
	Total Iron	1.0 mg/L
	Total Mercury	0.0014 mg/L
	Total Nickel	0.5 mg/L
	Total Selenium	0.005 mg/L
	Total Silver	0.0005 mg/L

E.G.6.3 Additional Analytic Monitoring Requirements for Discharges From Waste Rock and Overburden Piles at Active Metal Mining Facilities. In addition to the monitoring required in Schedule E.G.6.2 for discharges from waste rock and overburden piles, you must also conduct monitoring for additional parameters based on the type of ore you mine at your site. Where a parameter in Table E.G-3 is the same as a pollutant you are required to monitor for in Table E.G-2 (i.e., for all of the metals, you must use the corresponding benchmark in Table E.G-2 and you may use any monitoring results conducted for Schedule E.G.6.2 to satisfy the monitoring requirement for that parameter for Schedule E.G.6.3. For radium and uranium, which do not have corresponding benchmarks in Table E.G-2, there are no applicable benchmarks.)

Table E.G-3. Additional Monitoring Requirements for Discharges from Waste Rock and Overburden Piles

Supplemental Requirements			
Type of Ore Mined	Pollutants of Concern		
	Total Suspended Solids (TSS)	pH	Metals, Total
Tungsten Ore	X	X	Arsenic, Cadmium (H), Copper (H), Lead (H), Zinc (H)
Nickel Ore	X	X	Arsenic, Cadmium (H), Copper (H), Lead (H), Zinc (H)
Aluminum Ore	X	X	Iron
Mercury Ore	X	X	Nickel (H)
Iron Ore	X	X	Iron (Dissolved)
Platinum Ore			Cadmium (H), Copper (H), Mercury, Lead (H), Zinc (H)
Titanium Ore	X	X	Iron, Nickel (H), Zinc (H)
Vanadium Ore	X	X	Arsenic, Cadmium (H), Copper (H), Lead (H), Zinc (H)
Molybdenum	X	X	Arsenic, Cadmium (H), Copper (H), Lead (H), Mercury, Zinc (H)
Uranium, Radium, and Vanadium Ore	X	X	Chemical Oxygen Demand, Arsenic, Radium (Dissolved and Total), Uranium, Zinc (H)

Note: An "X" indicated for TSS and/or pH means that you are required to monitor for those parameters. (H) indicates that hardness must also be measured when this pollutant is measured.

E.G.6.4 Inactive and Unstaffed Sites –As a Sector G facility, if you are seeking to exercise a monitoring or inspection waiver, you are conditionally exempt from the requirement to certify that “there are no industrial materials or activities exposed to stormwater” in Schedule B.4 of the permit. This exemption is conditioned on the following:

- If circumstances change and your facility becomes active and/or staffed, this exception no longer applies and you must immediately begin complying with the monitoring and inspection requirements; and
- DEQ retains the authority to revoke this exemption and/or the monitoring waiver where it is determined that the discharge causes, has a reasonable potential to cause, or contributes to an instream excursion above an applicable water quality standard, including designated uses.

Table E.G-4. Applicability of the Permit to Stormwater Runoff From Active Mining and Dressing Sites, Temporarily Inactive Sites, and Sites Undergoing Reclamation

Discharge/Source of Discharge	Note/Comment
Piles	
Waste rock/overburden	If composed entirely of stormwater and not combining with mine drainage. See note below.
Topsoil	--
Roads constructed of waste rock or spent ore	
Onsite haul roads	If composed entirely of stormwater and not combining with mine drainage. See note below.
Offsite haul and access roads	--
Roads not constructed of waste rock or spent ore	
Onsite haul roads	Except if mine drainage is used for dust control
Offsite haul and access roads	--
Milling/concentrating	
Runoff from tailings dams and dikes when constructed of waste rock/tailings	Except if process fluids are present and only if composed entirely of stormwater and not combining with mine drainage. See Note below.
Runoff from tailings dams/dikes when not constructed of waste rock and tailings	Except if process fluids are present
Concentration building	If stormwater only and no contact with piles
Mill site	If stormwater only and no contact with piles
Ancillary areas	
Office and administrative building and housing	If mixed with stormwater from the industrial area
Chemical storage area	--
Docking facility	Except if excessive contact with waste product that would otherwise constitute mine drainage
Explosive storage	--
Fuel storage (oil tanks/coal piles)	--
Vehicle and equipment maintenance area/building	--
Parking areas	But coverage unnecessary if only employee and visitor-type parking
Power plant	
Truck wash area	Except when excessive contact with waste product that would otherwise constitute mine drainage

Table E.G-4. Applicability of the Permit to Stormwater Runoff From Active Mining and Dressing Sites, Temporarily Inactive Sites, and Sites Undergoing Reclamation

Reclamation-related areas	
Any disturbed area (unreclaimed)	Only if not in active mining area
Reclaimed areas released from reclamation requirements prior to Dec. 17, 1990	--
Partially/inadequately reclaimed areas or areas not released from reclamation requirements	--

Note: Stormwater runoff from these sources are subject to the NPDES program for stormwater unless mixed with discharges subject to 40 CFR Part 440 that are regulated by another permit prior to mixing. Non-stormwater discharges from these sources are subject to NPDES permitting and may be subject to the effluent limitation guidelines under 40 CFR Part 440. Discharges from overburden/waste rock and overburden/waste rock-related areas are not subject to 40 CFR Part 440 unless: (1) it drains naturally (or is intentionally diverted) to a point source; and (2) combines with "mine drainage" that is otherwise regulated under the Part 440 regulations. For such sources, coverage under this permit would be available if the discharge composed entirely of stormwater does not combine with other sources of mine drainage that are not subject to 40 CFR Part 440, as well as meeting other eligibility criteria contained in the permit.

E.G.7. Termination of Permit Coverage

- E.G.7.1 Termination of Permit Coverage for Sites Reclaimed After December 17, 1990. A site or a portion of a site that has been released from applicable state or federal reclamation requirements after December 17, 1990, is no longer required to maintain coverage under this permit. If the site or portion of a site reclaimed after December 17, 1990, was not subject to reclamation requirements, the site or portion of the site is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed as defined in Schedule E.G.7.2.

- E.G.7.2 Termination of Permit Coverage for Sites Reclaimed Before December 17, 1990. A site or portion of a site that was released from applicable state or federal reclamation requirements before December 17, 1990, or that was otherwise reclaimed before December 17, 1990, is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed. A site or portion of a site is considered to have been reclaimed if: (1) stormwater runoff that comes into contact with raw materials, intermediate byproducts, finished products, and waste products does not have the potential to cause or contribute to violations of state water quality standards, (2) soil disturbing activities related to mining at the sites or portion of the site have been completed, (3) the site or portion of the site has been stabilized to minimize soil erosion, and (4) as appropriate depending on location, size, and the potential to contribute pollutants to stormwater discharges, the site or portion of the site has been revegetated, will be amenable to natural revegetation, or will be left in a condition consistent with the post-mining land use.

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart H – Sector H – Coal Mines and Coal Mining-Related Facilities.

E.H.1 Definitions

The following definitions are not intended to supersede the definitions of active and inactive mining facilities established by 40 CFR 122.26(b)(14)(iii).

- E.H.1.1 Mining operation - Consists of the active and temporarily inactive phases, and the reclamation phase, but excludes the exploration and construction phases.
- E.H.1.2 Exploration phase - Entails exploration and land disturbance activities to determine the financial viability of a site. The exploration phase is not considered part of “mining operations.”
- E.H.1.3 Construction phase - Includes the building of site access roads and removal of overburden and waste rock to expose mineable coal. The construction phase is not considered part of “mining operations.”
- E.H.1.4 Active phase - Activities including the extraction, removal or recovery of coal. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of “active mining area” found at 40 CFR 434.11(b). The active phase is considered part of “mining operations.”
- E.H.1.5 Reclamation phase - Activities undertaken, in compliance with applicable mined land reclamation requirements, following the cessation of the “active phase”, intended to return the land to an appropriate post-mining land use. The reclamation phase is considered part of "mining operations."
- E.H.1.6 Active coal mining facility - A place where work or other activity related to the extraction, removal, or recovery of coal is being conducted. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of “active mining area” found at 40 CFR 434.11(b).
- E.H.1.7 Inactive coal mining facility - A site or portion of a site where coal mining and/or milling occurred in the past but is not an active facility as defined above, and where the inactive portion is not covered by an active mining permit issued by the applicable State or Federal agency. An inactive coal mining facility has an identifiable owner / operator. Sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials and sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim are not considered either active or inactive mining facilities and do not require an NPDES industrial stormwater permit.
- E.H.1.8 Temporarily inactive coal mining facility - A site or portion of a site where coal mining and/or milling occurred in the past but currently are not being actively undertaken, and the facility is covered by an active mining permit issued by the applicable State or Federal agency.
- E.H.1.9 Final Stabilization - A site or portion of a site is “finally stabilized” when it has implemented all applicable Federal and State reclamation requirements.

E.H.2 Technology-Based Effluent Limits for Clearing, Grading, and Excavation Activities.

Clearing, grading, and excavation activities being conducted as part of the exploration and construction phase of mining activities are covered under this permit.

E.H.2.1 Management Practices for Clearing, Grading, and Excavation Activities.

E.H.2.1.1 Selecting and installing control measures. For all areas affected by clearing, grading, and excavation activities, you must select, design, install, and implement control measures that meet applicable Part 2 effluent limits.

E.H.2.1.2 Good Housekeeping. Litter, debris, and chemicals must be prevented from becoming a pollutant source in stormwater discharges.

E.H.2.1.3 Retention and Detention of Stormwater Runoff. For drainage locations serving more than one acre, sediment basins and/or temporary sediment traps should be used. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries (and side slope boundaries as necessary based on individual site conditions) of the development area unless a sediment basin providing storage for a calculated volume of runoff from a 2-year, 24-hour storm or 3,600 cubic feet of storage per acre drained is provided. You are required to remove sediment from sediment traps or sedimentation ponds when design capacity has been reduced by 50 percent. Due to high sediment discharges from some Sector H facilities, permittees may need to implement a combination of structural BMP approaches to sufficiently decrease discharge of sediment from their facilities.

E.H.2.2 Inspection of Clearing, Grading, and Excavation Activities.

E.H.2.2.1 Inspection Frequency. Inspections must be conducted either at least once every 7 calendar days, or at least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater. Inspection frequency may be reduced to at least once every month if the entire site is temporarily stabilized, if runoff is unlikely due to winter (e.g., site is covered with snow or ice) or frozen conditions, or construction is occurring during seasonal dry periods in arid areas and semi-arid areas.

E.H.2.2.2 Location of Inspections. Inspections must include all areas of the site disturbed by clearing, grading, and/or excavation activities and areas used for storage of materials that are exposed to precipitation. Sedimentation and erosion control measures must be observed to ensure proper operation. Discharge locations must be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to waters of the United States, where accessible. Where discharge locations are inaccessible, nearby downstream locations must be inspected to the extent that such inspections are practicable. Locations where vehicles enter or exit the site must be inspected for evidence of significant off-site sediment tracking.

E.H.2.3 Requirements for Cessation of Clearing, Grading, and Excavation Activities.

E.H.2.3.1 Inspections and Maintenance. Inspections and maintenance of control measures, including BMPs, associated with clearing, grading, and/or excavation activities being conducted as part of the exploration and construction phase of a mining operation

must continue until final stabilization has been achieved on all portions of the disturbed area.

- E.H.2.3.2 Temporary Stabilization of Disturbed Areas. Stabilization measures should be initiated immediately in portions of the site where clearing, grading and/or excavation activities have temporarily ceased, but in no case more than 14 days after the clearing, grading and/or excavation activities in that portion of the site have temporarily ceased. In arid, semiarid, and drought-stricken areas, or in areas subject to snow or freezing conditions, where initiating perennial vegetative stabilization measures is not possible within 14 days after mining, exploration, and/or construction activity has temporarily ceased, temporary vegetative stabilization measures must be initiated as soon as practicable. Until temporary vegetative stabilization is achieved, interim measures such as erosion control blankets with an appropriate seed base and tackifiers must be employed. In areas of the site, where exploration and/or construction has permanently ceased prior to active mining, temporary stabilization measures must be implemented to minimize mobilization of sediment or other pollutants until such time as the active mining phase commences.
- E.H.2.3.3 Final Stabilization of Disturbed Areas. Stabilization measures should be initiated immediately in portions of the site where exploration and/or construction activities have permanently ceased, but in no case more than 14 days after the exploration and/or construction activity in that portion of the site has permanently ceased. In arid, semiarid, and drought-stricken areas, or in areas subject to snow or freezing conditions, or in areas subject to snow or freezing conditions, where initiating perennial vegetative stabilization measures is not possible within 14 days after mining, exploration, and/or construction activity has permanently ceased, temporary vegetative stabilization measures must be initiated as soon as possible. Until final stabilization is achieved temporary stabilization measures, such as erosion control blankets with an appropriate seed base and tackifiers, must be used.

E.H.3 Additional Technology-Based Effluent Limits.

- E.H.3.1 Good Housekeeping Measures. As part of your good housekeeping program, consider using sweepers and covered storage, watering haul roads to minimize dust generation, and conserving vegetation (where possible) to minimize erosion.
- E.H.3.2 Preventive Maintenance. Perform inspections or other equivalent measures of storage tanks and pressure lines of fuels, lubricants, hydraulic fluid, and slurry to prevent leaks due to deterioration or faulty connections.

E.H.4 Additional SWPCP Requirements.

- E.H.4.1 Other Applicable Regulations. Most active coal mining-related areas (SIC Codes 1221-1241) are subject to sediment and erosion control regulations of the U.S. Office of Surface Mining (OSM) that enforces the Surface Mining Control and Reclamation Act (SMCRA). OSM has granted authority to most coal-producing states to implement SMCRA through State SMCRA regulations. All SMCRA requirements regarding control of stormwater-related pollutant discharges must be addressed and then documented with the SWPCP (directly or by reference).
- E.H.4.2 Site Map. Document in your SWPCP where any of the following may be exposed to precipitation or surface runoff: haul and access roads; railroad spurs, sliding, and internal

hauling lines; conveyor belts, chutes, and aerial tramways; equipment storage and maintenance yards; coal handling buildings and structures; and inactive mines and related areas; acidic spoil, refuse, or unreclaimed disturbed areas; and liquid storage tanks containing pollutants such as caustics, hydraulic fluids, and lubricants.

E.H.4.3 Potential Pollutant Sources. Document in your SWPCP the following sources and activities that have potential pollutants associated with them: truck traffic on haul roads and resulting generation of sediment subject to runoff and dust generation; fuel or other liquid storage; pressure lines containing slurry, hydraulic fluid, or other potential harmful liquids; and loading or temporary storage of acidic refuse or spoil.

E.H.5 Additional Inspection Requirements.

E.H.5.1 Inspections of Active Mining-Related Areas. Except for areas of the site subject to clearing, grading, and/or excavation activities conducted as part of the exploration and construction phase, which are subject to Schedule E.H.2.2.1, perform monthly inspections of active mining areas covered by this permit, corresponding with the inspections as performed by SMCRA inspectors, of all mining-related areas required by SMCRA. Also maintain the records of the SMCRA authority representative.

E.H.5.2 Sediment and Erosion Control. Meet SMCRA inspection requirements for sediment and erosion control measures for areas subject to SMCRA authority.

E.H.5.3 Site Inspections. Your inspection program must include inspections for pollutants entering the drainage system from activities located on or near coal mining-related areas. Among the areas to be inspected are haul and access roads; railroad spurs, sliding, and internal hauling lines; conveyor belts, chutes, and aerial tramways; equipment storage and maintenance yards; coal handling buildings and structures; and inactive mines and related areas.

E.H.6 Sector-Specific Benchmarks.

Table E.H-1 identifies benchmarks that apply to the specific subsectors of Sector H. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

Table E.H-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Coal Mines and Related Areas (SIC 1221-1241)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L

E.H.6.1 Inactive and Unstaffed Sites –If you are seeking to exercise a monitoring or inspection waiver for inactive and unstaffed sites (including temporarily inactive sites), you are conditionally exempt from the requirement to certify that “there are no industrial materials or activities exposed to stormwater” in Schedule B.4 of the permit.

E.H.6.1.1 If circumstances change and your facility becomes active and/or staffed, this exception no longer applies and you must immediately begin complying with the monitoring and inspection; and

E.H.6.1.2 DEQ retains the authority to revoke this exemption and/or the monitoring waiver where it is determined that the discharge causes, has a reasonable potential to cause or contribute to an instream excursion above an applicable water quality standard, including designated uses.

E.H.7 Termination of Permit Coverage

- E.H.7.1 Termination of Permit Coverage for Sites Reclaimed After December 17, 1990. A site or a portion of a site that has been released from applicable state or federal reclamation requirements after December 17, 1990, is no longer required to maintain coverage under this permit. If the site or portion of a site reclaimed after December 17, 1990, was not subject to reclamation requirements, the site or portion of the site is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed.
- E.H.7.2 Termination of Permit Coverage for Sites Reclaimed Before December 17, 1990. A site or portion of a site that was released from applicable state or federal reclamation requirements before December 17, 1990, or that was otherwise reclaimed before December 17, 1990, is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed. A site or portion of a site is considered to have been reclaimed if: (1) stormwater runoff that comes into contact with raw materials, intermediate byproducts, finished products, and waste products does not have the potential to cause or contribute to violations of state water quality standards, (2) soil disturbing activities related to mining at the sites or portion of the site have been completed, (3) the site or portion of the site has been stabilized to minimize soil erosion, and (4) as appropriate depending on location, size, and the potential to contribute pollutants to stormwater discharges, the site or portion of the site has been revegetated, will be amenable to natural revegetation, or will be left in a condition consistent with the post-mining land use.

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart I – Sector I – Oil and Gas Extraction.

E.I.1 Additional Technology-Based Effluent Limits.

E.I.1.1 Vegetative Controls. Implement vegetative practices designed to preserve existing vegetation, where attainable, and revegetate open areas as soon as practicable after grade drilling. Consider the following (or equivalent measures): temporary or permanent seeding, mulching, sod stabilization, vegetative buffer strips, and tree protection practices. Begin implementing appropriate vegetative practices on all disturbed areas within 14 days following the last activity in that area.

E.I.2 Additional SWPCP Requirements.

E.I.2.1 Drainage Area Site Map. Document in your SWPCP where any of the following may be exposed to precipitation or surface runoff: Reportable Quantity (RQ) releases; locations used for the treatment, storage, or disposal of wastes; processing areas and storage areas; chemical mixing areas; construction and drilling areas; all areas subject to the effluent guidelines requirements for “No Discharge” in accordance with 40 CFR 435.32; and the structural controls to achieve compliance with the “No Discharge” requirements.

E.I.2.2 Potential Pollutant Sources. Also document in your SWPCP the following sources and activities that have potential pollutants associated with them: chemical, cement, mud, or gel mixing activities; drilling or mining activities; and equipment cleaning and rehabilitation activities. In addition, include information about the reportable quantity (RQ) release that triggered the permit application requirements: the nature of the release (e.g., spill of oil from a drum storage area), amount of oil or hazardous substance released, amount of substance recovered, date of the release, cause of the release (e.g., poor handling techniques and lack of containment in the area), areas affected by the release (i.e., land and water), procedure to clean up release, actions or procedures implemented to prevent or improve response to a release, and remaining potential contamination of stormwater from release (taking into account human health risks, the control of drinking water intakes, and the designated uses of the receiving water).

E.I.2.3 Erosion and Sedimentation Control. Unless covered by the NPDES Construction Stormwater 1200-C General Permit, the additional documentation requirements for sediment and erosion controls for well drillings and sand/shale mining areas include the following:

E.I.2.3.1 Site Description. Also include a description in your SWPCP of the nature of the exploration activity, estimates of the total area of site and area disturbed due to exploration activity, an estimate of runoff coefficient of the site, a site drainage map, including approximate slopes, and the names of all receiving waters.

E.I.2.3.2 Vegetative Controls. Document vegetative practices used in the SWPCP.

E.I.3 Additional Inspection Requirements.

All erosion and sedimentation control measures must be inspected every 7 days.

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart K – Sector K – Hazardous Waste Treatment, Storage, or Disposal Facilities.

E.K.1 Definitions.

- K.1.1 *Contaminated stormwater* - stormwater that comes into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater as defined in E.K.1.4. Some specific areas of a landfill that may produce contaminated stormwater include (but are not limited to) the open face of an active landfill with exposed waste (no cover added); the areas around wastewater treatment operations; trucks, equipment, or machinery that has been in direct contact with the waste; and waste dumping areas.
- K.1.2 *Drained free liquids* - aqueous wastes drained from waste containers (e.g., drums) prior to landfilling.
- K.1.3 *Landfill* - an area of land or an excavation in which wastes are placed for permanent disposal, but that is not a land application or land treatment unit, surface impoundment, underground injection well, waste pile, salt dome formation, salt bed formation, underground mine, or cave as these terms are defined in 40 CFR 257.2, 258.2, and 260.10.
- K.1.4 *Landfill wastewater* - as defined in 40 CFR Part 445 (Landfills Point Source Category), all wastewater associated with, or produced by, landfilling activities except for sanitary wastewater, non-contaminated stormwater, contaminated groundwater, and wastewater from recovery pumping wells. Landfill wastewater includes, but is not limited to, leachate, gas collection condensate, drained free liquids, laboratory derived wastewater, contaminated stormwater, and contact washwater from washing truck, equipment, and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.
- K.1.5 *Leachate* - liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste.
- K.1.6 *Non-contaminated stormwater* - stormwater that does not come into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater as defined in E.K.1.4. Non-contaminated stormwater includes stormwater that flows off the cap, cover, intermediate cover, daily cover, and/or final cover of the landfill.

E.K.2 Sector-Specific Benchmarks.

Table E.K-1 identifies benchmarks that apply to the specific subsectors of Sector K. These benchmarks apply to both your primary industrial activity and any co-located industrial activities, which describe your site activities.

Table E.K-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
ALL - Industrial Activity Code "HZ". Benchmarks only applicable to discharges not subject to effluent limitations in 40 CFR Part 445 Subpart A.	Ammonia	2.14 mg/L
	Total Magnesium	0.064 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Total Arsenic	0.15 mg/L
	Total Cadmium	0.001 mg/L
	Total Cyanide	0.022 mg/L
	Total Nickel	0.5 mg/L
	Total Mercury	0.0014 mg/L
	Total Selenium	0.005 mg/L
Total Silver	0.0005 mg/L	

E.K.3 Effluent Limitations Based on Effluent Limitations Guidelines

Table E.K-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Industrial Activity	Parameter	Effluent Limit
Discharges from hazardous waste landfills subject to effluent limitations in 40 CFR Part 445 Subpart A.	Biochemical Oxygen Demand (BOD ₅)	220 mg/L, daily maximum
		56 mg/L, monthly avg. maximum
	Total Suspended Solids (TSS)	88 mg/L, daily maximum
		27 mg/L, monthly avg. maximum
	Ammonia	10 mg/L, daily maximum
		4.9 mg/L, monthly avg. maximum
	Alpha Terpineol	0.042 mg/L, daily maximum
		0.019 mg/L, monthly avg. maximum
	Aniline	0.024 mg/L, daily maximum
		0.015 mg/L, monthly avg. maximum
	Benzoic Acid	0.119 mg/L, daily maximum
		0.073 mg/L, monthly avg. maximum
	Naphthalene	0.059 mg/L, daily maximum
		0.022 mg/L, monthly avg. maximum
	p-Cresol	0.024 mg/L, daily maximum
		0.015 mg/L, monthly avg. maximum
	Phenol	0.048 mg/L, daily maximum
		0.029 mg/L, monthly avg. maximum
Pyridine	0.072 mg/L, daily maximum	

Table 8.K-2 ¹		
Industrial Activity	Parameter	Effluent Limit
		0.025 mg/L, monthly avg. maximum
	Total Arsenic	1.1 mg/L, daily maximum
		0.54 mg/L, monthly avg. maximum
	Total Chromium	1.1 mg/L, daily maximum
		0.46 mg/L, monthly avg. maximum
	Total Zinc	0.535 mg/L, daily maximum
		0.296 mg/L, monthly avg. maximum
	pH	Within the range of 6-9 standard pH units (s.u.)

¹ Monitor annually. As set forth at 40 CFR Part 445 Subpart A, these numeric limitations apply to contaminated stormwater discharges from hazardous waste landfills subject to the provisions of RCRA Subtitle C at 40 CFR Parts 264 (Subpart N) and 265 (Subpart N) except for any of the following facilities:

- (a) landfills operated in conjunction with other industrial or commercial operations when the landfill receives only wastes generated by the industrial or commercial operation directly associated with the landfill;
- (b) landfills operated in conjunction with other industrial or commercial operations when the landfill receives wastes generated by the industrial or commercial operation directly associated with the landfill and also receives other wastes, provided that the other wastes received for disposal are generated by a facility that is subject to the same provisions in 40 CFR Subchapter N as the industrial or commercial operation or that the other wastes received are of similar nature to the wastes generated by the industrial or commercial operation;
- (c) landfills operated in conjunction with Centralized Waste Treatment (CWT) facilities subject to 40 CFR Part 437, so long as the CWT facility commingles the landfill wastewater with other non-landfill wastewater for discharge. A landfill directly associated with a CWT facility is subject to this part if the CWT facility discharges landfill wastewater separately from other CWT wastewater or commingles the wastewater from its landfill only with wastewater from other landfills; or
- (d) landfills operated in conjunction with other industrial or commercial operations when the landfill receives wastes from public service activities, so long as the company owning the landfill does not receive a fee or other remuneration for the disposal service.

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart L – Sector L – Landfills, Land Application Sites, and Open Dumps.

E.L.1 Definitions.

- E.L.1.1 Contaminated stormwater - stormwater that comes into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater. Some areas of a landfill that may produce contaminated stormwater include (but are not limited to) the open face of an active landfill with exposed waste (no cover added); the areas around wastewater treatment operations; trucks, equipment, or machinery that has been in direct contact with the waste; and waste dumping areas.
- E.L.1.2 Drained free liquids - aqueous wastes drained from waste containers (e.g., drums) prior to landfilling.
- E.L.1.3 Landfill wastewater - as defined in 40 CFR Part 445 (Landfills Point Source Category) all wastewater associated with, or produced by, landfilling activities except for sanitary wastewater, non-contaminated stormwater, contaminated groundwater, and wastewater from recovery pumping wells. Landfill process wastewater includes, but is not limited to, leachate; gas collection condensate; drained free liquids; laboratory-derived wastewater; contaminated stormwater; and contact washwater from washing truck, equipment, and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.
- E.L.1.4 Leachate - liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste.
- E.L.1.5 Non-contaminated stormwater - stormwater that does not come into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater. Non-contaminated stormwater includes stormwater that flows off the cap, cover, intermediate cover, daily cover, and/or final cover of the landfill.

E.L.2 Additional Technology-Based Effluent Limits.

- E.L.2.1 Preventive Maintenance Program. As part of your preventive maintenance program, maintain the following: all elements of leachate collection and treatment systems, to prevent commingling of leachate with stormwater; the integrity and effectiveness of any intermediate or final cover (including repairing the cover as necessary), to minimize the effects of settlement, sinking, and erosion.
- E.L.2.2 Erosion and Sedimentation Control. Provide temporary stabilization (e.g., temporary seeding, mulching, and placing geotextiles on the inactive portions of stockpiles) for the following: materials stockpiled for daily, intermediate, and final cover; inactive areas of the landfill or open dump; landfills or open dump areas that have gotten final covers but where vegetation has yet to establish itself; and land application sites where waste application has been completed but final vegetation has not yet been established.
- E.L.2.3 Unauthorized Discharge Test Certification. The discharge test and certification must also be conducted for the presence of leachate and vehicle washwater.

E.L.3 Additional SWPCP Requirements.

- E.L.3.1 Drainage Area Site Map. Document in your SWPCP where any of the following may be exposed to precipitation or surface runoff: active and closed landfill cells or trenches, active and closed land application areas, locations where open dumping is occurring or has occurred, locations of any known leachate springs or other areas where uncontrolled leachate may commingle with runoff, and leachate collection and handling systems.
- E.L.3.2 Summary of Potential Pollutant Sources. Document in your SWPCP the following sources and activities that have potential pollutants associated with them: fertilizer, herbicide, and pesticide application; earth and soil moving; waste hauling and loading or unloading; outdoor storage of significant materials, including daily, interim, and final cover material stockpiles as well as temporary waste storage areas; exposure of active and inactive landfill and land application areas; uncontrolled leachate flows; and failure or leaks from leachate collection and treatment systems.

E.L.4 Additional Inspection Requirements.

- E.L.4.1 Inspections of Active Sites. Except in arid and semi-arid climates, inspect operating landfills, open dumps, and land application sites at least once every 7 days. Focus on areas of landfills that have not yet been finally stabilized; active land application areas, areas used for storage of material and wastes that are exposed to precipitation, stabilization, and structural control measures; leachate collection and treatment systems; and locations where equipment and waste trucks enter and exit the site. Ensure that sediment and erosion control measures are operating properly. For stabilized sites and areas where land application has been completed, or where the climate is arid or semi-arid, conduct inspections at least once every month.
- E.L.4.2 Inspections of Inactive Sites. Inspect inactive landfills, open dumps, and land application sites at least monthly. Qualified personnel must inspect landfill (or open dump) stabilization and structural erosion control measures, leachate collection and treatment systems, and all closed land application areas.

E.L.5 Additional Post-Authorization Documentation Requirements.

- E.L.5.1 Recordkeeping and Internal Reporting. Keep records with your SWPCP of the types of wastes disposed of in each cell or trench of a landfill or open dump. For land application sites, track the types and quantities of wastes applied in specific areas.

E.L.6 Sector-Specific Benchmarks

Table E.L-1 identifies benchmarks that apply to the specific subsectors of Sector L. These benchmarks apply to both your primary industrial activity and any co-located industrial activities, which describe your site activities.

Table E.L-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration¹
All Landfill, Land Application Sites and Open Dumps, except Municipal Solid Waste Landfill (MSWLF) Areas Closed in Accordance with 40 CFR 258.60 (Industrial Activity Code “LF”)	Total Iron	1.0 mg/L

¹Benchmark monitoring required only for discharges not subject to effluent limitations in 40 CFR Part 445 Subpart B (see Table L-2 below).

E.L.7. Effluent Limitations Based on Effluent Limitations Guidelines

Table E.L-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table E.L-2¹

Industrial Activity	Parameter	Effluent Limit
Discharges from non-hazardous waste landfills subject to effluent limitations in 40 CFR Part 445 Subpart B.	Biochemical Oxygen Demand (BOD ₅)	140 mg/L, daily maximum
		37 mg/L, monthly avg. maximum
	Total Suspended Solids (TSS)	88 mg/L, daily maximum
		27 mg/L, monthly avg. maximum
	Ammonia	10 mg/L, daily maximum
		4.9 mg/L, monthly avg. maximum
	Alpha Terpineol	0.033 mg/L, daily maximum
		0.016 mg/L monthly avg. maximum
	Benzoic Acid	0.12 mg/L, daily maximum
		0.071 mg/L, monthly avg. maximum
	p-Cresol	0.025 mg/L, daily maximum
		0.014 mg/L, monthly avg. maximum
	Phenol	0.026 mg/L, daily maximum
		0.015 mg/L, monthly avg. maximum
Total Zinc	0.20 mg/L, daily maximum	
	0.11 mg/L, monthly avg. maximum	
pH	Within the range of 6-9 standard pH units (s.u.)	

¹ Monitor annually. As set forth at 40 CFR Part 445 Subpart B, these numeric limitations apply to contaminated stormwater discharges from MSWLFs that have not been closed in accordance with 40 CFR 258.60, and to contaminated stormwater discharges from those landfills that are subject to the provisions of 40 CFR Part 257 except for discharges from any of the following facilities:

- (a) landfills operated in conjunction with other industrial or commercial operations, when the landfill receives only wastes generated by the industrial or commercial operation directly associated with the landfill;
- (b) landfills operated in conjunction with other industrial or commercial operations, when the landfill receives wastes generated by the industrial or commercial operation directly associated with the landfill and also receives other wastes, provided that the other wastes received for disposal are generated by a facility that is subject to the same provisions in 40 CFR Subchapter N as the industrial or commercial operation, or that the other wastes received are of similar nature to the wastes generated by the industrial or commercial operation;
- (c) landfills operated in conjunction with CWT facilities subject to 40 CFR Part 437, so long as the CWT facility commingles the landfill wastewater with other non-landfill wastewater for discharge. A landfill directly associated with a CWT facility is subject to this part if the CWT facility discharges landfill wastewater separately from other CWT wastewater or commingles the wastewater from its landfill only with wastewater from other landfills; or
- (d) landfills operated in conjunction with other industrial or commercial operations when the landfill receives wastes from public service activities, so long as the company owning the landfill does not receive a fee or other remuneration for the disposal service.

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart M – Sector M – Automobile Salvage Yards.

E.M.1 Additional Technology-Based Effluent Limits.

- E.M.1.1 Spill and Leak Prevention Procedures. Drain vehicles intended to be dismantled of all fluids upon arrival at the site (or as soon thereafter as feasible), or employ some other equivalent means to prevent spills and leaks.
- E.M.1.2 Employee Training. If applicable to your facility, address the following areas (at a minimum) in your employee training program: proper handling (collection, storage, and disposal) of oil, used mineral spirits, anti-freeze, mercury switches, and solvents.
- E.M.1.3 Management of Runoff. Consider the following management practices: berms or drainage ditches on the property line (to help prevent run-on from neighboring properties); berms for uncovered outdoor storage of oily parts, engine blocks, and above-ground liquid storage; installation of detention ponds; and installation of filtering devices and oil and water separators.

E.M.2 Additional SWPCP Requirements.

- E.M.2.1 Drainage Area Site Map. Identify locations used for dismantling, storage, and maintenance of used motor vehicle parts. Also identify where any of the following may be exposed to precipitation or surface runoff: dismantling areas, parts (e.g., engine blocks, tires, hub caps, batteries, hoods, mufflers) storage areas, and liquid storage tanks and drums for fuel and other fluids.
- E.M.2.2 Potential Pollutant Sources. Assess the potential for the following to contribute pollutants to stormwater discharges: vehicle storage areas, dismantling areas, parts storage areas (e.g., engine blocks, tires, hub caps, batteries, hoods, mufflers), and fueling stations.

E.M.3 Additional Inspection Requirements. Immediately (or as soon thereafter as feasible) inspect vehicles arriving at the site for leaks. Inspect monthly for signs of leakage all equipment containing oily parts, hydraulic fluids, any other types of fluids, or mercury switches. Also, inspect monthly for signs of leakage all vessels and areas where hazardous materials and general automotive fluids are stored, including, but not limited to, mercury switches, brake fluid, transmission fluid, radiator water, and antifreeze.

E.M.4 Sector-Specific Benchmarks.

Table E.M-1 identifies benchmarks that apply to the specific subsectors of Sector M. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

Table E.M-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Automobile Salvage Yards (SIC 5015)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart N – Sector N – Scrap Recycling and Waste Recycling Facilities.

E.N.1 Additional Technology-Based Effluent Limits.

E.N.1.1 Scrap and Waste Recycling Facilities (Non-Source Separated, Nonliquid Recyclable Materials). Requirements for facilities that receive, process, and do wholesale distribution of nonliquid recyclable wastes (e.g., ferrous and nonferrous metals, plastics, glass, cardboard, and paper). These facilities may receive both nonrecyclable and recyclable materials. This section is not intended for those facilities that accept recyclables only from primarily non-industrial and residential sources.

- E.N.1.1.1 Inbound Recyclable and Waste Material Control Program. Minimize the chance of accepting materials that could be significant sources of pollutants by conducting inspections of inbound recyclables and waste materials. Following are some control measure options: (a) provide information and education to suppliers of scrap and recyclable waste materials on draining and properly disposing of residual fluids (e.g., from vehicles and equipment engines, radiators and transmissions, oil filled transformers, and individual containers or drums) and removal of mercury switches from vehicles before delivery to your facility; (b) establish procedures to minimize the potential of any residual fluids from coming into contact with precipitation or runoff; (c) establish procedures for accepting scrap lead-acid batteries (additional requirements for the handling, storage, and disposal or recycling of batteries are contained in the scrap lead-acid battery program provisions in Schedule E.N.3.1.6); (d) provide training targeted for those personnel engaged in the inspection and acceptance of inbound recyclable materials; and (e) establish procedures to ensure that liquid wastes, including used oil, are stored in materially compatible and non-leaking containers and are disposed of or recycled in accordance with the Resource Conservation and Recovery Act (RCRA).
- E.N.1.1.2 Scrap and Waste Material Stockpiles and Storage (Outdoor). Minimize contact of stormwater runoff with stockpiled materials, processed materials, and nonrecyclable wastes. Following are some control measure options: (a) permanent or semi-permanent covers; (b) sediment traps, vegetated swales and strips, catch basin filters, and sand filters to facilitate settling or filtering of pollutants; (c) dikes, berms, containment trenches, culverts, and surface grading to divert runoff from storage areas; (d) silt fencing; and (e) oil and water separators, sumps, and dry absorbents for areas where potential sources of residual fluids are stockpiled (e.g., automobile engine storage areas).
- E.N.1.1.3 Stockpiling of Turnings Exposed to Cutting Fluids (Outdoor Storage). Minimize contact of surface runoff with residual cutting fluids by: (a) storing all turnings exposed to cutting fluids under some form of permanent or semi-permanent cover, or (b) establishing dedicated containment areas for all turnings that have been exposed to cutting fluids. Any containment areas must be constructed of concrete, asphalt, or other equivalent types of impermeable material and include a barrier (e.g., berms, curbing, elevated pads) to prevent contact with stormwater run-on. Stormwater runoff from these areas can be discharged, provided that any runoff is first collected and treated by an oil and water separator or its equivalent. You must regularly

maintain the oil and water separator (or its equivalent) and properly dispose of or recycle collected residual fluids.

- E.N.1.1.4 Scrap and Waste Material Stockpiles and Storage (Covered or Indoor Storage). Minimize contact of residual liquids and particulate matter from materials stored indoors or under cover with surface runoff. Following are some control measure options: (a) good housekeeping measures, including the use of dry absorbents or wet vacuuming to contain, dispose of, or recycle residual liquids originating from recyclable containers, or mercury spill kits for spills from storage of mercury switches; (b) not allowing washwater from tipping floors or other processing areas to discharge to the storm sewer system; and (c) disconnecting or sealing off all floor drains connected to the storm sewer system.
- E.N.1.1.5 Scrap and Recyclable Waste Processing Areas. Minimize surface runoff from coming in contact with scrap processing equipment. Pay attention to operations that generate visible amounts of particulate residue (e.g., shredding) to minimize the contact of accumulated particulate matter and residual fluids with runoff (i.e., through good housekeeping, preventive maintenance, etc.). Following are some control measure options: (a) regularly inspect equipment for spills or leaks and malfunctioning, worn, or corroded parts or equipment; (b) establish a preventive maintenance program for processing equipment; (c) use dry-absorbents or other cleanup practices to collect and dispose of or recycle spilled or leaking fluids or use mercury spill kits for spills from storage of mercury switches; (d) on unattended hydraulic reservoirs over 150 gallons in capacity, install protection devices such as low-level alarms or equivalent devices, or secondary containment that can hold the entire volume of the reservoir; (e) containment or diversion structures such as dikes, berms, culverts, trenches, elevated concrete pads, and grading to minimize contact of stormwater runoff with outdoor processing equipment or stored materials; (f) oil and water separators or sumps; (g) permanent or semi-permanent covers in processing areas where there are residual fluids and grease; (h) retention or detention ponds or basins; sediment traps, and vegetated swales or strips (for pollutant settling and filtration); (i) catch basin filters or sand filters.
- E.N.1.1.6 Scrap Lead-Acid Battery Program. Properly handle, store, and dispose of scrap lead-acid batteries. Following are some control measure options (a) segregate scrap lead-acid batteries from other scrap materials; (b) properly handle, store, and dispose of cracked or broken batteries; (c) collect and dispose of leaking lead-acid battery fluid; (d) minimize or eliminate (if possible) exposure of scrap lead-acid batteries to precipitation or runoff; and (e) provide employee training for the management of scrap batteries.
- E.N.1.1.7 Spill Prevention and Response Procedures. (See also Schedule A.1.h) Install alarms and/or pump shutoff systems on outdoor equipment with hydraulic reservoirs exceeding 150 gallons in the event of a line break. Alternatively, a secondary containment system capable of holding the entire contents of the reservoir plus room for precipitation can be used. Use a mercury spill kit for any release of mercury from switches, anti-lock brake systems, and switch storage areas.

E.N.1.1.8 Supplier Notification Program. As appropriate, notify major suppliers which scrap materials will not be accepted at the facility or will be accepted only under certain conditions.

E.N.1.2 Waste Recycling Facilities (Liquid Recyclable Materials).

E.N.1.2.1 Waste Material Storage (Indoor). Minimize or eliminate contact between residual liquids from waste materials stored indoors and from surface runoff. The plan may refer to applicable portions of other existing plans, such as Spill Prevention, Control, and Countermeasure (SPCC) plans required under 40 CFR Part 112. Following are some control measure options (a) procedures for material handling (including labeling and marking); (b) clean up spills and leaks with dry absorbent materials, a wet vacuum system; (c) appropriate containment structures (trenching, curbing, gutters, etc.); and (d) a drainage system, including appurtenances (e.g., pumps or ejectors, manually operated valves), to handle discharges from diked or bermed areas. Drainage should be discharged to an appropriate treatment facility or sanitary sewer system, or otherwise disposed of properly. These discharges may require coverage under a separate NPDES wastewater permit or industrial user permit under the pretreatment program.

E.N.1.2.2 Waste Material Storage (Outdoor). Minimize contact between stored residual liquids and precipitation or runoff. The plan may refer to applicable portions of other existing plans, such as SPCC plans required under 40 CFR Part 112. Discharges of precipitation from containment areas containing used oil must also be in accordance with applicable sections of 40 CFR Part 112. Following are some control measure options (a) appropriate containment structures (e.g., dikes, berms, curbing, pits) to store the volume of the largest tank, with sufficient extra capacity for precipitation; (b) drainage control and other diversionary structures; (c) corrosion protection and/or leak detection systems for storage tanks; and (d) dry-absorbent materials or a wet vacuum system to collect spills.

E.N.1.2.3 Trucks and Rail Car Waste Transfer Areas. Minimize pollutants in discharges from truck and rail car loading and unloading areas. Include measures to clean up minor spills and leaks resulting from the transfer of liquid wastes. Following are two control measure options: (a) containment and diversionary structures to minimize contact with precipitation or runoff, and (b) dry clean-up methods, wet vacuuming, roof coverings, or runoff controls.

E.N.1.3 Recycling Facilities (Source-Separated Materials). The following identifies considerations for facilities that receive only source-separated recyclables, primarily from non-industrial and residential sources.

E.N.1.3.1 Inbound Recyclable Material Control. Minimize the chance of accepting nonrecyclables (e.g., hazardous materials) that could be a significant source of pollutants by conducting inspections of inbound materials. Following are some control measure options: (a) providing information and education measures to inform suppliers of recyclables about acceptable and non-acceptable materials, (b) training

drivers responsible for pickup of recycled material, (c) clearly marking public drop-off containers regarding which materials can be accepted, (d) rejecting nonrecyclable wastes or household hazardous wastes at the source, and (e) establishing procedures for handling and disposal of nonrecyclable material.

- E.N.1.3.2 **Outdoor Storage.** Minimize exposure of recyclables to precipitation and runoff. Use good housekeeping measures to prevent accumulation of particulate matter and fluids, particularly in high traffic areas. Following are some control measure options (a) provide totally enclosed drop-off containers for the public; (b) install a sump and pump with each container pit and treat or discharge collected fluids to a sanitary sewer system; (c) provide dikes and curbs for secondary containment (e.g., around bales of recyclable waste paper); (d) divert surface water runoff away from outside material storage areas; (e) provide covers over containment bins, dumpsters, and roll-off boxes; and (f) store the equivalent of one day's volume of recyclable material indoors.
- E.N.1.3.3 **Indoor Storage and Material Processing.** Minimize the release of pollutants from indoor storage and processing areas. Following are some control measure options (a) schedule routine good housekeeping measures for all storage and processing areas, (b) prohibit tipping floor washwater from draining to the storm sewer system, and (c) provide employee training on pollution prevention practices.
- E.N.1.3.4 **Vehicle and Equipment Maintenance.** Following are some control measure options for areas where vehicle and equipment maintenance occur outdoors (a) prohibit vehicle and equipment washwater from discharging to the storm sewer system, (b) minimize or eliminate outdoor maintenance areas whenever possible, (c) establish spill prevention and clean-up procedures in fueling areas, (d) avoid topping off fuel tanks, (e) divert runoff from fueling areas, (f) store lubricants and hydraulic fluids indoors, and (g) provide employee training on proper handling and storage of hydraulic fluids and lubricants.

E.N.2 Additional SWPCP Requirements.

- E.N.2.1 **Drainage Area Site Map.** Document in your SWPCP the locations of any of the following activities or sources that may be exposed to precipitation or surface runoff: scrap and waste material storage, outdoor scrap and waste processing equipment; and containment areas for turnings exposed to cutting fluids.
- E.N.2.2 **Maintenance Schedules/Procedures for Collection, Handling, and Disposal or Recycling of Residual Fluids at Scrap and Waste Recycling Facilities.** If you are subject to Schedule E.N.1.1.3, your SWPCP must identify any applicable maintenance schedule and the procedures to collect, handle, and dispose of or recycle residual fluids.

E.N.3 Sector-Specific Benchmarks.

Table E.N-1 identifies benchmarks that apply to the specific subsectors of Sector N. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

Table E.N-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Scrap Recycling and Waste Recycling Facilities except Source-Separated Recycling (SIC 5093)	Chemical Oxygen Demand (COD)	120 mg/L
	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart O – Sector O – Steam Electric Generating Facilities.

E.O.1 Additional Technology-Based Effluent Limits. The following good housekeeping measures are required in addition to Schedule A.4 of permit:

- E.O.1.1 Fugitive Dust Emissions. Minimize fugitive dust emissions from coal handling areas. To minimize the tracking of coal dust offsite, consider procedures such as installing specially designed tires or washing vehicles in a designated area before they leave the site and controlling the wash water.
- E.O.1.2 Delivery Vehicles. Minimize contamination of stormwater runoff from delivery vehicles arriving at the plant site. Consider procedures to inspect delivery vehicles arriving at the plant site and ensure overall integrity of the body or container and procedures to deal with leakage or spillage from vehicles or containers.
- E.O.1.3 Fuel Oil Unloading Areas. Minimize contamination of precipitation or surface runoff from fuel oil unloading areas. Consider using containment curbs in unloading areas, having personnel familiar with spill prevention and response procedures present during deliveries to ensure that any leaks or spills are immediately contained and cleaned up, and using spill and overflow protection devices (e.g., drip pans, drip diapers, or other containment devices placed beneath fuel oil connectors to contain potential spillage during deliveries or from leaks at the connectors).
- E.O.1.4 Chemical Loading and Unloading. Minimize contamination of precipitation or surface runoff from chemical loading and unloading areas. Consider using containment curbs at chemical loading and unloading areas to contain spills, having personnel familiar with spill prevention and response procedures present during deliveries to ensure that any leaks or spills are immediately contained and cleaned up, and loading and unloading in covered areas and storing chemicals indoors.
- E.O.1.5 Miscellaneous Loading and Unloading Areas. Minimize contamination of precipitation or surface runoff from loading and unloading areas. Consider covering the loading area; grading, berming, or curbing around the loading area to divert run-on; locating the loading and unloading equipment and vehicles so that leaks are contained in existing containment and flow diversion systems; or equivalent procedures.
- E.O.1.6 Liquid Storage Tanks. Minimize contamination of surface runoff from above-ground liquid storage tanks. Consider protective guards around tanks, containment curbs, spill and overflow protection, dry cleanup methods, or equivalent measures.
- E.O.1.7 Large Bulk Fuel Storage Tanks. Minimize contamination of surface runoff from large bulk fuel storage tanks. Consider containment berms (or their equivalent). You must also comply with applicable State and Federal laws, including Spill Prevention, Control and Countermeasure (SPCC) Plan requirements.
- E.O.1.8 Spill Reduction Measures. Minimize the potential for an oil or chemical spill, or reference the appropriate part of your SPCC plan. Visually inspect as part of your routine facility inspection the structural integrity of all above-ground tanks, pipelines, pumps, and related equipment that may be exposed to stormwater, and make any necessary repairs immediately.

- E.O.1.9 Oil-Bearing Equipment in Switchyards. Minimize contamination of surface runoff from oil-bearing equipment in switchyard areas. Consider using level grades and gravel surfaces to retard flows and limit the spread of spills, or collecting runoff in perimeter ditches.
- E.O.1.10 Residue-Hauling Vehicles. Inspect all residue-hauling vehicles for proper covering over the load, adequate gate sealing, and overall integrity of the container body. Repair vehicles without load covering or adequate gate sealing, or with leaking containers or beds.
- E.O.1.11 Ash Loading Areas. Reduce or control the tracking of ash and residue from ash loading areas. Clear the ash building floor and immediately adjacent roadways of spillage, debris, and excess water before departure of each loaded vehicle.
- E.O.1.12 Areas Adjacent to Disposal Ponds or Landfills. Minimize contamination of surface runoff from areas adjacent to disposal ponds or landfills. Reduce ash residue that may be tracked on to access roads traveled by residue handling vehicles, and reduce ash residue on exit roads leading into and out of residue handling areas.
- E.O.1.13 Landfills, Scrap yards, Surface Impoundments, Open Dumps, General Refuse Sites. Minimize the potential for contamination of runoff from these areas.

E.O.2 Additional SWPCP Requirements.

- E.O.2.1 Drainage Area Site Map. Document in your SWPCP the locations of any of the following activities or sources that may be exposed to precipitation or surface runoff: storage tanks, scrap yards, and general refuse areas; short- and long-term storage of general materials (including but not limited to supplies, construction materials, paint equipment, oils, fuels, used and unused solvents, cleaning materials, paint, water treatment chemicals, fertilizer, and pesticides); landfills and construction sites; and stock pile areas (e.g., coal or limestone piles).

E.O.3 Additional Inspection Requirements.

- E.O.3.1 Inspection. Inspect the following areas monthly: coal handling areas, loading or unloading areas, switchyards, fueling areas, bulk storage areas, ash handling areas, areas adjacent to disposal ponds and landfills, maintenance areas, liquid storage tanks, and long term and short term material storage areas.

E.O.4 Sector-Specific Benchmarks

Table E.O-1 identifies benchmarks that apply to the specific subsectors of Sector O. These benchmarks apply to both your primary industrial activity and any co-located industrial activities, which describe your site activities.

Table E.O-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Steam Electric Generating Facilities (Industrial Activity Code "SE")	Total Iron	1.0 mg/L

E.O.5 Effluent Limitations Based on Effluent Limitations Guidelines

Table E.O-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table E.O-2¹

Industrial Activity	Parameter	Effluent Limit
Discharges from coal storage piles at Steam Electric Generating Facilities	TSS	50 mg/l ²
	pH	6.0 min - 9.0 max

¹ Monitor annually.

² If your facility is designed, constructed, and operated to treat the volume of coal pile runoff that is associated with a 10-year, 24-hour rainfall event, any untreated overflow of coal pile runoff from the treatment unit is not subject to the 50 mg/L limitation for total suspended solids.

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart P – Sector P – Land Transportation and Warehousing.

E.P.1 Additional Technology-Based Effluent Limits.

- E.P.1.1 Good Housekeeping Measures. In addition to the Good Housekeeping requirements in Schedule A.4 of the permit, you must do the following:
- E.P.1.1.1 Vehicle and Equipment Storage Areas. Minimize the potential for stormwater exposure to leaky or leak-prone vehicles/equipment awaiting maintenance. Consider the following (or other equivalent measures): use of drip pans under vehicles/equipment, indoor storage of vehicles and equipment, installation of berms or dikes, use of absorbents, roofing or covering storage areas, and cleaning pavement surfaces to remove oil and grease.
 - E.P.1.1.2 Fueling Areas. Minimize contamination of stormwater runoff from fueling areas. Consider the following (or other equivalent measures): Covering the fueling area; using spill/overflow protection and cleanup equipment; minimizing stormwater run-on/runoff to the fueling area; using dry cleanup methods; and treating and/or recycling collected stormwater runoff.
 - E.P.1.1.3 Material Storage Areas. Maintain all material storage vessels (e.g., for used oil/oil filters, spent solvents, paint wastes, hydraulic fluids) to prevent contamination of stormwater and plainly label them (e.g., “Used Oil,” “Spent Solvents,” etc.). Consider the following (or other equivalent measures): storing the materials indoors; installing berms/dikes around the areas; minimizing runoff of stormwater to the areas; using dry cleanup methods; and treating and/or recycling collected stormwater runoff.
 - E.P.1.1.4 Vehicle and Equipment Cleaning Areas. Minimize contamination of stormwater runoff from all areas used for vehicle/equipment cleaning. Consider the following (or other equivalent measures): performing all cleaning operations indoors; covering the cleaning operation, ensuring that all washwater drains to a proper collection system (i.e., not the stormwater drainage system); treating and/or recycling collected washwater, or other equivalent measures.
 - E.P.1.1.5 Vehicle and Equipment Maintenance Areas. Minimize contamination of stormwater runoff from all areas used for vehicle/equipment maintenance. Consider the following (or other equivalent measures): performing maintenance activities indoors; using drip pans; keeping an organized inventory of materials used in the shop; draining all parts of fluid prior to disposal; prohibiting wet clean up practices if these practices would result in the discharge of pollutants to stormwater drainage systems; using dry cleanup methods; treating and/or recycling collected stormwater runoff, minimizing run on/runoff of stormwater to maintenance areas.
 - E.P.1.1.6 Locomotive Sanding (Loading Sand for Traction) Areas. Consider the following (or other equivalent measures): covering sanding areas; minimizing stormwater run on/runoff; or appropriate sediment removal practices to minimize the offsite transport of sanding material by stormwater.

E.P.1.2 Employee Training. Address the following activities, as applicable: used oil and spent solvent management; fueling procedures; general good housekeeping practices; proper painting procedures; and used battery management.

E.P.2 Additional SWPCP Requirements.

E.P.2.1 Drainage Area Site Map. Identify in the SWPCP the following areas of the facility and indicate whether activities occurring there may be exposed to precipitation/surface runoff: Fueling stations; vehicle/equipment maintenance or cleaning areas; storage areas for vehicle/equipment with actual or potential fluid leaks; loading/unloading areas; areas where treatment, storage or disposal of wastes occur; liquid storage tanks; processing areas; and storage areas.

E.P.2.2 Potential Pollutant Sources. Assess the potential for the following activities and facility areas to contribute pollutants to stormwater discharges: Onsite waste storage or disposal; dirt/gravel parking areas for vehicles awaiting maintenance; illicit plumbing connections between shop floor drains and the stormwater conveyance system(s); and fueling areas. Describe these activities in the SWPCP.

E.P.3 Additional Inspection Requirements. Inspect all the following areas/activities: storage areas for vehicles/equipment awaiting maintenance, fueling areas, indoor and outdoor vehicle/equipment maintenance areas, material storage areas, vehicle/equipment cleaning areas and loading/unloading areas.

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart Q – Sector Q – Water Transportation.

E.Q.1 Additional Technology-Based Effluent Limits.

E.Q.1.1 Good Housekeeping Measures. You must implement the following good housekeeping measures in addition to requirements in Schedule A.1 of the permit:

- E.Q.1.1.1 Pressure Washing Area. Collect or contain the discharges from the pressures washing area so that they are not co-mingled with stormwater discharges authorized by this permit.
- E.Q.1.1.2 Blasting and Painting Area. Minimize the potential for spent abrasives, paint chips, and overspray to discharge into receiving waters or the storm sewer systems. Consider containing all blasting and painting activities or use other measures to minimize the discharge of contaminants (e.g., hanging plastic barriers or tarpaulins during blasting or painting operations to contain debris). When necessary, regularly clean stormwater conveyances of deposits of abrasive blasting debris and paint chips.
- E.Q.1.1.3 Material Storage Areas. Store and plainly label all containerized materials (e.g., fuels, paints, solvents, waste oil, antifreeze, batteries) in a protected, secure location away from drains. Minimize the contamination of precipitation or surface runoff from the storage areas. Specify which materials are stored indoors, and consider containment or enclosure for those stored outdoors. If abrasive blasting is performed, discuss the storage and disposal of spent abrasive materials generated at the facility. Consider implementing an inventory control plan to limit the presence of potentially hazardous materials onsite.
- E.Q.1.1.4 Engine Maintenance and Repair Areas. Minimize the contamination of precipitation or surface runoff from all areas used for engine maintenance and repair. Consider the following (or their equivalents): performing all maintenance activities indoors, maintaining an organized inventory of materials used in the shop, draining all parts of fluid prior to disposal, prohibiting the practice of hosing down the shop floor, using dry cleanup methods, and treating and/or recycling stormwater runoff collected from the maintenance area.
- E.Q.1.1.5 Material Handling Area. Minimize the contamination of precipitation or surface runoff from material handling operations and areas (e.g., fueling, paint and solvent mixing, disposal of process wastewater streams from vessels). Consider the following (or their equivalents): covering fueling areas, using spill and overflow protection, mixing paints and solvents in a designated area (preferably indoors or under a shed), and minimizing runoff of stormwater to material handling areas.
- E.Q.1.1.6 Drydock Activities. Routinely maintain and clean the drydock to minimize pollutants in stormwater runoff. Address the cleaning of accessible areas of the drydock prior to flooding, and final cleanup following removal of the vessel and raising the dock. Include procedures for cleaning up oil, grease, and fuel spills occurring on the drydock. Consider the following (or their equivalents): sweeping rather than hosing off debris and spent blasting material from accessible areas of the drydock prior to

flooding and making absorbent materials and oil containment booms readily available to clean up or contain any spills.

- E.Q.1.2 Employee Training. At a minimum, address the following activities (as applicable): used oil management, spent solvent management, disposal of spent abrasives, disposal of vessel wastewaters, spill prevention and control, fueling procedures, general good housekeeping practices, painting and blasting procedures, and used battery management.
- E.Q.1.3 Preventive Maintenance. As part of your preventive maintenance program, perform timely inspection and maintenance of stormwater management devices (e.g., cleaning oil and water separators and sediment traps to ensure that spent abrasives, paint chips, and solids will be intercepted and retained prior to entering the storm drainage system), as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.

E.Q.2 Additional SWPCP Requirements.

- E.Q.2.1 Drainage Area Site Map. Document in your SWPCP where any of the following may be exposed to precipitation or surface runoff: fueling; engine maintenance and repair; vessel maintenance and repair; pressure washing; painting; sanding; blasting; welding; metal fabrication; loading and unloading areas; locations used for the treatment, storage, or disposal of wastes; liquid storage tanks; liquid storage areas (e.g., paint, solvents, resins); and material storage areas (e.g., blasting media, aluminum, steel, scrap iron).
- E.Q.2.2 Summary of Potential Pollutant Sources. Document in the SWPCP the following additional sources and activities that have potential pollutants associated with them: outdoor manufacturing or processing activities (e.g., welding, metal fabricating) and significant dust or particulate generating processes (e.g., abrasive blasting, sanding, and painting.)

E.Q.3 Additional Inspection Requirements.

Inspect pressure washing area; blasting, sanding, and painting areas; material storage areas; engine maintenance and repair areas; material handling areas; drydock area; and general yard area.

E.Q.4 Sector-Specific Benchmarks.

Table E.Q-1 identifies benchmarks that apply to the specific subsectors of Sector Q. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

Table E.Q-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Water Transportation Facilities (SIC 4412-4499)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart R – Sector R – Ship and Boat Building and Repair Yards.

E.R.1 Additional Technology-Based Effluent Limits.

E.R.1.1 Good Housekeeping Measures.

- E.R.1.1.1 Pressure Washing Area. If pressure washing is used to remove marine growth from vessels, the discharged water must be permitted as a process wastewater by a separate NPDES permit.
 - E.R.1.1.2 Blasting and Painting Area. Minimize the potential for spent abrasives, paint chips, and overspray to discharging into the receiving water or the storm sewer systems. Consider containing all blasting and painting activities, or use other measures to prevent the discharge of the contaminants (e.g., hanging plastic barriers or tarpaulins during blasting or painting operations to contain debris). When necessary, regularly clean stormwater conveyances of deposits of abrasive blasting debris and paint chips.
 - E.R.1.1.3 Material Storage Areas. Store and plainly label all containerized materials (e.g., fuels, paints, solvents, waste oil, antifreeze, batteries) in a protected, secure location away from drains. Minimize the contamination of precipitation or surface runoff from the storage areas. If abrasive blasting is performed, discuss the storage and disposal of spent abrasive materials generated at the facility. Consider implementing an inventory control plan to limit the presence of potentially hazardous materials onsite.
 - E.R.1.1.4 Engine Maintenance and Repair Areas. Minimize the contamination of precipitation or surface runoff from all areas used for engine maintenance and repair. Consider the following (or their equivalents): performing all maintenance activities indoors, maintaining an organized inventory of materials used in the shop, draining all parts of fluid prior to disposal, prohibiting the practice of hosing down the shop floor, using dry cleanup methods, and treating and/or recycling stormwater runoff collected from the maintenance area.
 - E.R.1.1.5 Material Handling Area. Minimize the contamination of precipitation or surface runoff from material handling operations and areas (e.g., fueling, paint and solvent mixing, disposal of process wastewater streams from vessels). Consider the following (or their equivalents): covering fueling areas, using spill and overflow protection, mixing paints and solvents in a designated area (preferably indoors or under a shed), and minimizing stormwater run-on to material handling areas.
 - E.R.1.1.6 Drydock Activities. Routinely maintain and clean the drydock to minimize pollutants in stormwater runoff. Clean accessible areas of the drydock prior to flooding and final cleanup following removal of the vessel and raising the dock. Include procedures for cleaning up oil, grease, or fuel spills occurring on the drydock. Consider the following (or their equivalents): sweeping rather than hosing off debris and spent blasting material from accessible areas of the drydock prior to flooding, and having absorbent materials and oil containment booms readily available to clean up and contain any spills.
- E.R.1.2 Employee Training. As part of your employee training program, address, at a minimum, the following activities (as applicable): used oil management, spent solvent management, disposal

of spent abrasives, disposal of vessel wastewaters, spill prevention and control, fueling procedures, general good housekeeping practices, painting and blasting procedures, and used battery management.

- E.R.1.3 Preventive Maintenance. As part of your preventive maintenance program, perform timely inspection and maintenance of stormwater management devices (e.g., cleaning oil and water separators and sediment traps to ensure that spent abrasives, paint chips, and solids will be intercepted and retained prior to entering the storm drainage system), as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.

E.R.2 Additional SWPCP Requirements.

- E.R.2.1 Drainage Area Site Map. Document in your SWPCP where any of the following may be exposed to precipitation or surface runoff: fueling; engine maintenance or repair; vessel maintenance or repair; pressure washing; painting; sanding; blasting; welding; metal fabrication; loading and unloading areas; treatment, storage, and waste disposal areas; liquid storage tanks; liquid storage areas (e.g., paint, solvents, resins); and material storage areas (e.g., blasting media, aluminum, steel, scrap iron).
- E.R.2.2 Potential Pollutant Sources. Document in your SWPCP the following additional sources and activities that have potential pollutants associated with them (if applicable): outdoor manufacturing or processing activities (e.g., welding, metal fabricating) and significant dust or particulate generating processes (e.g., abrasive blasting, sanding, and painting).
- E.R.2.3 Documentation of Good Housekeeping Measures. Document in your SWPCP any good housekeeping measures implemented to meet the effluent limits in Schedule E.R.1.1.
- E.R.2.3.1 Blasting and Painting Areas. Document in the SWPCP any standard operating practices relating to blasting and painting (e.g., prohibiting uncontained blasting and painting over open water or prohibiting blasting and painting during windy conditions, which can render containment ineffective).
- E.R.2.3.2 Storage Areas. Specify in your SWPCP which materials are stored indoors, and consider containment or enclosure for those stored outdoors.

E.R.3 Additional Inspection Requirements.

Include the following in all monthly inspections: pressure washing area; blasting, sanding, and painting areas; material storage areas; engine maintenance and repair areas; material handling areas; drydock area; and general yard area.

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart S – Sector S – Air Transportation.

E.S.1 Additional Technology-Based Effluent Limits.

E.S.1.1 Good Housekeeping Measures.

- E.S.1.1.1 Aircraft, Ground Vehicle and Equipment Maintenance Areas. Minimize the contamination of stormwater runoff from all areas used for aircraft, ground vehicle and equipment maintenance (including the maintenance conducted on the terminal apron and in dedicated hangers). Consider the following practices (or their equivalents): performing maintenance activities indoors; maintaining an organized inventory of material used in the maintenance areas; draining all parts of fluids prior to disposal; prohibiting the practice of hosing down the apron or hanger floor; using dry cleanup methods; and collecting the stormwater runoff from the maintenance area and providing treatment or recycling.
- E.S.1.1.2 Aircraft, Ground Vehicle and Equipment Cleaning Areas. Clearly demarcate these areas on the ground using signage or other appropriate means. Minimize the contamination of stormwater runoff from cleaning areas.
- E.S.1.1.3 Aircraft, Ground Vehicle and Equipment Storage Areas. Store all aircraft, ground vehicles and equipment awaiting maintenance in designated areas only and minimize the contamination of stormwater runoff from these storage areas. Consider the following control measures, including any BMPs (or their equivalents): storing aircraft and ground vehicles indoors; using drip pans for the collection of fluid leaks; and perimeter drains, dikes or berms surrounding the storage areas.
- E.S.1.1.4 Material Storage Areas. Maintain the vessels of stored materials (e.g., used oils, hydraulic fluids, spent solvents, and waste aircraft fuel) in good condition, to prevent or minimize contamination of stormwater. Also plainly label the vessels (e.g., “used oil,” “Contaminated Jet A,” etc.). Minimize contamination of precipitation/runoff from these areas. Consider the following control measures (or their equivalents): storing materials indoors; storing waste materials in a centralized location; and installing berms/dikes around storage areas.
- E.S.1.1.5 Airport Fuel System and Fueling Areas. Minimize the discharge of fuel to the storm sewer/surface waters resulting from fuel servicing activities or other operations conducted in support of the airport fuel system. Consider the following control measures (or their equivalents): implementing spill and overflow practices (e.g., placing absorptive materials beneath aircraft during fueling operations); using only dry cleanup methods; and collecting stormwater runoff.
- E.S.1.1.6 Source Reduction. Minimize, and where feasible eliminate, the use of urea and glycol-based deicing chemicals, in order to reduce the aggregate amount of deicing chemicals used and/or lessen the environmental impact. Chemical options to replace ethylene glycol, propylene glycol and urea include: potassium acetate; magnesium acetate; calcium acetate; and anhydrous sodium acetate.
 - E.S.1.1.6.1 Runway Deicing Operation: Minimize contamination of stormwater runoff from runways as a result of deicing operations. Evaluate whether

over-application of deicing chemicals occurs by analyzing application rates, and adjust as necessary, consistent with considerations of flight safety. Also consider these control measure options (or their equivalents): metered application of chemicals; pre-wetting dry chemical constituents prior to application; installing a runway ice detection system; implementing anti-icing operations as a preventive measure against ice buildup.

- E.S.1.1.6.2 Aircraft Deicing Operations. Minimize contamination of stormwater runoff from aircraft deicing operations. Determine whether excessive application of deicing chemicals occurs and adjust as necessary, consistent with considerations of flight safety. This evaluation should be carried out by the personnel most familiar with the particular aircraft and flight operations in question (versus an outside entity such as the airport authority). Consider using alternative deicing/anti-icing agents as well as containment measures for all applied chemicals. Also consider these control measure options (or their equivalents) for reducing deicing fluid use: forced-air deicing systems, computer-controlled fixed-gantry systems, infrared technology, hot water, varying glycol content to air temperature, enclosed-basket deicing trucks, mechanical methods, solar radiation, hangar storage, aircraft covers, and thermal blankets for MD-E0s and DC-9s. Also consider using ice-detection systems and airport traffic flow strategies and departure slot allocation systems.
- E.S.1.1.7 Management of Runoff. Where deicing operations occur, implement a program to control or manage contaminated runoff to minimize the amount of pollutants being discharged from the site. Consider these control measure options (or their equivalents): a dedicated deicing facility with a runoff collection/ recovery system; using vacuum/collection trucks; storing contaminated stormwater/deicing fluids in tanks and releasing controlled amounts to a publicly owned treatment works; collecting contaminated runoff in a wet pond for biochemical decomposition (be aware of attracting wildlife that may prove hazardous to flight operations); and directing runoff into vegetative swales or other infiltration measures. Also consider recovering deicing materials when these materials are applied during non-precipitation events (e.g., covering storm sewer inlets, using booms, installing absorptive interceptors in the drains, etc.) to prevent these materials from later becoming a source of stormwater contamination. Used deicing fluid should be recycled whenever possible.
- E.S.1.2 Deicing Season. You must determine the seasonal timeframe (e.g., December- February, October - March, etc.) during which deicing activities typically occur at the facility. Implementation of control measures, including any BMPs, facility inspections and monitoring must be conducted with particular emphasis throughout the defined deicing season. If you meet the deicing chemical usage thresholds of 100,000 gallons glycol and/or 100 tons of urea, the deicing season you identified is the timeframe during which you must obtain the four required benchmark monitoring event results for deicing-related parameters, i.e., BOD, COD, ammonia and pH.

E.S.2 Additional SWPCP Requirements.

The airport authority and tenants of the airport are encouraged to work in partnership in the development of the SWPCP. Tenants of the airport facility include air passenger or cargo companies, fixed based operators and other parties who have contracts with the airport authority to conduct business operations on airport property and whose operations result in stormwater discharges associated with industrial activity. An airport tenant may obtain authorization under this permit and develop a SWPCP for discharges from his/her own areas of the airport.

- E.S.2.1 Drainage Area Site Map. Document in the SWPCP the following areas of the facility and indicate whether activities occurring there may be exposed to precipitation/surface runoff: aircraft and runway deicing operations; fueling stations; aircraft, ground vehicle and equipment maintenance/cleaning areas; storage areas for aircraft, ground vehicles and equipment awaiting maintenance.
- E.S.2.2 Potential Pollutant Sources. In your inventory of exposed materials, describe in your SWPCP the potential for the following activities and facility areas to contribute pollutants to stormwater discharges: aircraft, runway, ground vehicle and equipment maintenance and cleaning; aircraft and runway deicing operations (including apron and centralized aircraft deicing stations, runways, taxiways and ramps). If you use deicing chemicals, you must maintain a record of the types (including the Material Safety Data Sheets [MSDS]) used and the monthly quantities, either as measured or, in the absence of metering, as estimated to the best of your knowledge. This includes all deicing chemicals, not just glycols and urea (e.g., potassium acetate), because large quantities of these other chemicals can still have an adverse impact on receiving waters. Tenants or other fixed-based operations that conduct deicing operations must provide the above information to the airport authority for inclusion with any comprehensive airport SWPCPs.
- E.S.2.3 Vehicle and Equipment Washwater Requirements. Attach to or reference in your SWPCP, a copy of the NPDES permit issued for vehicle/equipment washwater or, if an NPDES permit has not been issued, a copy of the pending application. If an industrial user permit is issued under a local pretreatment program, include a copy in your SWPCP. In any case, if you are subject to another permit, describe your control measures for implementing all non-stormwater discharge permit conditions or pretreatment requirements in your SWPCP. If washwater is handled in another manner (e.g., hauled offsite, retained onsite), describe the disposal method and attach all pertinent documentation/information (e.g., frequency, volume, destination, etc.) in your SWPCP.
- E.S.2.4 Documentation of Control Measures Used for Management of Runoff: Document in your SWPCP the control measures used for collecting or containing contaminated melt water from collection areas used for disposal of contaminated snow.

E.S.3 Sector-Specific Benchmarks.

Table E.S-1 identifies benchmarks that apply to the specific subsectors of Sector S. These benchmarks apply to both your primary industrial activity and any co-located industrial activities, unless a facility has an Individual NPDES Permit for de-icing activities.

Table E.S-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Where a single permittee, or a combination of permitted facilities, use more than 100,000 gallons of glycol-based deicing chemicals and/or 100 tons or more of urea on an average annual basis, monitor these parameters in outfalls that collect runoff from areas where deicing activities occur (SIC 4512-4581) and when deicing activities are occurring.	Biochemical Oxygen Demand (BOD ₅)	30 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Ammonia	2.14 mg/L
	pH	5.5 - 9.0 s.u.

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart T – Sector T – Treatment Works.

E.T.1 Additional Technology-Based Effluent Limits.

- E.T.1.1 Control Measures. In addition to the other control measures, consider the following: routing stormwater to the treatment works; or covering exposed materials (i.e., from the following areas: grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; and septage or hauled waste receiving station).
- E.T.1.2 Employee Training. At a minimum, training must address the following areas when applicable to a facility: petroleum product management; process chemical management; spill prevention and controls; fueling procedures; general good housekeeping practices; and proper procedures for using fertilizer, herbicides, and pesticides.

E.T.2 Additional SWPCP Requirements.

- E.T.2.1 Site Map. Document in your SWPCP where any of the following may be exposed to precipitation or surface runoff: grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; septage or hauled waste receiving station; and storage areas for process chemicals, petroleum products, solvents, fertilizers, herbicides, and pesticides.
- E.T.2.2 Potential Pollutant Sources. Document in your SWPCP the following additional sources and activities that have potential pollutants associated with them, as applicable: grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; septage or hauled waste receiving station; and access roads and rail lines.

E.T.3 Additional Inspection Requirements.

Include the following areas in all inspections: access roads and rail lines; grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; and septage or hauled waste receiving station.

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart U – Sector U – Food and Kindred Products.

E.U.1 Additional Technology-Based Limitations.

E.U.1.1 Employee Training. Address pest control in your employee training program.

E.U.2 Additional SWPCP Requirements.

E.U.2.1 Drainage Area Site Map. Document in your SWPCP the locations of the following activities if they are exposed to precipitation or runoff: vents and stacks from cooking, drying, and similar operations; dry product vacuum transfer lines; animal holding pens; spoiled product; and broken product container storage areas.

E.U.2.2 Potential Pollutant Sources. Document in your SWPCP, in addition to food and kindred products processing-related industrial activities, application and storage of pest control chemicals (e.g., rodenticides, insecticides, fungicides) used on plant grounds.

E.U.3 Additional Inspection Requirements.

Inspect on a monthly basis, at a minimum, the following areas where the potential for exposure to stormwater exists: loading and unloading areas for all significant materials; storage areas, including associated containment areas; waste management units; vents and stacks emanating from industrial activities; spoiled product and broken product container holding areas; animal holding pens; staging areas; and air pollution control equipment.

E.U.4 Sector-Specific Benchmarks.

Table E.U-1 identifies benchmarks that apply to the specific subsectors of Sector U. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

Table E.U-1.

Subsector (You may be subject to requirements for more than one Sector / Subsector)	Parameter	Benchmark Monitoring Concentration
Fats and Oils Products (SIC 2074-2079)	Biochemical Oxygen Demand (BOD ₅)	30 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Nitrate plus Nitrite Nitrogen	0.68 mg/L

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart V – Sector V – Textile Mills, Apparel, and Other Fabric Products.

E.V.1 Additional Technology-Based Limitations.

E.V.1.1 Good Housekeeping Measures.

- E.V.1.1.1 **Material Storage Areas.** Plainly label and store all containerized materials (e.g., fuels, petroleum products, solvents, and dyes) in a protected area, away from drains. Minimize contamination of the stormwater runoff from such storage areas. Also consider an inventory control plan to prevent excessive purchasing of potentially hazardous substances. For storing empty chemical drums or containers, ensure that the drums and containers are clean (consider triple-rinsing) and that there is no contact of residuals with precipitation or runoff. Collect and dispose of washwater from these cleanings properly.
 - E.V.1.1.2 **Material Handling Areas.** Minimize contamination of stormwater runoff from material handling operations and areas. Consider the following (or their equivalents): use of spill and overflow protection; covering fueling areas; and covering or enclosing areas where the transfer of material may occur. When applicable, address the replacement or repair of leaking connections, valves, transfer lines, and pipes that may carry chemicals, dyes, or wastewater.
 - E.V.1.1.3 **Fueling Areas.** Minimize contamination of stormwater runoff from fueling areas. Consider the following (or their equivalents): covering the fueling area, using spill and overflow protection, minimizing run-on of stormwater to the fueling areas, using dry cleanup methods, and treating and/or recycling stormwater runoff collected from the fueling area.
 - E.V.1.1.4 **Above-Ground Storage Tank Area.** Minimize contamination of the stormwater runoff from above-ground storage tank areas, including the associated piping and valves. Consider the following (or their equivalents): regular cleanup of these areas; including measures for tanks, piping and valves explicitly in your SPCC program; minimizing runoff of stormwater from adjacent areas; restricting access to the area; inserting filters in adjacent catch basins; providing absorbent booms in unbermed fueling areas; using dry cleanup methods; and permanently sealing drains within critical areas that may discharge to a storm drain.
- E.V.1.2 **Employee Training.** As part of your employee training program, address, at a minimum, the following activities (as applicable): use of reused and recycled waters, solvents management, proper disposal of dyes, proper disposal of petroleum products and spent lubricants, spill prevention and control, fueling procedures, and general good housekeeping practices.

E.V.2 Additional SWPCP Requirements.

- E.V.2.1 **Potential Pollutant Sources.** Document in your SWPCP the following additional sources and activities that have potential pollutants associated with them: industry-specific significant materials and industrial activities (e.g., backwinding, beaming, bleaching, backing bonding, carbonizing, carding, cut and sew operations, desizing, drawing, dyeing locking, fulling, knitting, mercerizing, opening, packing, plying, scouring, slashing, spinning, synthetic-felt

processing, textile waste processing, tufting, turning, weaving, web forming, winging, yarn spinning, and yarn texturing).

E.V.2.2 Description of Good Housekeeping Measures for Material Storage Areas. Document in the SWPCP your containment area or enclosure for materials stored outdoors.

E.V.3 Additional Inspection Requirements.

Inspect, at least monthly, the following activities and areas (at a minimum): transfer and transmission lines, spill prevention, good housekeeping practices, management of process waste products, and all structural and nonstructural management practices.

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart X – Sector X – Printing and Publishing.

E.X.1 Additional Technology-Based Effluent Limits.

E.X.1.1 Good Housekeeping Measures.

- E.X.1.1.1 Material Storage Areas. Plainly label and store all containerized materials (e.g., skids, pallets, solvents, bulk inks, hazardous waste, empty drums, portable and mobile containers of plant debris, wood crates, steel racks, and fuel oil) in a protected area, away from drains. Minimize contamination of the stormwater runoff from such storage areas. Also consider an inventory control plan to prevent excessive purchasing of potentially hazardous substances.
 - E.X.1.1.2 Material Handling Area. Minimize contamination of stormwater runoff from material handling operations and areas (e.g., blanket wash, mixing solvents, loading and unloading materials). Consider the following (or their equivalents): using spill and overflow protection, covering fueling areas, and covering or enclosing areas where the transfer of materials may occur. When applicable, address the replacement or repair of leaking connections, valves, transfer lines, and pipes that may carry chemicals or wastewater.
 - E.X.1.1.3 Fueling Areas. Minimize contamination of stormwater runoff from fueling areas. Consider the following (or their equivalents): covering the fueling area, using spill and overflow protection, minimizing runoff of stormwater to the fueling areas, using dry cleanup methods, and treating and/or recycling stormwater runoff collected from the fueling area.
 - E.X.1.1.4 Above Ground Storage Tank Area. Minimize contamination of the stormwater runoff from above-ground storage tank areas, including the associated piping and valves. Consider the following (or their equivalents): regularly cleaning these areas, explicitly addressing tanks, piping and valves in the SPCC program, minimizing stormwater runoff from adjacent areas, restricting access to the area, inserting filters in adjacent catch basins, providing absorbent booms in unbermed fueling areas, using dry cleanup methods, and permanently sealing drains within critical areas that may discharge to a storm drain.
- E.X.1.2 Employee Training. As part of your employee training program, address, at a minimum, the following activities (as applicable): spent solvent management, spill prevention and control, used oil management, fueling procedures, and general good housekeeping practices.

E.X.2 Additional SWPCP Requirements.

- E.X.2.1 Description of Good Housekeeping Measures for Material Storage Areas. In connection with Schedule E.X.1.1.1, describe in the SWPCP the containment area or enclosure for materials stored outdoors.

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart Y – Sector Y – Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries.

E.Y.1 Additional Technology-Based Effluent Limits.

E.Y.1.1 Controls for Rubber Manufacturers. Minimize the discharge of zinc in your stormwater discharges. Following are some general control measure options to consider: using chemicals purchased in pre-weighed, sealed polyethylene bags; storing in-use materials in sealable containers, ensuring an airspace between the container and the cover to minimize “puffing” losses when the container is opened, and using automatic dispensing and weighing equipment.

E.Y.1.1.1 Zinc Bags. Ensure proper handling and storage of zinc bags at your facility. Following are some control measure options: employee training on the handling and storage of zinc bags, indoor storage of zinc bags, cleanup of zinc spills without washing the zinc into the storm drain, and the use of 2,500-pound sacks of zinc rather than 50- to 100-pound sacks.

E.Y.1.1.2 Dumpsters. Minimize discharges of zinc from dumpsters. Following are some control measure options: covering the dumpster, moving the dumpster indoors, or providing a lining for the dumpster.

E.Y.1.1.3 Dust Collectors and Baghouses. Minimize contributions of zinc to stormwater from dust collectors and baghouses. Replace or repair, as appropriate, improperly operating dust collectors and baghouses.

E.Y.1.1.4 Grinding Operations. Minimize contamination of stormwater as a result of dust generation from rubber grinding operations. One control measure option is to install a dust collection system.

E.Y.1.1.5 Zinc Stearate Coating Operations. Minimize the potential for stormwater contamination from drips and spills of zinc stearate slurry that may be released to the storm drain. One control measure option is to use alternative compounds to zinc stearate.

E.Y.1.2 Controls for Plastic Products Manufacturers. Minimize the discharge of plastic resin pellets in your stormwater discharges. Control measures to be considered for implementation (or their equivalents) include minimizing spills, cleaning up of spills promptly and thoroughly, sweeping thoroughly, pellet capturing, employee education, and disposal precautions.

E.Y.2 Additional SWPCP Requirements.

E.Y.2.1 Potential Pollutant Sources for Rubber Manufacturers. Document in your SWPCP the use of zinc at your facility and the possible pathways through which zinc may be discharged in stormwater runoff.

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart Z – Sector Z – Leather Tanning and Finishing.

E.Z.1 Additional Technology-Based Effluent Limits.

E.Z.1.1 Good Housekeeping Measures.

- E.Z.1.1.1 Storage Areas for Raw, Semiprocessed, or Finished Tannery By-products. Minimize contamination of stormwater runoff from pallets and bales of raw, semiprocessed, or finished tannery by-products (e.g., splits, trimmings, shavings). Consider indoor storage or protection with polyethylene wrapping, tarpaulins, roofed storage, etc. Consider placing materials on an impermeable surface and enclosing or putting berms (or equivalent measures) around the area to prevent stormwater run-on and runoff.
- E.Z.1.1.2 Material Storage Areas. Label storage containers of all materials (e.g., specific chemicals, hazardous materials, spent solvents, waste materials) minimize contact of such materials with stormwater.
- E.Z.1.1.3 Buffing and Shaving Areas. Minimize contamination of stormwater runoff with leather dust from buffing and shaving areas. Consider dust collection enclosures, preventive inspection and maintenance programs, or other appropriate preventive measures.
- E.Z.1.1.4 Receiving, Unloading, and Storage Areas. Minimize contamination of stormwater runoff from receiving, unloading, and storage areas. If these areas are exposed, consider the following (or their equivalents): covering all hides and chemical supplies, diverting drainage to the process sewer, or grade berming or curbing the area to prevent stormwater runoff.
- E.Z.1.1.5 Outdoor Storage of Contaminated Equipment. Minimize contact of stormwater with contaminated equipment. Consider the following (or their equivalents): covering equipment, diverting drainage to the process sewer, and cleaning thoroughly prior to storage.
- E.Z.1.1.6 Waste Management. Minimize contamination of stormwater runoff from waste storage areas. Consider the following (or their equivalents): covering dumpsters, moving waste management activities indoors, covering waste piles with temporary covering material such as tarpaulins or polyethylene, and minimizing stormwater runoff by enclosing the area or building berms around the area.

E.Z.2 Additional SWPCP Requirements.

- E.Z.2.1 Drainage Area Site Map. Identify in your SWPCP where any of the following may be exposed to precipitation or surface runoff: processing and storage areas of the beamhouse, tanyard, and re-tan wet finishing and dry finishing operations.
- E.Z.2.2 Potential Pollutant Sources. Document in your SWPCP the following sources and activities that have potential pollutants associated with them (as appropriate): temporary or permanent storage of fresh and brine-cured hides; extraneous hide substances and hair; leather dust, scraps, trimmings, and shavings.

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart AA – Sector AA – Fabricated Metal Products

E.AA.1 Additional Technology-Based Effluent Limits.

E.AA.1.1 Good Housekeeping Measures.

E.AA.1.1.1 Raw Steel Handling Storage. Minimize the generation of and/or recover and properly manage scrap metals, fines, and iron dust. Include measures for containing materials within storage handling areas.

E.AA.1.1.2 Paints and Painting Equipment. Minimize exposure of paint and painting equipment to stormwater.

E.AA.1.2 Spill Prevention and Response Procedures. Ensure that the necessary equipment to implement a cleanup is available to personnel. The following areas should be addressed

E.AA.1.2.1 Metal Fabricating Areas. Maintain clean, dry, orderly conditions in these areas. Consider using dry clean-up techniques.

E.AA.1.2.2 Storage Areas for Raw Metal. Keep these areas free of conditions that could cause, or impede appropriate and timely response to, spills or leakage of materials. Consider the following (or their equivalents): maintaining storage areas so that there is easy access in the event of a spill, and labeling stored materials to aid in identifying spill contents.

E.AA.2.2.3 Metal Working Fluid Storage Areas. Minimize the potential for stormwater contamination from storage areas for metal working fluids.

E.AA.1.2.4 Cleaners and Rinse Water. Control and clean up spills of solvents and other liquid cleaners, control sand buildup and disbursement from sand-blasting operations, and prevent exposure of recyclable wastes. Substitute environmentally benign cleaners when possible.

E.AA.1.2.5 Lubricating Oil and Hydraulic Fluid Operations. Minimize the potential for stormwater contamination from lubricating oil and hydraulic fluid operations. Consider using monitoring equipment or other devices to detect and control leaks and overflows. Consider installing perimeter controls such as dikes, curbs, grass filter strips, or equivalent measures.

E.AA.1.2.6 Chemical Storage Areas. Minimize stormwater contamination and accidental spillage in chemical storage areas. Include a program to inspect containers and identify proper disposal methods.

E.AA.1.3 Spills and Leaks. In your spill prevention and response procedures, pay attention to the following materials (at a minimum): chromium, toluene, pickle liquor, sulfuric acid, zinc and other water priority chemicals, and hazardous chemicals and wastes.

E.AA.2 Additional SWPCP Requirements.

E.AA.2.1 Drainage Area Site Map. Document in your SWPCP where any of the following may be exposed to precipitation or surface runoff: raw metal storage areas; finished metal storage areas;

scrap disposal collection sites; equipment storage areas; retention and detention basins; temporary and permanent diversion dikes or berms; right-of-way or perimeter diversion devices; sediment traps and barriers; processing areas, including outside painting areas; wood preparation; recycling; and raw material storage.

E.AA.2.2 Potential Pollutant Sources. Document in your SWPCP the following additional sources and activities that have potential pollutants associated with them: loading and unloading operations for paints, chemicals, and raw materials; outdoor storage activities for raw materials, paints, empty containers, corn cobs, chemicals, and scrap metals; outdoor manufacturing or processing activities such as grinding, cutting, degreasing, buffing, and brazing; onsite waste disposal practices for spent solvents, sludge, pickling baths, shavings, ingot pieces, and refuse and waste piles.

E.AA.3 Additional Inspection Requirements.

E.AA.3.1 Inspections. At a minimum, include the following areas in all inspections: raw metal storage areas, finished product storage areas, material and chemical storage areas, recycling areas, loading and unloading areas, equipment storage areas, paint areas, and vehicle fueling and maintenance areas. Also inspect areas associated with the storage of raw metals, spent solvents and chemicals storage areas, outdoor paint areas, and drainage from roof. Potential pollutants include chromium, zinc, lubricating oil, solvents, aluminum, oil and grease, methyl ethyl ketone, steel, and related materials.

E.AA.4 Sector-Specific Benchmarks.

Table E.AA-1 identifies benchmarks that apply to the specific subsectors of Sector AA. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

Table E.AA-1

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Fabricated Metal Products, except Coating (SIC 3411-3499; 3911-3915)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L
	Nitrate plus Nitrite Nitrogen	0.68 mg/L
Fabricated Metal Coating and Engraving (SIC 3479)	Nitrate plus Nitrite Nitrogen	0.68 mg/L

SCHEDULE F NPDES GENERAL CONDITIONS

SECTION A. STANDARD CONDITIONS

1. Duty to Comply

The permit registrant must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Oregon Revised Statutes (ORS) 468B.025, the Clean Water Act and 40 Code of Federal Regulations (CFR) §122.41(a), and is grounds for enforcement action; for permit termination, revocation and/or reissuance, or modification; or for denial of a permit renewal application.

2. Penalties for Water Pollution and Permit Condition Violations

ORS 468.140 allows the Director to impose civil penalties up to \$25,000 per day for violation of a term, condition, or requirement of a permit. ORS 468.943 creates the criminal offense of unlawful water pollution in the second degree, for the criminally negligent violation of ORS chapter 468B or any rule, standard, license, permit or order adopted or issued under ORS chapter 468B. Unlawful water pollution in the second degree is punishable by a fine of up to \$25,000 or imprisonment for not more than one year, or both. In addition, OAR 468.946, creates the offense of unlawful water pollution of the first degree, which is a Class B felony.

3. Duty to Mitigate

The permit registrant must take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit. In addition, upon request of the department, the permit registrant must correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.

4. Duty to Reapply

If the permit registrant wishes to continue an activity regulated by this permit after the expiration date of this permit, the permit registrant must apply for and have the permit registration renewed. The application must be submitted at least 180 days before the expiration date of this permit. The department may grant written permission to submit an application less than 180 days in advance but no later than the permit expiration date.

5. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

- a. Violation of any term, condition, or requirement of this permit, a rule, or a statute
- b. Failure to pay fees when they are due
- c. Obtaining this permit by misrepresentation or failure to disclose fully all material facts
- d. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge
- e. The permit registrant is identified as a Designated Management Agency or allocated a wasteload under a Total Maximum Daily Load (TMDL)
- f. New information or regulations
- g. Modification of compliance schedules
- h. Requirements of permit re-opener conditions
- i. Correction of technical mistakes made in determining permit conditions
- j. Determination that the permitted activity endangers human health or the environment
- k. Other causes as specified in 40 CFR §§122.62, 122.64, and 124.5

DEQ will give permit registrant notice of the right to a contested case hearing in the event DEQ issues a Notice of Revocation, Suspension or Refusal to Renew the permit.

The filing of a request by the permit registrant for a permit modification, revocation or reissuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. Toxic Pollutants

The permit registrant must comply with any applicable effluent standards or prohibitions established under Oregon Administrative Rules (OAR) 340-041-0033 for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

7. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege, nor does it authorize any injury to persons of property or invasion of any other private rights, nor any infringement of federal, tribal, state, or local laws or regulations.

8. Permit References

Except for effluent standards or prohibitions established under Section 307(a) of the Clean Water Act and OAR 340-041-0033 for toxic pollutants, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

9. Permit Fees

The permit registrant must pay the fees required by OAR 340-045-0070 to 0075.

The permit registrant must pay annual compliance fees by the last day of the month prior to when the permit was issued. For example, if the permit was issued or last renewed in April, the due date will be March 31st. If the payment of annual fees is 30 days or more past due, the permit registrant must pay 9% interest per annum on the unpaid balance. Interest will accrue until the fees are paid in full. If DEQ does not receive payment of annual fees when they are due, DEQ will refer the account to the Department of Revenue or to a private collection agency for collection.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permit registrant must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permit registrant to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls, and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permit registrant only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Duty to Halt or Reduce Activity

For industrial or commercial facilities, upon reduction, loss, or failure of the treatment facility, the permit registrant must, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It is not a defense for a permit registrant in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Bypass of Treatment Facilities

a. Definitions

- (1) "Bypass" means intentional diversion of waste streams from any portion of the treatment facility. The term "bypass" does not include nonuse of singular or multiple units or processes of a treatment works when the nonuse is insignificant to the quality or quantity of the effluent produced by the treatment works. The term "bypass" does not apply if the diversion does not cause effluent limitations to be exceeded, provided the diversion is to allow essential maintenance to assure efficient operation.
- (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities or treatment processes which causes 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. Severe property damage does not mean economic loss caused by delays in production.

b. Prohibition of bypass.

- (1) Bypass is prohibited unless:
 - (a) Bypass was necessary to prevent loss of life, personal injury, or severe property damage;
 - (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate

backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and

(c) The permit registrant submitted notices and requests as required under General Condition B.3.c.

(2) The Director may approve an anticipated bypass, after considering its adverse effects and any alternatives to bypassing, when the Director determines that it will meet the three conditions listed above in General Condition B.3.b.(1).

c. Notice and request for bypass.

(1) Anticipated bypass. If the permit registrant knows in advance of the need for a bypass, it must submit prior written notice, if possible at least ten days before the date of the bypass.

(2) Unanticipated bypass. The permit registrant must submit notice of an unanticipated bypass as required in General Condition D.5.

4. Upset

a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permit registrant. An upset does not include noncompliance to the extent caused by operation error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of General Condition B.4.c are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permit registrant 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 permit registrant can identify the causes(s) of the upset;

(2) The permitted facility was at the time being properly operated;

(3) The permit registrant submitted notice of the upset as required in General Condition D.5, hereof (24-hour notice); and

(4) The permit registrant complied with any remedial measures required under General Condition A.3 hereof.

d. Burden of proof. In any enforcement proceeding the permit registrant seeking to establish the occurrence of an upset has the burden of proof.

5. Treatment of Single Operational Event

For purposes of this permit, A Single Operational Event which leads to simultaneous violations of more than one pollutant parameter must be treated as a single violation. A single operational event is an exceptional incident which causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one Clean Water Act effluent discharge pollutant parameter. A single operational event does not include Clean Water Act violations involving discharge without a NPDES permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities. Each day of a single operational event is a violation.

6. Overflows from Wastewater Conveyance Systems and Associated Pump Stations

a. Definitions

(1) "Overflow" means the diversion and discharge of waste streams from any portion of the wastewater conveyance system including pump stations, through a designed overflow device or structure, other than discharges to the wastewater treatment facility.

(2) "Severe property damage" means substantial physical damage to property, damage to the conveyance system or pump station which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of an overflow.

(3) "Uncontrolled overflow" means the diversion of waste streams other than through a designed overflow device or structure, for example to overflowing manholes or overflowing into residences, commercial establishments, or industries that may be connected to a conveyance system.

b. Prohibition of overflows. Overflows are prohibited unless:

- (1) Overflows were unavoidable to prevent an uncontrolled overflow, loss of life, personal injury, or severe property damage;
 - (2) There were no feasible alternatives to the overflows, such as the use of auxiliary pumping or conveyance systems, or maximization of conveyance system storage; and
 - (3) The overflows are the result of an upset as defined in General Condition B.4. and meeting all requirements of this condition.
- c. Uncontrolled overflows are prohibited where wastewater is likely to escape or be carried into the waters of the State by any means.
- d. Reporting required. Unless otherwise specified in writing by the Department, all overflows and uncontrolled overflows must be reported orally to the Department within 24 hours from the time the permit registrant becomes aware of the overflow. Reporting procedures are described in more detail in General Condition D.5.
7. Public Notification of Effluent Violation or Overflow
If effluent limitations specified in this permit are exceeded or an overflow occurs, upon request by the Department, the permit registrant must take such steps as are necessary to alert the public about the extent and nature of the discharge. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.
8. Removed Substances
Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must be disposed of in such a manner as to prevent any pollutant from such materials from entering public waters, causing nuisance conditions, or creating a public health hazard.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling
Sampling and measurements taken as required herein must be representative of the volume and nature of the monitored discharge. All samples must be taken at the monitoring points specified in this permit and must be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points must not be changed without notification to and the approval of the Director.
2. Flow Measurements
Appropriate flow measurement devices and methods consistent with accepted scientific practices must be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices must be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected must be capable of measuring flows with a maximum deviation of less than ± 10 percent from true discharge rates throughout the range of expected discharge volumes.
3. Monitoring Procedures
Monitoring must be conducted according to test procedures approved under 40 CFR §136, unless other test procedures have been specified in this permit.
4. Penalties of 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 years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person, punishment is a fine not more than \$20,000 per day of violation, or by imprisonment of not more than four years or both.
5. Reporting of Monitoring Results
Monitoring results must be summarized each month on a Discharge Monitoring Report form approved by the Department. The reports must be submitted monthly and are to be mailed, delivered or otherwise transmitted by the 15th day of the following month unless specifically approved otherwise in Schedule B of this permit.

6. Additional Monitoring by the Permit registrant
If the permit registrant monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR §136 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency must also be indicated. For a pollutant parameter that may be sampled more than once per day (e.g., Total Chlorine Residual), only the average daily value must be recorded unless otherwise specified in this permit.
7. Averaging of Measurements
Calculations for all limitations which require averaging of measurements must utilize an arithmetic mean, except for bacteria which must be averaged as specified in this permit.
8. Retention of Records
Except for records of monitoring information required by this permit related to the permit registrant's sewage sludge use and disposal activities, which must be retained for a period of at least five years (or longer as required by 40 CFR §503), the permit registrant must retain records of all monitoring information, including all calibration and maintenance records of all original strip chart 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, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.
9. Records Contents
Records of monitoring information must include:
 - a. The date, exact place, time and methods of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
10. Inspection and Entry
The permit registrant must allow the Director, or an authorized representative upon the presentation of credentials to:
 - a. Enter upon the permit registrant's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and
 - d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

SECTION D. REPORTING REQUIREMENTS

1. Planned Changes
The permit registrant must comply with Oregon Administrative Rules (OAR) 340, Division 052, "Review of Plans and Specifications". Except where exempted under OAR 340-052, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers must be commenced until the plans and specifications are submitted to and approved by the Department. The permit registrant must give notice to the Department as soon as possible of any planned physical alternations or additions to the permitted facility.
2. Anticipated Noncompliance
The permit registrant must give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
3. Transfers
This permit may be transferred to a new permit registrant provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and the rules of the Commission. No permit

must be transferred to a third party without prior written approval from the Director. The permit registrant must notify the Department when a transfer of property interest takes place.

4. Compliance Schedule

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 14 days following each schedule date. Any reports of noncompliance must include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

5. Twenty-Four Hour Reporting

The permit registrant must report any noncompliance which may endanger health or the environment. Any information must be provided orally (by telephone) within 24 hours, unless otherwise specified in this permit, from the time the permit registrant becomes aware of the circumstances. During normal business hours, the Department's Regional office must be called. Outside of normal business hours, the Department must be contacted at 1-800-452-0311 (Oregon Emergency Response System).

A written submission must also be provided within 5 days of the time the permit registrant becomes aware of the circumstances. If the permit registrant is establishing an affirmative defense of upset or bypass to any offense under ORS 468.922 to 468.946, and in which case if the original reporting notice was oral, delivered written notice must be made to the Department or other agency with regulatory jurisdiction within 4 (four) calendar days. The written submission must contain:

- a. A description of the noncompliance and its cause;
- b. The period of noncompliance, including exact dates and times;
- c. The estimated time noncompliance is expected to continue if it has not been corrected;
- d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and
- e. Public notification steps taken, pursuant to General Condition B.7.

The following must be included as information which must be reported within 24 hours under this paragraph:

- a. Any unanticipated bypass which exceeds any effluent limitation in this permit.
- b. Any upset which exceeds any effluent limitation in this permit.
- c. Violation of maximum daily discharge limitation for any of the pollutants listed by the Director in this permit.

The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

6. Other Noncompliance

The permit registrant must report all instances of noncompliance not reported under General Condition D.4 or D.5, at the time monitoring reports are submitted. The reports must contain:

- a. A description of the noncompliance and its cause;
- b. The period of noncompliance, including exact dates and times;
- c. The estimated time noncompliance is expected to continue if it has not been corrected; and
- d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. Duty to Provide Information

The permit registrant must furnish to the Department, within a reasonable time, any information which the Department may request to determine compliance with this permit. The permit registrant must also furnish to the Department, upon request, copies of records required to be kept by this permit.

Other Information: When the permit registrant becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Department, it must promptly submit such facts or information.

8. Signatory Requirements

All applications, reports or information submitted to the Department must be signed and certified in accordance with 40 CFR §122.22.

9. Falsification of Reports

Under ORS 468.953, any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, is subject to a Class C felony punishable by a fine not to exceed \$100,000 per violation and up to 5 years in prison.

SECTION E. DEFINITIONS

1. BOD means five-day biochemical oxygen demand.
2. TSS means total suspended solids.
3. mg/l means milligrams per liter.
4. kg means kilograms.
5. m³/d means cubic meters per day.
6. MGD means million gallons per day.
7. Composite sample means a sample formed by collecting and mixing discrete samples taken periodically and based on time or flow.
8. FC means fecal coliform bacteria.
9. Technology based permit effluent limitations means technology-based treatment requirements as defined in 40 CFR §125.3, and concentration and mass load effluent limitations that are based on minimum design criteria specified in OAR 340-041.
10. CBOD means five day carbonaceous biochemical oxygen demand.
11. Grab sample means an individual discrete sample collected over a period of time not to exceed 15 minutes.
12. Quarter means January through March, April through June, July through September, or October through December.
13. Month means calendar month.
14. Week means a calendar week of Sunday through Saturday.
15. Total residual chlorine means combined chlorine forms plus free residual chlorine.
16. The term "bacteria" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and E. coli bacteria.
17. POTW means a publicly owned treatment works.

APPENDIX B

National Pollutant Discharge Elimination System 1200-Z Industrial Stormwater General Permit Renewal Application Form

DEQ USE ONLY

Application #: _____
 File #: _____
 EPA #: _____
 LLID/RM: _____
 DOC Conf: _____
 Notes: _____

**RENEWAL APPLICATION
 NPDES STORMWATER DISCHARGE GENERAL
 PERMIT #1200-Z**



Oregon Department of Environmental Quality

DEQ USE ONLY

Received: _____

A. REFERENCE INFORMATION

1. Legal Name: Riverbend Landfill Company, Inc.	2. Common Name: Riverbend Landfill
3. DEQ File #: 106959	4. Is the applicant the owner of the facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5. County: Yamhill County	6. Facility Physical Address: 13469 SW Highway 18 City, State, Zip Code: McMinnville, Oregon 97128
7. Facility Primary SIC code: 4953	8. Facility Secondary SIC code(s):
9. Legal Contact: Paul Burns	Telephone #: 503.472.8788 Email: pburns@wm.com
Mailing Address: 13469 SW Highway 18	City, State, Zip Code: McMinnville, Oregon 97128
10. Facility Contact: Jeff O'Leary	Telephone #: 503.472.8788 Email: joleary@wm.com
Mailing Address: 13469 SW Highway 18	City, State, Zip Code: McMinnville, Oregon 97128
11. Invoice to: Same as Legal Contact	Telephone #: _____ Email: _____
Billing Address:	City, State, Zip Code: _____

B. STORMWATER DISCHARGE INFORMATION

12. Receiving waterbody: List the name(s) of the water(s) that receive stormwater from your facility

Direct Discharge: Creek/Stream:

Indirect Discharge through a Municipal Storm Sewer or Drainage System (MS4), ditch or other manmade conveyance system

Receiving stream: **SOUTH YAMHILL RIVER**

C. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE

I hereby certify that the information contained in this application is true and correct to the best of my knowledge and belief. In addition, I agree to pay all permit fees required by Oregon Administrative Rules 340-45.

Paul Burns	District Manager
Name of Legally Authorized Representative (Type or Print)	Title
	29 MAR 2012
Signature of Legally Authorized Representative	Date

**Please answer all questions. An incomplete application will not be processed.
If the information requested is not applicable, please indicate as such.**

A. REFERENCE INFORMATION:

1. Enter the legal name of the applicant. This must be the **legal** Oregon name (i.e., Acme Products, Inc.) or the **legal** representative of the company if it operates under an assumed business name (i.e., John Smith, dba Acme Products). The name must be a legal, active name registered with the Oregon Department of Commerce, Corporation Division (503) 378-4752, unless otherwise exempted by their regulations. The permit will be issued to the legal name of the applicant.

If the legal name of the applicant has changed since the previous permit was issued or the permit needs to be transferred to a new owner, a *Name Change/Transfer of Ownership* form must also be submitted with this application. This form is available by contacting a DEQ regional office listed below or on DEQ's website, located at <http://www.deq.state.or.us/wq/wqpermit/docs/forms/terminationazcols.pdf>.

2. Enter the common name of the facility or operation if different than the legal name.
3. Enter the DEQ file number (this number may be found on the first page of your permit).
4. Indicate if the applicant is the owner of the facility.
5. Indicate County of facility.
6. Enter the physical location of the facility (not mailing address), including city, state, and zip code.
7. Provide the primary Standard Industrial Classification (SIC) code that best describes the primary industrial activities performed by your facility under which you are required to obtain permit coverage. Your primary industrial activity includes any activities performed on-site which are (1) identified by the facility's one SIC code for which the facility is primarily engaged; and (2) included in the narrative descriptions of 40 CFR 122.26(b)(14)(i), (iv), (v), or (vii), and (ix). See *Table 1: Sources Covered* on page 3 of the permit for a complete list of SIC codes and industrial activities.
8. If your site has secondary industrial activities (i.e., co-located activities) that are not identified as your primary industrial activity, provide the SIC code(s) that describe these other industrial activities. You are only required to provide SIC code(s) for industrial activities on site that are listed in *Table 1: Sources Covered* on page 3 of the permit.
9. Enter the name, telephone number, and mailing address of the Legal Contact. The Legal Contact is the person that receives official correspondence from DEQ, such as renewal notices or notices of noncompliance, and may be contacted if there are questions about this application.
10. Enter the name, telephone number and mailing address of the Facility Contact if different from the Legal Contact. The Facility Contact is the person located at the facility that has specific knowledge of the facility or operation under permit (e.g., the treatment plant operator), and may be contacted if there are specific questions about this application.
11. Enter invoicing information for billing purposes if different from the Legal Contact (e.g., "Invoice To: Business Office - Accounts Payable").

B. STORM WATER DISCHARGE INFORMATION:

12. Indicate the name(s) of the receiving water(s) that industrial stormwater from your facility will discharge to. Your receiving water may be a lake, stream, river, wetland or other waterbody, and may or may not be located adjacent to your facility. Your stormwater may discharge directly to the receiving water or indirectly via a storm sewer system, an open drain or ditch, or other conveyance structure. Do NOT list a man-made conveyance, such as a storm sewer system, as your receiving water. Indicate the **first natural receiving water** your stormwater discharge enters. For example, if your discharge enters a storm sewer system, that empties into Trout Creek, which flows into Pine River, your receiving water is Trout Creek, because it is the first natural waterbody your discharge will reach. Similarly, a discharge into a ditch that feeds Spring Creek should be identified as "Spring Creek" since the ditch is a manmade conveyance. If you discharge into a municipal separate storm sewer system (MS4), you must identify the waterbody into which that portion of the storm sewer discharges. That information should be readily available from the operator of the MS4.

C. SIGNATURE OF LEGALLY AUTHORIZED REPRESENTATIVE:

A legally authorized representative must sign the application. The following are authorized to sign the document:

- ◆ **Corporation** — President, secretary, treasurer, vice-president, or any person who performs principal business functions; or a manager of one or more facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million that is authorized in accordance to corporate procedure to sign such documents
- ◆ **Partnership** — General partner *[list of general partners, their addresses and telephone numbers]*
- ◆ **Sole Proprietorship** — Owner(s) *[each owner must sign the application]*
- ◆ **City, County, State, Federal, or other Public Facility** — Principal executive officer or ranking elected official
- ◆ **Limited Liability Company** — Member
- ◆ **Trusts** — Acting trustee *[list of trustees, their addresses and telephone numbers]*

APPLICATION SUBMITTAL:

The following application materials must be completed and submitted by **March 31, 2012** to the DEQ regional office below: **Signed Application Form; Stormwater Pollution Control Plan (SWPCP), and SWPCP Checklist.**

No fees are required with this application.

DEQ Regional Offices		
DEQ Northwest Region 2020 SW 4 th Ave., Suite 400 Portland, OR 97201-4987 (503) 229-5263 or 1-800-452-4011	DEQ Western Region 165 East 7 th Avenue, Ste. 100 Eugene, OR 97401-3049 (541)-687-7326 or 1-800-844-8467	DEQ Eastern Region 700 SE Emigrant, Suite 330 Pendleton, OR 97801 (541) 276-4063 or 1-800-452-4011

NORTHWEST REGION (county)		WESTERN REGION (county)			
Clackamas	Multnomah	Benton	Douglas	Lane	Marion
Clatsop	Tillamook	Coos	Jackson	Lincoln	Polk
Columbia	Washington	Curry	Josephine	Linn	Yamhill

EASTERN REGION (county)					
Baker	Gilliam	Hood River	Lake	Sherman	Wallowa
Crook	Grant	Jefferson	Malheur	Umatilla	Wasco
Deschutes	Harney	Klamath	Morrow	Union	Wheeler

APPENDIX C

Stormwater Pollution Control Plan Certification

Appendix C
Stormwater Pollution Control Plan 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 qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



James L. Denson, Jr.
PNW/BC Environmental Protection Manager
Riverbend Landfill Company

I am familiar with the provisions of the National Pollutant Discharge Elimination System 1200-Z Industrial Stormwater General Permit and with the stormwater management and industrial activities at the Riverbend Landfill. To the best of my knowledge the information contained in this stormwater pollution control plan is true and accurate. The material and data contained in this report were prepared under the supervision and direction of the undersigned.



Jason Davendonis
Senior Project Professional
SCS Engineers



Louis Caruso
Vice President/Project Director
SCS Engineers

APPENDIX D

Annual Non-Stormwater Discharge Inspection Form

Annual Non-Stormwater Discharge Inspection Form

Facility:	Riverbend Landfill
Date of Inspection:	
Inspection Completed by (print):	
Signature:	
Performed the annual non-stormwater discharge inspection at the site outfalls after seven (7) consecutive days without precipitation (Yes or No)? If no, then what is the date of the last recorded precipitation at the site?	
Was there non-stormwater discharge observed at any of the site outfalls (Yes or No)? If yes, list the outfall name and describe discharge observations including the presence of oily sheen, floating solids, color, odor, foam, and approximate flow rate.	
If non-stormwater discharge was observed at a site outfall location, could the source of the discharge be located at the facility (Yes or No)? If yes, describe the source of the non-stormwater discharge.	
Is the source of the non-stormwater discharge authorized or unauthorized by the Permit (Yes or No)? A list of the Permit authorized non-stormwater discharges are provided in Page 2 of this form.	
If the non-stormwater discharge is unauthorized, then the discharge must be eliminated. Was the discharge eliminated (Yes or No)? If yes, then explain how and when it was eliminated.	
If the non-stormwater discharge is unauthorized, then the DEQ must be notified of the discharge. Was the DEQ notified (Yes or No)? If yes, then on what date was the DEQ notified?	
Comments:	

Annual Non-Stormwater Discharge Inspection Form

(Excerpt from Page 9 of the NPDES 1200-Z Permit)

Authorized Non-Stormwater Discharges

a. Subject to the terms and conditions of the permit, the following non-stormwater discharges are authorized:

- i. Discharges from fire-fighting activities.
- ii. Fire hydrant flushing.
- iii. Potable water, including water line flushing.
- iv. Uncontaminated condensate from air conditioners, coolers and other compressors, and from outside storage of refrigerated gases and liquids.
- v. Irrigation drainage.
- vi. Landscape watering, provided that all pesticides, herbicides, and fertilizer have been applied in accordance with manufacturer's instructions.
- vii. Pavement wash waters where no detergents or hot water are used, no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed), and surfaces are swept before washing.
- viii. Vehicle washing that does not use detergents or hot water unless the 1700-A NPDES permit is required for the discharge.
- ix. Routine external building wash down that does not use detergents or hot water.
- x. Uncontaminated ground water or spring water.
- xi. Foundation or footing drains where flows are not contaminated with process materials.
- xii. Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but not intentional discharges from the cooling tower (e.g., "piped" cooling tower blow down or drains).

b. Piping and drainage systems for interior floor drains and process wastewater discharge points must be separated from the storm drainage system to prevent inadvertent discharge of pollutants to waters of the state, unless the process wastewater discharge is authorized by another NPDES permit that allows commingled outfalls. Discharge from floor drains to the stormwater drainage system is a violation of this permit.

c. Any other wastewater discharge or disposal, including stormwater mixed with wastewater, must be permitted in a separate permit, unless the wastewater is reused or recycled without discharge or disposal, or discharged to the sanitary sewer with approval from the sanitary sewer system operator.

APPENDIX E

Stormwater Pollution Control Plan Annual Employee Training Record Form

Annual Employee Training Record Form
Stormwater Pollution Control Plan

Description of Training

1. Review of best management practices (BMPs) and control measures.
2. Review spill prevention and response procedures.
3. Review good housekeeping measures to prevent potential pollution of stormwater.
4. Review of routine inspection and monitoring requirements.
5. Review reporting and record keeping requirements.

Instructor _____ Date _____

Employee Names

<u>Printed Name</u>	<u>Signature</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Note: Stormwater Pollution Control Plan training records may be maintained in the Stormwater Pollution Control Plan files or in the site training files.

APPENDIX F

Stormwater Pollution Control Plan Monthly Inspection Report Form

Riverbend Landfill Monthly Inspection Report Form

Page 1 of 3

Date and Time:		Completed by:		
Weather Conditions		Title		
Area Inspected	Inspection Procedure		Notes, Required Maintenance, and Corrective Actions	Date/Time Corrective Actions Completed
Outfall 1C (Sampling Point 1C)	Monitor for the presence of stormwater discharge during a storm event. Is stormwater discharging (Yes or No)? (Note: The visual monitoring for stormwater discharge should be performed during regular business hours and under safe conditions.)		Yes or No (circle one)	Not Applicable
Outfall 1C (Sampling Point 1C)	If stormwater is discharging, note whether visible oil sheen, floating solids (associated with industrial activities), foam, and discoloration is observed. If these pollutants are observed, describe the corrective action(s) performed or will be performed to resolve the issue. Note the condition of and around Outfall 1C.			
Outfall 2 (Sampling Point 2)	Monitor for the presence of stormwater discharge during a storm event. Is stormwater discharging (Yes or No)? (Note: The visual monitoring for stormwater discharge should be performed during regular business hours and under safe conditions.)		Yes or No (circle one)	Not Applicable
Outfall 2 (Sampling Point 2)	If stormwater is discharging, note whether visible oil sheen, floating solids (associated with industrial activities), foam, and discoloration is observed. If these pollutants are observed, describe the corrective action(s) performed or will be performed to resolve the issue. Note the condition of and around Outfall 2.			
Outfall 4 (Sampling Point 4)	Monitor for the presence of stormwater discharge during a storm event. Is stormwater discharging (Yes or No)? (Note: The visual monitoring for stormwater discharge should be performed during regular business hours and under safe conditions.)		Yes or No (circle one)	Not Applicable
Outfall 4 (Sampling Point 4)	If stormwater is discharging, note whether visible oil sheen, floating solids (associated with industrial activities), foam, and discoloration is observed. If these pollutants are observed, describe the corrective action(s) performed or will be performed to resolve the issue. Note the condition of and around Outfall 4.			

Riverbend Landfill Monthly Inspection Report Form

Page 2 of 3

Area Inspected	Inspection Procedure	Notes, Required Maintenance, and Corrective Actions	Date/Time Corrective Actions Completed
Outfall 6 (Sampling Point 6)	Monitor for the presence of stormwater discharge during a storm event. Is stormwater discharging (Yes or No)? (Note: The visual monitoring for stormwater discharge should be performed during regular business hours and under safe conditions.)	Yes or No (circle one)	Not Applicable
Outfall 6 (Sampling Point 6)	If stormwater is discharging, note whether visible oil sheen, floating solids (associated with industrial activities), foam, and discoloration is observed. If these pollutants are observed, describe the corrective action(s) performed or will be performed to resolve the issue. Note the condition of and around Outfall 6.		
Maintenance Areas	Inspect the maintenance areas (maintenance buildings and areas on the lined landfill areas) for evidence of, or the potential for, pollutants (materials, residue, and waste) to enter the stormwater drainage system. Check that routine housekeeping activities are performed properly.		
Vehicles and Equipment (Parking and Storage)	Inspect the site vehicles and equipment parking and storage areas for leaks/drips. Leaks/drips from parked vehicles and equipment must be cleaned up regularly. Use drip pans or buckets to contain the drips or leaks until the problem is fixed.		
Significant Material Storage Areas	Inspect containers (tanks and drums) for leaks and/or damage. Any leak or damage must be fixed. Ensure that the materials stored in a manner to prevent spills. Review the secondary containment and confirm that it is adequate. Confirm that the containers labeled properly.		
Fueling Areas	Inspect the fueling tanks and the tank valves, piping and joints for leaks. Check for spills and visual contamination. Ensure that proper fueling and housekeeping activities are being performed.		
Erosion	Check for erosion that may be forming on vegetated or bare slopes of the inactive and active landfill areas (daily, intermediate, and final cover). Check for erosion in the soil borrow area or around soil stock piles. Use erosion and sediment control measures such as re-seeding, mulching, or silt fences, if erosion is observed.		
Active Landfill Operations	Inspect active areas of the landfill that have not been stabilized and are exposed to stormwater including where hauling trucks enter and exit the site. Inspect and ensure that sediment and structural control measures and the leachate management system are operating properly.		

Riverbend Landfill Monthly Inspection Report Form

Page 3 of 3

Area Inspected	Inspection Procedure	Notes, Required Maintenance, and Corrective Actions	Date/Time Corrective Actions Completed
Contaminated Stormwater	Inspect drainage areas for contaminated stormwater (i.e., leachate outside of the leachate management system). Is contaminated stormwater observed (Yes or No)? If Yes, follow procedures listed in Figure 3-2 of the SWPCP (Flow Chart).	Yes or No (circle one)	
Drainage Pipes, Ditches, and Catch Basins	Check the drainage ditches, pipes and catch basins for sediment accumulation, debris, and other potential pollutants. Remove potential pollutants (e.g., sediment) if observed. Use additional control measures such as sediment controls, oil booms, if needed.		
Vehicle and Equipment Wash Area	Inspect the wash pad area to determine if wash water, sediment, and potential wastes are contained. Check to ensure that the wash water discharge drain is free of sediment and debris.		
Litter and Garbage	Check that stormwater drainage system is not impacted by tracking of waste, litter or garbage. Clean up any waste, litter or garbage observed.		
Spill Kits	Check that spill kits are located within the maintenance building, outdoor fueling area, and landfill gas-to-energy facility and are completely stocked.		
Additional Comments or Observations:			

APPENDIX G

Oregon Department of Environmental Quality Spill Report Form



SPILL/RELEASE REPORT

1 - GENERAL INFORMATION

OERS No. _____

- a. Company/Individual Name: _____
- b. Address: _____

- c. Company Contact Person: _____
- d. Phone Number(s): _____
- e. Specific on-site location of the release (and address if different from above):

Please provide a map of the site showing area(s) where the release occurred, any sample collection locations, location of roads/ditches/surface water bodies, etc.

2 - RELEASE INFORMATION

- a. Date/Time Release started: _____ Date/Time stopped: _____
- b. Release was reported to (specify Date/Time/Name of Person contacted where applicable):
 - ODEQ _____
 - OERS _____
 - NRC _____
 - Other (describe): _____
- c. Person(s) reporting release: _____
- d. Name, quantity and physical state (gas, liquid, solid or semi-solid) of material(s) released:

Please attach copies of material safety data sheets (MSDS) for released material(s).

- e. The release affected: ___Air ___Groundwater ___Surface Water ___Soil ___Sediment
- f. Name and distance to nearest surface water body(s), even if unaffected (include locations of creeks, streams, rivers and ditches that discharge to surface water on maps):

Has the release reached the surface water identified above?: ___Yes ___No
 Could the release potentially reach the surface water identified above? ___Yes ___No

Explain: _____

- g. Depth to nearest aquifer/groundwater: _____
 Is nearest aquifer/groundwater potable (drinkable)? ___Yes ___No
 Has the release reached the nearest aquifer/groundwater? ___Yes ___No
 Explain: _____

4 - CLEANUP INFORMATION

a. Was site cleanup performed? Yes No

If No, explain: _____

b. Who performed the site cleanup?

Company Name: _____

Address: _____

Cleanup Supervisor: _____

Phone Number(s): _____

c. Has all contamination been removed from the site? Yes No

If No, explain: _____

d. Estimated volume of contaminated soil removed: _____

e. Estimated volume of contaminated soil left in place: _____

f. Was a hazardous waste determination made for cleanup materials? Yes No

g. Based on the determination, are the cleanup materials hazardous wastes?
 Yes No If Yes, list all waste codes: _____

h. Was contaminated soil or water disposed of at an off-site location? Yes No

If yes, attach copies of receipts/manifests/etc., and provide the following information:

Facility Name: _____

Address: _____

Facility Contact: _____

Phone Number(s): _____

i. Is contaminated soil or water being stored and/or treated on-site? Yes No

If yes, please describe the material(s), storage and/or treatment area, and methods utilized (attach additional sheets if necessary):

j. Describe cleanup activities including what actions were taken, dates and times actions were initiated and completed, volumes of contaminated materials that were removed, etc. (attach additional sheets or contractor reports if necessary or more convenient):

APPENDIX H

Stormwater Pollution Control Plan Weekly Inspection Report Form

Riverbend Landfill Weekly Inspection Report Form

Page 1 of 1

Date and Time:		Completed by:		
Weather Conditions		Title		
Area Inspected	Inspection Procedure	Notes, Required Maintenance, and Corrective Actions	Date/Time Corrective Actions Completed	
Site Entrance and Access Road	Inspect for off-site tracking of industrial or waste materials and sediment from waste hauling vehicles. Clean up any potential pollutants, if observed.			
Active and Inactive Landfill Areas	Inspect active and inactive areas of the landfill that have not been stabilized and are exposed to stormwater. Erosion may be forming on slopes of the inactive and active landfill areas (daily, intermediate, and final cover) that are not stabilized. Inspect and ensure that sediment and structural control measures are operating properly.			
Waste and Material Storage Areas	Inspect containers that are exposed to stormwater for leaks and/or damage. Any leak or damage must be fixed. Ensure that the materials stored in a manner to prevent spills. Review the secondary containment and confirm that it is adequate. Confirm that the containers labeled properly. Inspect the containers for evidence of tracking of potential pollutants and clean up pollutants, if observed.			
Leachate Management System	Inspect and ensure that the leachate management systems are operating properly.			
Contaminated Stormwater	Inspect drainage areas for contaminated stormwater (i.e., leachate outside of the leachate management system). Is contaminated stormwater observed (Yes or No)? If Yes, follow procedures listed in Figure 3-2 of the SWPCP (Flow Chart).	Yes or No (circle one)		
Additional Comments or Observations:				

APPENDIX I

Tier II Corrective Action Response for *E. coli* at Outfall 2

TIER II CORRECTIVE ACTION RESPONSE FOR *E. COLI* AT OUTFALL 2 (MARCH 2012)

1. BACKGROUND

As noted in Section 6.2 of the SWPCP, the geometric mean of the *E. coli* concentrations of the stormwater samples collected at Sampling Point 2 (Outfall 2) exceeded the benchmark concentration of 406 counts during the fourth year (between July 1, 2010 and June 30, 2011) of Riverbend Landfill's (RL's) NPDES 1200-Z permit, which expired in June 2012. As a consequence of the exceedance, the Riverbend Landfill Company (RLC) is required to submit this Tier II Corrective Action Response (CAR) with the goal of achieving the benchmark concentrations in future discharges. The CAR must include additional treatment measures, which may include source control measures or treatment measures alone, or some combination of source control and treatment measures.

2. DISCUSSION

The RL Sampling Point 2 (Outfall 2) is the stormwater discharge location for the site's Drainage Area 2. This drainage area includes:

- Approximately 11 acres of landfill that has been closed with a vegetated impermeable final cover;
- A portion of the landfill covered with permeable intermediate cover and/or landfilled materials covered with impermeable temporary geomembrane covers;
- An access road, located above the final cover, which provides customer access to the active disposal area.

Run off from Drainage Area 2 is conveyed through a combination of ditches and pipes to the west end of Stormwater Detention Pond 1. This pond is approximately 500-feet long, is heavily vegetated and provides beneficial habitat for multiple species of wildlife. Sampling Point 2 is located near the east end of the pond, and stormwater must flow through the pond and vegetation before being discharged.

3. PROPOSED TREATMENT MEASURES

RL is located adjacent to the South Yamhill River and tributary creeks and drainages, and the general area provides habitat for birds and mammals. In this regard, all the components of Drainage Area 2 have the potential to introduce *E. coli* from external sources. For example:

- Fecal matter deposited on the temporary geomembrane covers will readily wash off during precipitation; and
- Fecal matter deposited on the approximately 11-acres of vegetated final cover will interact with stormwater flow over the final cover.

Additionally, Stormwater Detention Pond 1 itself provides a final opportunity for additional fecal matter to be introduced by birds and mammals to the stormwater before it discharges at Sampling Point 2.

These potential sources of *E. coli* are unrelated to the landfill activities, and an argument could be made for eliminating *E. coli* monitoring from this drainage area. However, initially it is proposed to collect stormwater samples for *E. coli* analysis from the location where stormwater enters Stormwater Detention Pond 1 at the west end of the pond (i.e., before it flows through the pond and has the potential to interact with additional sources of *E. coli*). Sampling Point 2 will continue to be used to collect samples for the analysis of the other monitored parameters since residence in the pond and interaction with the vegetation may be beneficial relative to these other parameters.

This proposed source control measure will eliminate the potential for the introduction of *E. coli* from external sources into stormwater after it has left the footprint of Drainage Basin 2.

4. CERTIFICATION

This CAR was prepared by Roger B North, a licensed professional engineer in the state of Oregon.

