Water & Environmental TECHNOLOGIES

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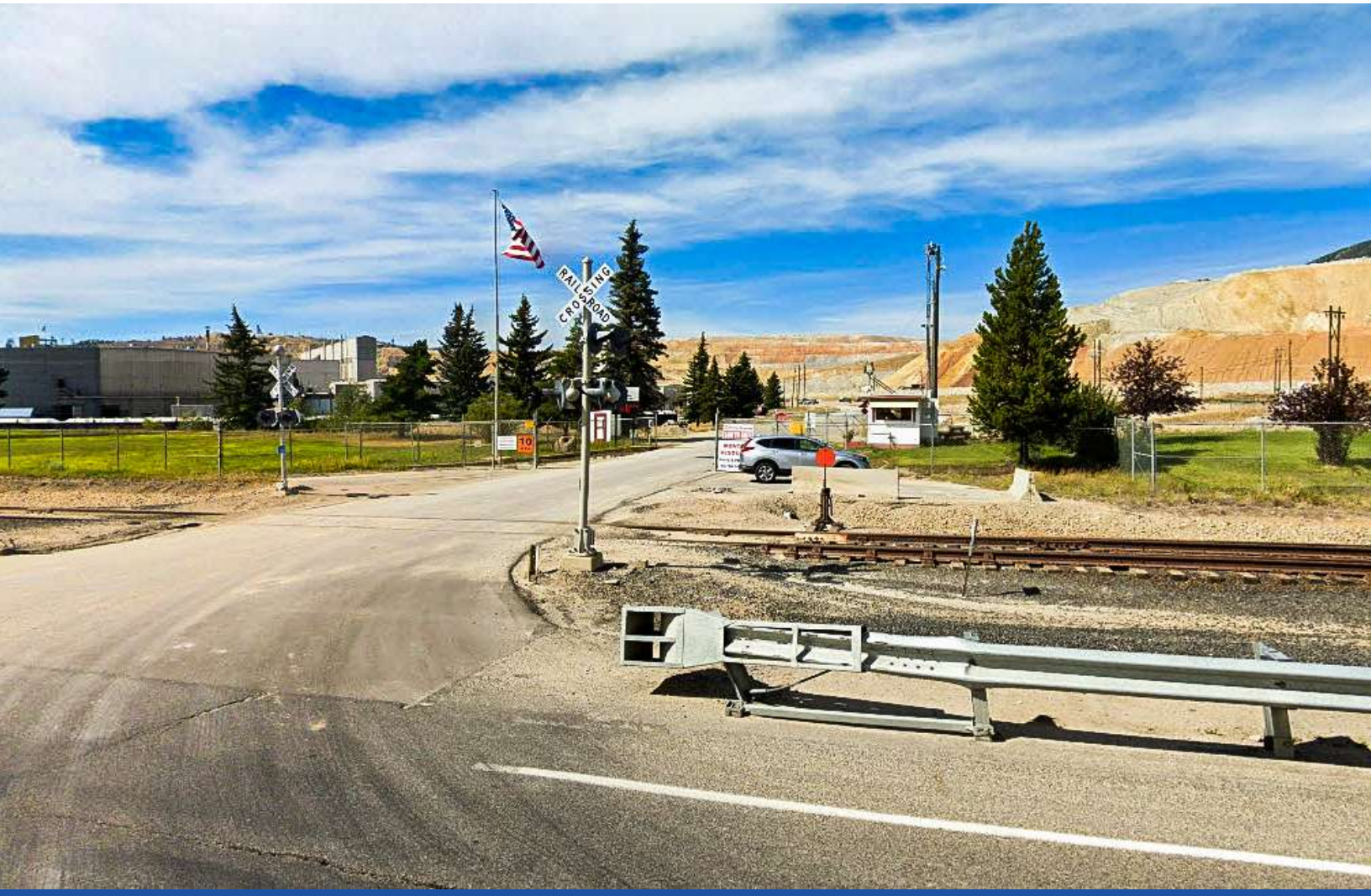

Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity

Butte, Montana

Prepared for:

Montana Resources, LLC

600 Shields Avenue
Butte, Montana 59701

March 2023

Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity

Montana Resources, LLC (MR)
Stormwater Pollution Prevention Plan

Prepared for:

Montana Department of Environmental Quality
Water Protection Bureau
Permitting & Compliance Division
P.O. Box 200901
Helena, MONTANA 59620-0901

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600 Shields Ave.
Butte, MONTANA 59701

Prepared by:

Water & Environmental Technologies, PC
480 East Park Street, Suite 200
Butte, MONTANA 59701

March 2023

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1.0 COVERAGE UNDER THIS PERMIT

Montana Resources, LLC (MR) is requesting to be covered under the *Multi-Sector General Permit (MSGP) for Stormwater Discharges Associated with Industrial Activity* #MTR0761*,* which is administered by the Montana Department of Environmental Quality (MDEQ). This SWPPP was prepared to comply with the requirement of the MSGD for the February 1, 2023 to January 31, 2028 permit term.

2.0 EFFLUENT LIMITATIONS AND MONITORING AND REPORTING REQUIREMENTS

All Part 2 requirements are addressed under Part 3 Special Conditions.

3.0 SPECIAL CONDITIONS

3.1 Stormwater Pollution Prevention Plan (SWPPP)— General Requirements

3.1.1 SWPPP Preparation

Water and Environmental Technologies, on behalf of MR, has prepared a Stormwater Pollution Prevention Plan (SWPPP).

The purpose of the SWPPP is to identify sources of potential pollution to stormwater discharges and to select Best Management Practices (BMPs) to reduce discharge of pollutants. As required, the SWPPP has been prepared using good engineering practices. A link to the *Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity MTR000000* is included in **Attachment A**.

3.1.2 SWPPP Administrator

The MR Environmental Manager (EM), duly appointed representative, will serve as the SWPPP Administrator. Specific tasks include implementation, operation, maintenance of BMPs, site inspections, records retention, and responses during emergency situations, as outlined in MSGP Section 3.1.2. The MR EM will serve as the team lead for communication and delegating any changes or repairs needed to maintain compliance with the SWPPP. Communication will be in the form of email and telephone calls.

3.1.3 Stormwater Pollution Prevention Team

MR personnel will serve as the Stormwater Pollution Prevention Team Members and will assist with SWPPP implementation; specifically, BMP installation and maintenance, site inspections, and assistance during emergency situations. The SWPPP Team Members, in addition to the EM at MR, will be certain Operations Foremen and Maintenance Supervisors as assigned. These individuals will notify the SWPPP Team lead of any spills, potential spills, or repairs that may be needed. A copy of the SWPPP Pollution Prevention Team organization chart is include in **Attachment G.**

3.1.4 Site Description

MR is located partially within the Butte-Silver Bow Urban Limits Boundary in Butte, and within their Hard Rock permit boundary of 6,136-acres in size (**Figure 1a through Figure 2b**). Activities at this active open pit mine include hauling, crushing, and milling operations; ore and overburden material storage and management; dredged material, tailings slurry, and process wastewater storage, pumping, and management; ore concentration, primary froth flotation, and secondary precipitation metal extraction; and discharge under the United State Environmental Protection Agency Consent Decree for the Butte Mine Flooding Operable Unit (BMFOU). This mine typically operates 24-hours per day, throughout the year.

The mine is a long-standing open pit mining operation located in urban/rural setting on the east side of Butte and west of the East Ridge Mountains in Silver Bow County, Montana. MR is located within 3 miles of a major transportation route interchange of Interstate 90 and Interstate 15. To the south of MR is Silver Bow Creek (former Metro Sewer Drain). Outfall 001, the only potential stormwater outfall, is located south of the site south of the Continental Roadside Channel (CRC). The CRC was constructed to convey a 25-year, 24-hour Type I Soil Conservation Service storm event with objectives of mitigating sediment loading into existing stormwater infrastructure and its possible release into Silver Bow Creek, mitigate soil erosion, and comply with Unilateral Administration Order directives (MDEQ Letter Notifying MR of Required Permit Coverage, 2022).

The annual precipitation is approximately 12.7 inches, and the most active months in terms of precipitation are April, May, and June. The annual average high temperature is 53.3 degrees F and the annual average low temperature is 27.0 degrees F.

3.1.4.1 Outfalls

Precipitation contacts the pervious surfaces present at the mine and either percolates into the subsurface or follows flow paths for incorporation, treatment, storage or one outfall. (**Figure 3**). The outfall details are as follows:

Outfall 001 is in the south of the site at Continental Roadside Channel latitude: 46.00495°N and longitude: -112.51036°W. This outfall potentially discharges into Silver Bow Creek (former Metro Sewer Drain) which is located to the south of the site.

3.1.4.2 Receiving Waters

Silver Bow Creek is the ultimate receiving water of potential stormwater discharge from the mine. Drainages 1 and 2 (**Figure 5**) potentially drain to Silver Bow Creek.

Silver Bow Creek is approximately 29.2 miles in length and is in the Upper Clark Fork portion of the Pend Oreille watershed of the Columbia Basin. Silver Bow Creek is an I Class stream with an unassigned status and no beneficial

uses.

Future BPSOU (Butte Primary Soils Operable Unit) treatment along the receiving water and surrounding watersheds due to the ongoing remedial efforts in the superfund area that have been set in place by the BPSOU Consent Decree will continue to provide treatment for the historic mine-impacted areas. A potential discharge from MR, although unanticipated, would not contribute to a continual impact of this receiving water.

3.1.4.3 Stormwater Run-on

Drainages upstream of the YDTI drain directly into MR's permitted mining boundary. Drainages along the east side of the permit area drain westward into rock disposal sites, the Continental Pit, YDTI or the Clearwater Ditch. The Clearwater Ditch begins on the west side of Interstate-15 and extends along the east and south sides of the project site. It collects runoff from reclaimed rock disposal sites located along the east side of the permit area and the Hillcrest dump to the south, transporting it to a collection pond near the Butte Concentrator where it is incorporated for make-up water needs. (MR Operations Plan, 2021). Precipitation within the permit boundary either drains to the Berkeley Pit or is captured and incorporated as process water. The mine is also surrounded by native vegetation that acts as a vegetative buffer for stormwater run-on. (**Figure 3**).

Previous studies have illustrated that MR is effectively managing a significant volume of stormwater that would otherwise have to be managed by Butte-Silver Bow and Atlantic Richfield (Pit Drainage Monitoring, 2016; Ecology Pond at Montana Resources Tech Memo, Rampart, 2019).

3.1.4.4 Delineation

The MR permit area was delineated into 16 drainage areas using topographic conditions as shown on **Figure 5.**

3.1.5 Site Maps

The site location maps are included as **Figure 1a** Permit Area (USGS), **Figure 1b** Site Location (USGS), **Figure 2a** Permit Area (Aerial), and **Figure 2b** Site Location (Aerial). The outfall, runoff flow arrows, and receiving waters are shown on **Figure 3**. The BMPs are shown on **Figure 4**. The delineation of watershed boundaries is shown on **Figure 5.**

3.1.6 Areas with Potential Pollutant Sources

3.1.6.1 Activities in the identified area

The activities (i.e., hauling, crushing, and milling operations; ore and overburden material storage and management; dredged material, tailings slurry, and process wastewater storage, pumping, and management; ore concentration, primary froth flotation, and secondary precipitation metal

extraction; and discharge from the BMFOU) and the potential for exposure to stormwater are as follows:

Continental Pit Mine—This area is exposed to precipitation and is located on the southeast side of the property. Activities here include blasting, shoveling, loading, and hauling of ore and overburden. All precipitation in this area flows are within the mine permitted area and is either infiltrated, evaporated, or captured for incorporation as process water.

Mill and Concentrator Facility—This area serves as the processing facility of ore from the Continental Pit. Haul trucks unload the ore into piles where the ore is conveyed into the mill and ultimately the concentrator. Activities here include hauling, and unloading, crushing and milling operations, froth flotation, ore storage and ore concentration. All precipitation in this area is within the permitted area and is either infiltrated, evaporated, or captured for incorporation as process water.

Ore and Waste Rock – Ore and waste rock from the site is acid generating; however, all unreclaimed ore or waste rock overburden surfaces are directed to site facilities/structures (e.g., Continental Pit, Berkeley Pit, Horseshoe Bend Water Treatment Plant, and Yankee Doodle Tailings Impoundment) and do not pose off-site release potential.

Dredge Pond—This area operates in association with the concentrator facility and Clearwater Ditch and has a spillway to direct overflow to the Berkeley Pit. Activities here include pumping and management, dredged material, and process wastewater management. All precipitation in this area flows are within the mine permitted area and is either infiltrated, evaporated, or captured for incorporation as process water.

Yankee Doodle Tailings Impoundment (YDTI)—This area serves as storage of tailings produced from ore processing and process water. Tailings slurry is pumped to YDTI, and embankments are continuously constructed to comprise a valley-fill style impoundment area. Activities here include pumping and tailing slurry maintenance. All precipitation in this area flows are within the mine permitted area and is either infiltrated, evaporated, or captured for incorporation as process water.

Horseshoe Bend Area—This area serves as water storage and treatment facility. It receives Yankee Doodle seepage and drains to BMFOU water treatment. Activities include process wastewater storage, discharge, pumping, and management. All precipitation in this area flows are within the mine permitted area and is either infiltrated, evaporated, or captured for incorporation as process water.

Haul Roads—Through the entire site are haul/access roads. Pit haul roads are watered to reduce airborne dust on a routine basis. All precipitation in this area flows are within the mine permitted area and is either infiltrated, evaporated, or captured for incorporation as process water.

Maintenance Shop/Office and Vehicle Storage—Oil, grease, and lubricants used to maintain equipment (i.e., pumps, trucks, loaders) are stored onsite. Storage varies from retail packaging and small drums to bulk tanks. Totes of used oil/antifreeze may be stored outside prior to pick up for disposal. Maintenance is performed inside the maintenance shop, except in the case of maintenance on certain equipment (e.g., shovels) and vehicle breakdowns. All precipitation in this area flows are within the mine permitted area and is either infiltrated, evaporated, or captured for incorporation as process water.

Fueling Station—Gas and diesel fuel are stored outside in steel tanks set in containment or dual-wall fire-resistant tanks. Re-fueling and transferring of any liquids will be continuously monitored to minimize the potential for leaks or spills.

Ecology Pond—This area serves as the storage area for extreme precipitation runoff events to temporarily store water. The Ecology Pond has an overflow that reports to the mill should the pond become full. The pond was capped with a clay liner in 2013 and is bermed. Activities here include pumping and management. If the overflow from the Ecology Pond to the mill is overwhelmed due to the volume of precipitation the pond could report to Silver Bow Creek. This is the only area within the MR permit boundary that could potentially report to a water of the state. There has never been a recorded/observed discharge to Silver Bow Creek.

3.1.6.2 Pollutants associated with each industrial activity

The following pollutants detailed in Table 1 can be found at the MR site.

Table 1. MR Pollutants

AREAS OF ACTIVITY	TOTAL SUSPENDED SOLIDS (TSS)	TRASH & DEBRIS	METALS
Continental Pit Mine	✓	✓	✓
Mill & Concentrator Facility	✓	✓	✓
Ecology Pond	✓	✓	✓
Dredge Pond	✓	✓	✓
Yankee Doodle Tailings Impoundment	✓	✓	✓
Horseshoe Bend Area	✓	✓	✓
Haul Roads	✓	✓	✓
Maintenance Shop/Office and Vehicle Storage	✓	✓	
Fueling Station	✓	✓	

3.1.6.3 Previous spills and leaks in the identified area

Spills and leaks include, but are not limited to, releases of oil or hazardous substances in excess of quantities that are reportable under the Clean Water Act (see 40 CFR 110.6 and 40 CFR 117.21) or Section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 USC §9602. Since this facility is not reasonably expected to discharge oil in quantities that may be harmful into navigable waters or adjoining shorelines, the facility is not subject to SPCC rule. MR does have the Continental Mine Spill Plan in place in Appendix OP-D of their Continental Mine Operations plan.

In the event a spill or leak were to occur, a clean-up procedure for hydrocarbons and hazardous material is included in the Continental Mine Spill Plan. Additionally, the MDEQ Spill Management and Reporting Policy, along with the Continental Mine Spill Plan is included in **Attachment B**.

3.1.6.4 Non-Stormwater Discharges

MDEQ has evaluated the facility site every two years prior to and since 2017. No discharges have been recorded from Montana Pollutant Discharge Elimination System (MPDES) Permit MT0000191 outfall 004 since operations started in 1986. MR has requested termination of this permit to MDEQ due to no discharge since operations began and will now be covered under this MSGP.

3.1.6.5 Salt Storage Area (if applicable)

Salt is not stored on-site. Per MAQP #1749-14, rock salt is applied to MR haul

roads prior to winter and is typically distributed over a 2–4-day period for direct application.

3.1.7 Description of Control Measures (Best Management Practices)

The Ecology Pond is the only likely area within the MR permit boundary that could potentially report to a water of the state. Outfall 001, the only potential stormwater outfall, is located south of the site at Silver Bow Creek (adjacent to Texas Avenue. This location is currently utilized as a metropolitan stormwater conveyance structure prior to the confluence with Blacktail Creek further West. Since 1986 (i.e., MR operating) there has never been a recorded/observed discharge to Silver Bow Creek and the following BMPs are present in this area:

Ecology Pond—This pond serves as the storage area for extreme precipitation runoff events. The pond was capped with a clay liner in 2013 and is bermed with a volume capacity of 4.4 million gallons. It has been constructed to retain stormwater on-site and this area tends to accumulate little to no runoff and any water that does accumulate in the Ecology Pond is appropriately managed through incorporation into MR's mining operation (Ecology Pond at Montana Resource, 2019). In the event of an extreme rainfall event the Ecology Pond could potentially discharge to Outfall 001, the only potential stormwater outfall, which is located south of the site at Silver Bow Creek (adjacent to Texas Avenue). This location is currently utilized as a metropolitan stormwater conveyance structure prior to the confluence with Blacktail Creek further West. The rainfall event would have to be large enough to overload the Ecology Pond's conveyance to the Dredge Pond and the Dredge Pond's conveyance to Berkeley pit. Given the conveyance structures in place and the ability for water to be pumped and managed elsewhere onsite leads to the unlikelihood of a potential discharge and clarifies why historically no discharge has been observed.

Outfall protection—Rip rap drainage constructed on the south side of the CRC that leads into the Silver Bow Creek (adjacent to Texas Avenue).

Continental Roadside Channel (CRC)—The CRC was constructed to convey a 25-year, 24-hour Type I Soil Conservation Service storm event with objectives of mitigating sediment loading into existing stormwater infrastructure and its possible release into Silver Bow Creek; mitigate soil erosion; and comply with Unilateral Administration Order directives.

Vegetative Buffer—If the overflow from the Ecology Pond to the Dredge Pond and Berkeley pit is overwhelmed due to the volume of precipitation the pond would report to Silver Bow Creek. There is a vegetative buffer on the south side of the CRC along the site boundary.

Maintenance—Ecology Pond, Dredge Pond and other stormwater storage or conveyance features are all designed, connected, and maintained to provide functional conveyance of water on site. Conduit line connecting dewatering run-on

from the Parrot Tailings location is cleaned, and overflow features connecting Ecology Pond to Dredge Pond are available and maintained, overflow spillway connecting Dredge Pond to Berkeley Pit are available and maintained, as well as earthen berms along the southern boundary of the Ecology Pond are maintained.

3.1.8 Required Schedules and Procedures for Control Measures

The non-structural BMPs at MR include:

Good housekeeping—MR personnel are tasked with cleaning and maintaining the buildings and work areas.

Maintenance—Preventative maintenance is conducted on the industrial equipment per the manufacturer's recommendations. MR personnel are tasked with checking the equipment for leaks, spills, and other releases.

Spill Prevention and Response —The cleanup procedure is detailed in Section 3.1.6.3. and the Continental Mine Spill Plan is included in Attachment B.

Labeling—Labeling follows Mine Safety and Health Administration (MSHA) Hazardous communications standards and is present on all chemical storage containers.

3.1.9 Employee Training

At a minimum, personnel must be trained annually in the following if related to the scope of their job duties (e.g., only personnel responsible for conducting inspections need to understand how to conduct inspections):

1. An overview of what is in the SWPPP including the site map.
2. Spill response procedures, good housekeeping, maintenance requirements, and material management practices.
3. The location of all the controls on the site required by this permit, and how they are to be maintained.
4. The proper procedures to follow with respect to this permit's pollution prevention requirements.
5. When and how to conduct inspections, record applicable findings, and take corrective actions.

Training must cover both the specific control measures used to achieve the effluent limits in this Part as well monitoring, inspection, planning, reporting, and documentation requirements in other parts of this permit. Training documentation must include a description of the training, and employees in attendance.

Training attendance is documented and filed in the Audit Ready Binder.

3.1.10 Pertaining to Inspection Program – Visual Monitoring/Reporting

There are two types of self-inspections that must be performed as specified by this permit.

Routine Facility Inspections— Stormwater BMPs and current practices will be inspected at least quarterly. At least once during each calendar year, the routine facility inspection must be conducted during a period when a stormwater discharge is occurring as applicable since discharge to the designated Outfall 001 is not anticipated. The SWPPP Administrator must observe the stormwater runoff for evidence of color, odor, clarity, floating solids, settled solids, suspended solids, foam, or oil sheen.

Significant Storm Events Inspection—Stormwater BMPs and current practices will be inspected after significant storm (rainfall and snowmelt) events. The SWPPP Administrator must conduct an inspection within 72-hours of the end of the storm event. A "significant rainfall event" is a rainfall event over any 24-hour period which results in 0.5 inches or more of measured or otherwise documented rainfall. MR will use the weather data recorded at the Bert Mooney Airport by NOAA to determine the rainfall amount. A "significant snowmelt" event is thawing conditions above freezing which produce a visible runoff or drainage from snowmelt on the site where visible and discernible erosion of sediment is occurring at the site, or where temperatures remain above freezing for more than 24 hours. Within one calendar month, only two significant storm event inspections are required.

MR *Stormwater Site Inspection Form is* included in **Attachment C**.

Annual Report—An annual report must be completed and submitted to MDEQ for each calendar year of active coverage under this permit. This Annual Report must be completed using a standard MDEQ form to include:

1. A summary of the past year's routine facility inspections documentation.
2. A summary of the past year's significant storm event inspection documentation.
3. A summary of the past year's corrective actions performed.
4. A summary of any incidents of noncompliance observed.
5. A summary of the past year's benchmark monitoring results.
6. A summary of the past year's required revisions to the SWPPP.

The Annual Report for a given calendar year must be completed by February 1 of the year following that respective calendar year. The Annual Report must be certified and signed in accordance with Part 4.18 of this permit. A signed copy of the annual report will be retained on-site.

3.1.11 Pertaining to Benchmark Monitoring

Outfall 001 has potential to discharge into Silver Bow Creek (near Texas Avenue),

which has been assessed for impairments. The Benchmark Monitoring parameter for a Subsector G1, SIC code 1021, 1061 and 1044 industry, such as the MR site, is Total Suspended Solids (TSS), Nitrate plus Nitrite Nitrogen, and Chemical Oxygen Demand (COD). In the event of a precipitation or snowmelt event large enough to overcome the existing controls and discharge into Silver Bow Creek, the discharge would need to be sampled for the above constituents. All unreclaimed ore or waste rock overburden surfaces are directed to site facilities/structures (e.g., Continental Pit, Berkeley Pit, Horseshoe Bend Water Treatment Plant, and Yankee Doodle Tailings Impoundment) and do not pose off-site release potential and will not require any benchmark monitoring as outlined in 3.4.7.7.2 of this permit. See section 3.4.1.7 for a summary of parameter and benchmark monitoring concentrations.

3.1.12 Pertaining to Water Quality Controls for Discharges to Impaired Waterbodies

The MDEQ Clean Water Act Information Center (CWAIC) categorizes Silver Bow Creek into Use Class "I". The designation of Use Class "I" means that the water body is impaired. The water body has an unassigned status and no beneficial uses until the confluence of Blacktail Creek and Silver Bow Creek.

3.1.13 SWPPP Signature Requirements

The SWPPP must be signed and dated by the MR SWPPP Administrator.

3.2 SWPPP Modifications and Updates

A signed copy of the MDEQ SWPPP will be retained on-site in an audit ready binder. Modifications to the SWPPP will be documented on the SWPPP Modification Form included in **Attachment D**. The SWPPP document and maps will document site changes.

3.2.1 Corrective Actions

The SWPPP will be modified by the SWPPP Administrator and appropriate corrective actions will be implemented in accordance with the corrective action deadlines if any of the following conditions occur:

1. An unauthorized release or discharge (e.g., spill, leak, or discharge of non-stormwater not authorized by this or another MPDES permit) occurs at MR.
2. The MR SWPPP Administrator becomes aware, or the MDEQ determines, that the control measures are not stringent enough for the discharge to meet applicable water quality standards.
3. The MR SWPPP Administrator or SWPPP Team Member finds in the routine facility inspection or significant storm event inspection that the

control measures were never installed, were installed incorrectly, or are not being properly operated and maintained.

4. An inspection or evaluation of the facility by a MDEQ representative determines that modifications to the control measures are necessary to meet the effluent limits in this permit.
5. Whenever a visual assessment shows evidence of stormwater pollution.

3.2.2 Correction Schedule

The discovery of any of these five conditions will be documented by the permittee within 24 hours. Corrective actions in response to the condition will be documented within 14 days of the discovery. If it is determined that changes are necessary, BMP modifications will be implemented before the next storm event, or as soon as practicable following that storm event.

If construction or a change in design, operation, or maintenance occurs at MR which changes the potential pollutants, the need for installation of additional BMPs will be evaluated.

If it is infeasible to complete repairs, the SWPPP Administrator must document why the correction is infeasible and outline the corrective action that must be completed within 45 days of discovery.

3.3 SWPPP Availability

A complete copy of the current SWPPP will be retained at the MR site in the Audit Ready Binder and will be immediately available to the MDEQ, or an authorized representative at the time of an onsite inspection.

3.4 Industrial Sector Specific Requirement

3.4.1 Sector J: Mineral Mining and Dressing

3.4.1.1 Covered Stormwater Discharges

Since MR is an active Metal Mining operation (Ore Mining and Dressing), all stormwater discharges (except for what is listed in MSGP MTR00000 **Section 3.4.10.2**) from this site are covered under this permit. Future BPSOU treatment along the receiving water and surrounding watersheds due to the ongoing remedial efforts in the superfund area that have been set in place by the BPSOU Consent Decree will continue to provide treatment for the historic mine-impacted areas. A potential discharge from MR, although unanticipated, would not contribute to a continual impact of this receiving water.

3.4.1.2 Limitations on Coverage

No limitations on coverage.

3.4.1.3 Definitions

As per *Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity*–Appendix A, MR falls under Subsector G1 and G2, SIC Code 1021, 1061 and 1044 industry Mineral Mining and Dressing-Active Phase. The activity represented is,

> "*Activities including the extraction, removal, or recovery of minerals. 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 acres" found at 40 CFR 440.132(a). The active phase is considered part of "mining operations."*

3.4.1.4 Additional Technology-Based Effluent Limits

3.4.1.4.1 Employee Training

Addressed in Section 3.1.9

3.4.1.4.2 Stormwater Controls

Stormwater controls mentioned in **Section 3.1.7** are believed to be sufficient to minimize pollutant discharges. Stormwater diversions and transport to other areas of the MR site for incorporation are included in the controls. Capping is not believed to be necessary. Treatment will occur in any non-stormwater discharges before the water is released. The potential stormwater discharge will not be combined with any other discharges.

3.4.1.5 Additional SWPPP Requirements

3.4.1.5.1 Nature of Industrial Activities

Addressed in section 3.1.4

3.4.1.5.2 Site Map

Addressed in section 3.1.5

3.4.1.5.3 Potential Pollutant Sources

Addressed in section 3.1.6

3.4.1.5.4 Stormwater Controls

Figure 4 shows the location and nature of the control measures used at MR for stormwater pollution prevention.

3.4.1.5.5 Employee Training

Addressed in Section 3.1.9

3.4.1.5.6 Certification of Permit Coverage for Commingled Non-Stormwater Discharges

There are no commingled, non-stormwater discharges at MR. Precipitation that falls within the permit boundaries except for the drainage area associated with the Ecology Pond either reports to the Berkeley Pit or is captured and incorporated into process water at the Dredge Pond without discharging.

3.4.1.6 Additional Inspection Requirements.

MR site has the potential to discharge to Silver Bow Creek, which has been assessed for impairments. The BMP's and outfalls at MR will be inspected by the SWPPP Administrator quarterly, and once per year during a storm event. During these inspections the SWPPP Administrator will note the integrity of the BMPs and outfalls and will follow up with any repairs that may be needed.

3.4.1.7 Sector Specific Benchmarks

3.4.1.7.1 Benchmark Monitoring for Active Copper Ore Mining and Dressing Facilities

The MR site is classified as a subsector G operation, SIC Code 1021, 1061 and 1044. As an active copper ore mining and dress facility in the event of a stormwater discharge into a state water, the effluent must be tested for the following parameters and benchmark concentrations displayed in Table 2 per section 3.4.7.7.1 of this permit.

3.4.1.7.2 Benchmark Monitoring Requirements for Discharges from Waste Rock and Overburden Piles at Active Metal Mining Facilities

For discharges from waste rock and overburden piles, a permittee would need to perform the benchmark monitoring once in the first year for the parameters listed in Table 3.4.7-B of this permit, and twice annually in all subsequent years of coverage under this permit for any parameters for which the benchmark has been exceeded. The permittee would also be required to conduct analytic monitoring for the parameters listed in Table 3.4.7-C in accordance with the requirements in Part 3.4.7.7.3 of this permit. All unreclaimed ore or waste rock overburden surfaces are directed to site facilities/structures (e.g., Continental Pit, Berkeley Pit, Horseshoe Bend Water Treatment Plant, and Yankee Doodle Tailings Impoundment) and do not pose off-site release potential and will not require any benchmark monitoring as outlined in 3.4.7.7.2 of this permit.

Table 2 . Benchmark Monitoring Parameters

PARAMETER	BENCHMARK MONITORING CONCENTRATION (mg/L)
Total Suspended Solids (TSS)	100
Nitrate plus Nitrite Nitrogen	0.68
Chemical Oxygen Demand (COD)	120

3.4.1.8 Termination of Permit Coverage

The MR site is currently defined as an active phase mine site and is therefore Termination of Permit Coverage does not apply.

4.0 STANDARD CONDITIONS

4.1 Signatory Requirements

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

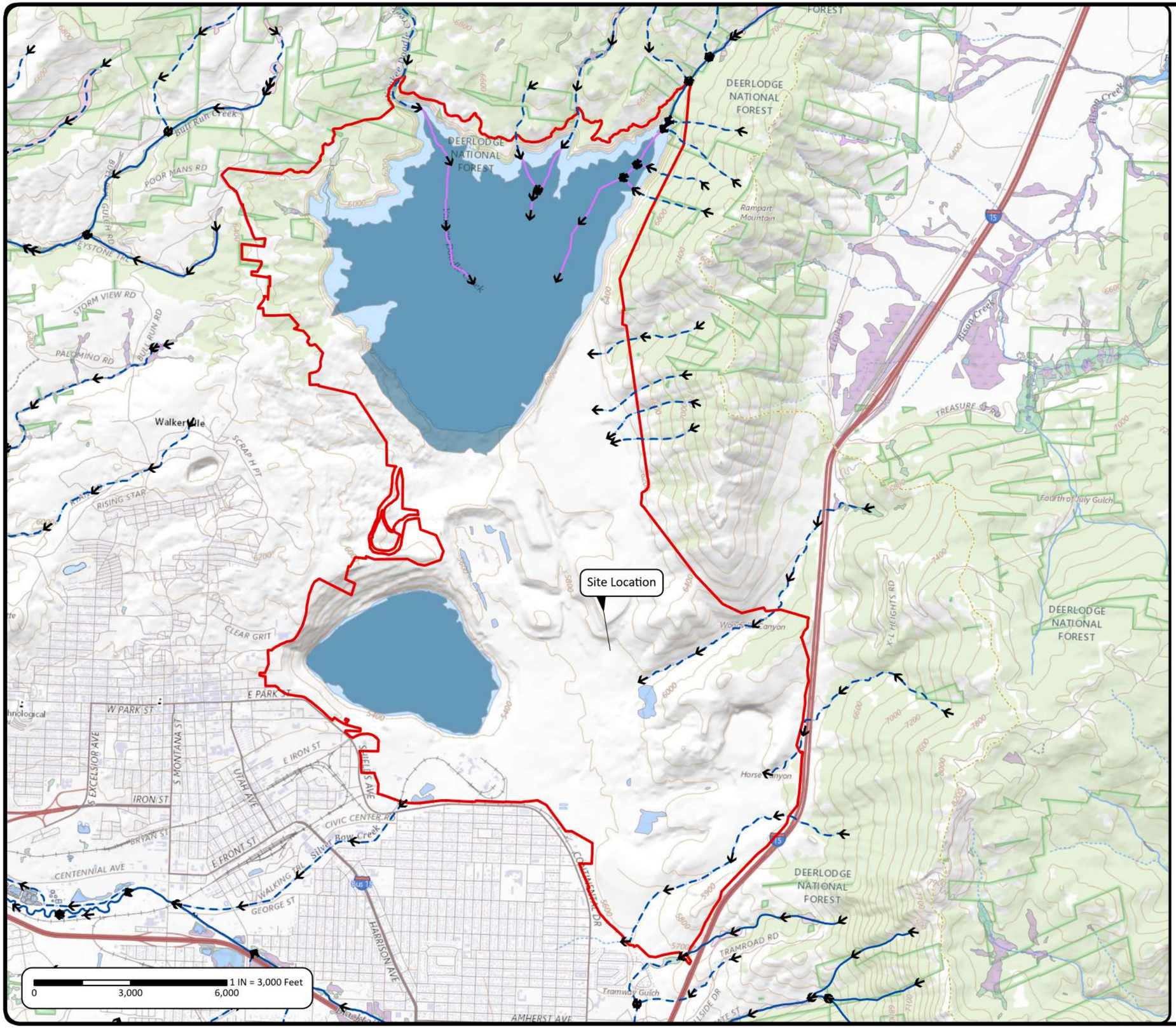
Mark Thompson
Name

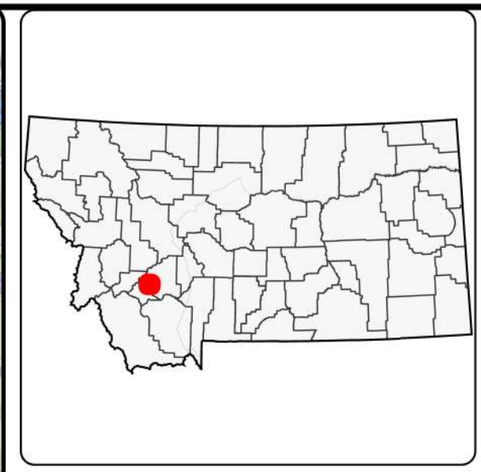
Montana Resources, LLC VP of Environmental Affairs or Environmental Engineer
Title

Signature

3/21/2023
Date

FIGURES





2021 Permit Boundary
Flow Direction

National Hydrography Dataset

Perennial Stream/River
Intermittent Stream/River
Artificial Path

Montana Wetland & Riparian Mapping

Freshwater Emergent Wetland
Freshwater Pond
Freshwater Scrub-Shrub Wetland
Lake
Riparian Emergent
Riparian Forested
Riparian Scrub-Shrub
River

N
W E
S

NO.	DESCRIPTION	DATE	DRAFTER	REVIEWER
1	EDIT FLOW LINES	9/13/22	KK	DL
2				
3				
4				
5				

NOTES

PERMIT AREA - TOPO

MONTANA RESOURCES, LLC. SWPPP

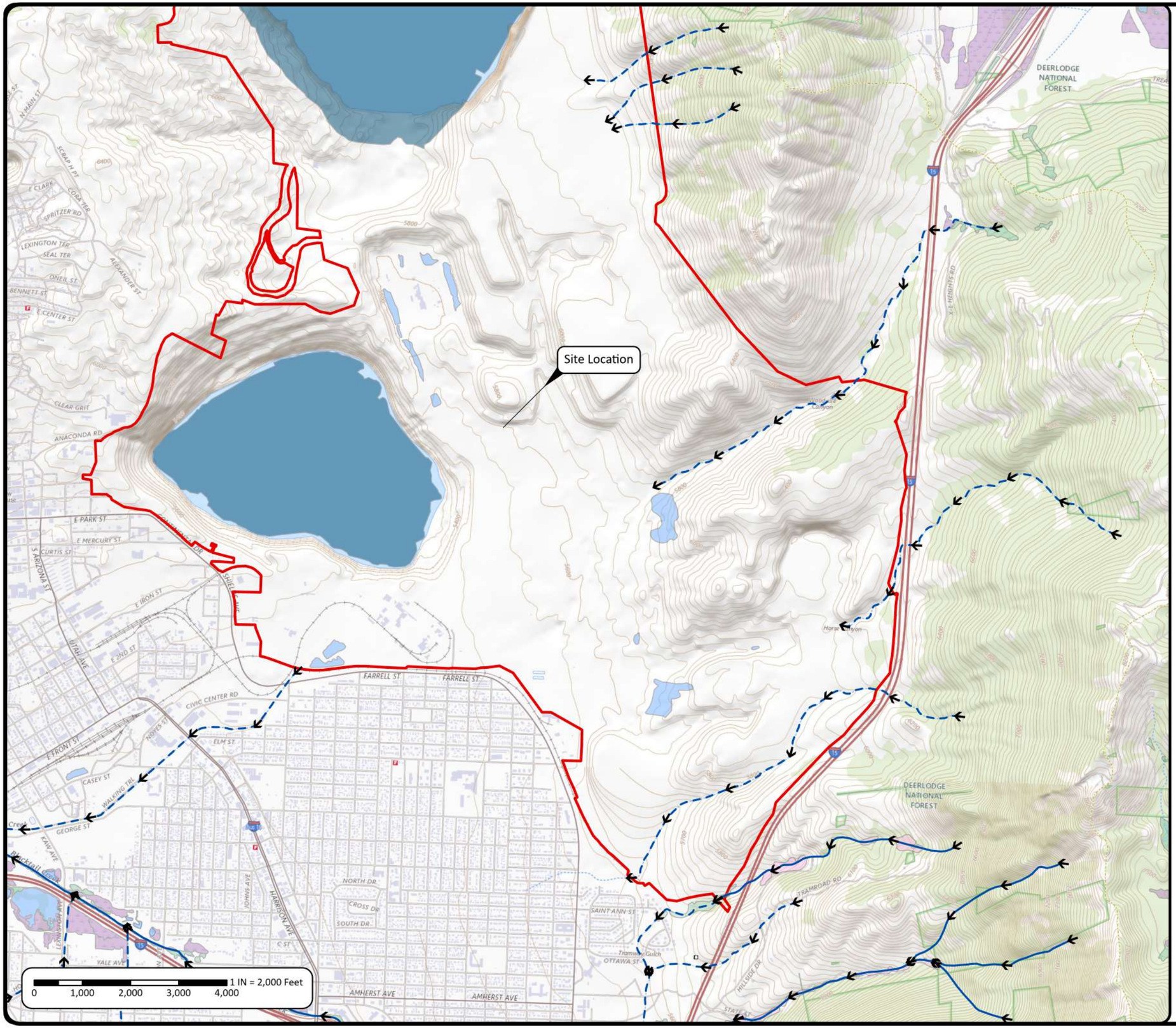
FIGURE 1A

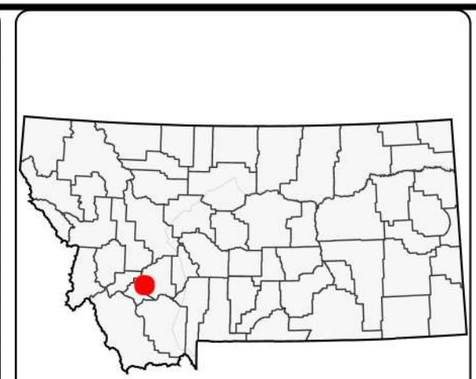
JOB#: MRM11

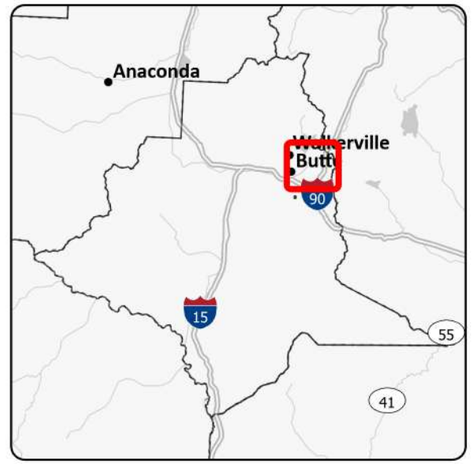
DATE: 9/13/2022

Path: C:\Users\kkresan\Desktop\Working\SWPPP\SWPPP-aprx, Author: kkresan

Water & Environmental TECHNOLOGIES







2021 Permit Boundary

National Hydrography Dataset

- Perennial Stream/River
- Intermittent Stream/River
- Flow Direction

Montana Wetland & Riparian Mapping

- Freshwater Emergent Wetland
- Freshwater Pond
- Freshwater Scrub-Shrub Wetland
- Lake
- Riparian Forested
- Riparian Scrub-Shrub
- River

N
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S

NO.	DESCRIPTION	DATE	DRAFTER	REVIEWER
1	EDIT FLOW LINES	9/13/22	KK	DL
2				
3				
4				
5				

NOTES

SITE LOCATION - TOPO

MONTANA RESOURCES, LLC. SWPPP

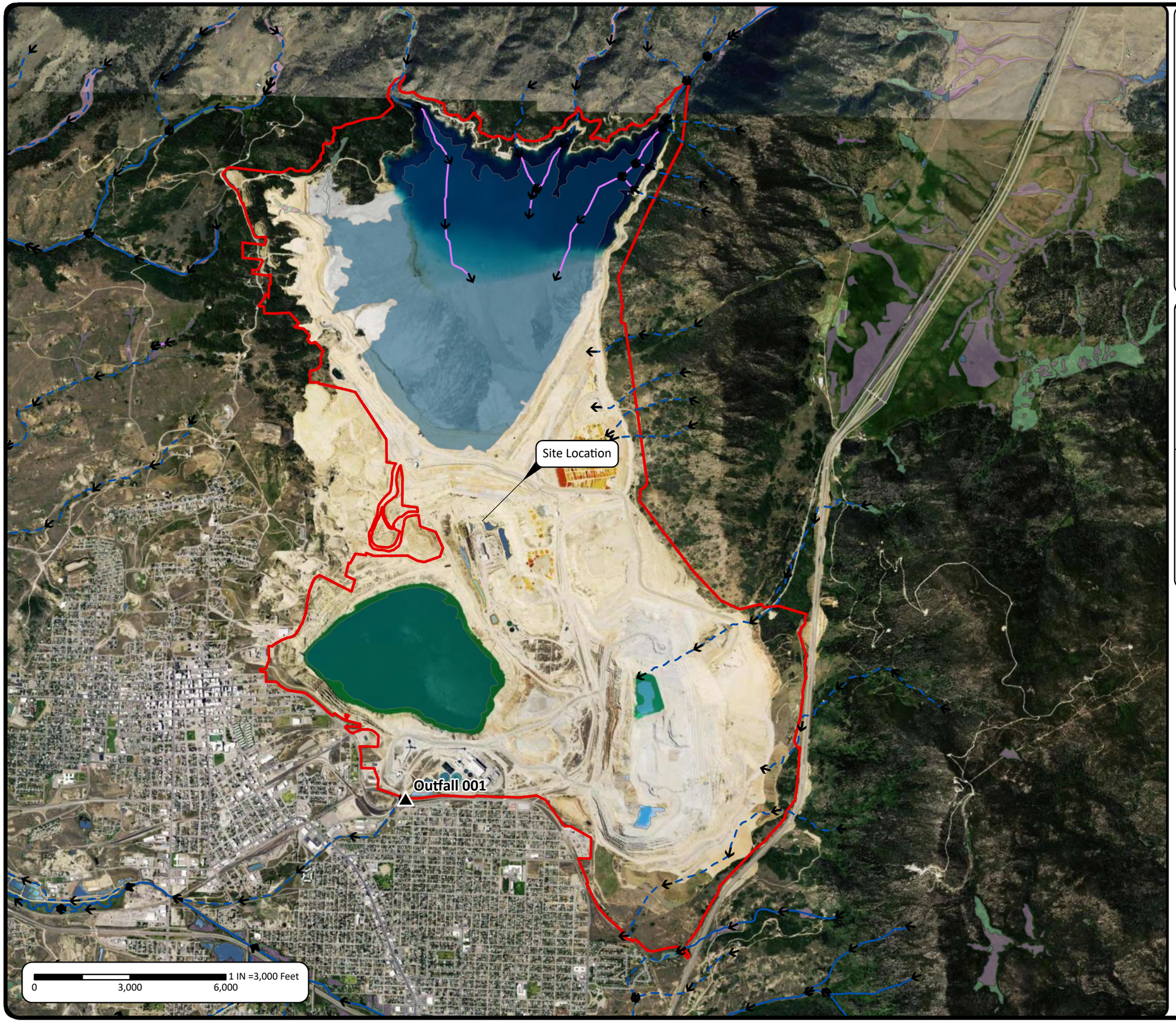
FIGURE 1B

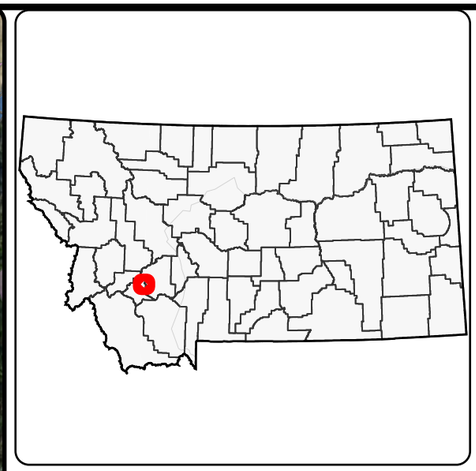
JOB#: MRM11

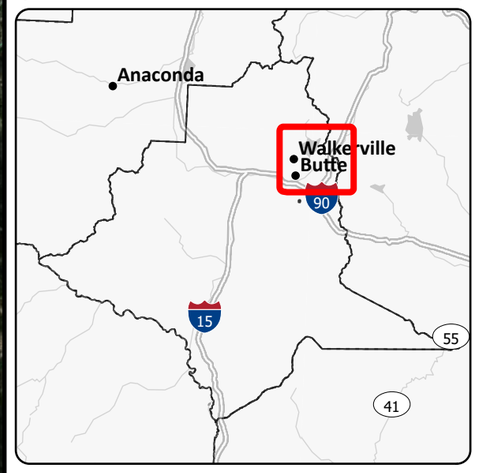
DATE: 9/13/2022

Path: C:\Users\kkresan\Desktop\Working\SWPPP\SWPPP.aprx, Author: kkresan

Water & Environmental TECHNOLOGIES







2021 Permit Boundary

National Hydrography Dataset

- Perennial Stream/River
- Intermittent Stream/River
- Artificial Path
- Flow Direction

Montana Wetland & Riparian Mapping

- Freshwater Emergent Wetland
- Freshwater Pond
- Freshwater Scrub-Shrub Wetland
- Lake
- Riparian Emergent
- Riparian Forested
- Riparian Scrub-Shrub
- River

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NO.	DESCRIPTION	DATE	DRAFTER	REVIEWER
1	EDIT FLOW LINES	9/13/22	KK	DL
2	ADDED OUTFALL	3/20/23	JH	DL
3				
4				
5				

NOTES

PERMIT AREA - AERIAL

MONTANA RESOURCES, LLC. SWPPP

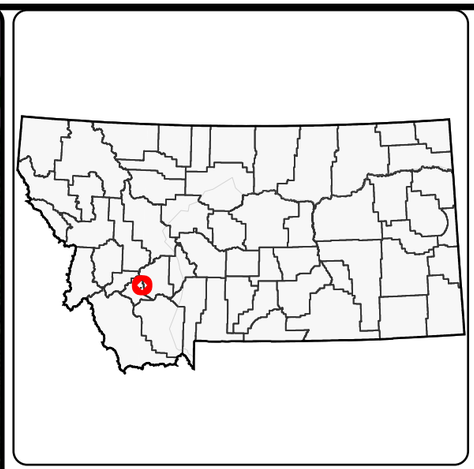
FIGURE 2A

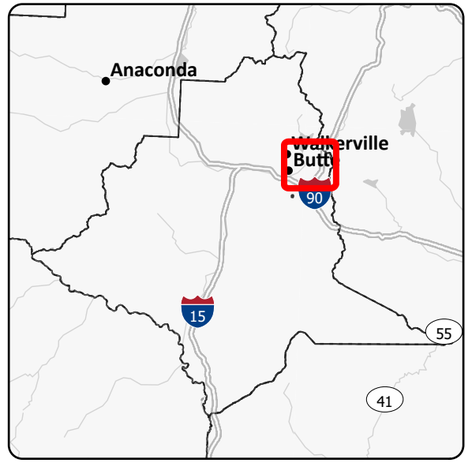
JOB#: MRM11

DATE:3/20/2023

Path: M:\MRM11\GIS\SWPPP\SWPPPaprx, Author: jhulla

Water & Environmental TECHNOLOGIES





2021 Permit Boundary

National Hydrography Dataset

- Perennial Stream/River
- Intermittent Stream/River
- Flow Direction

Montana Wetland & Riparian Mapping

- Freshwater Emergent Wetland
- Freshwater Pond
- Freshwater Scrub-Shrub Wetland
- Lake
- Riparian Forested
- Riparian Scrub-Shrub
- River

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NO.	DESCRIPTION	DATE	DRAFTER	REVIEWER
1	FLOW LINE EDITS	9/13/22	KK	DL
2	ADDED OUTFALL	3/20/23	JH	DL
3				
4				
5				

NOTES

SITE LOCATION - AERIAL

MONTANA RESOURCES, LLC. SWPPP

FIGURE 2B

JOB#: MRM11

DATE:3/20/2023

Path: M:\MRM11\GIS\SWPPP\SWPPP.aprx, Author: jhulla

Water & Environmental TECHNOLOGIES

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NO.	DESCRIPTION	DATE	DRAFTER	REVIEWER
1	ADD/ADJUST SITE FEATURES	7/24/22	KK	DL
2	MOVE OUTFALL/OTHER FEATURES	7/24/22	KK	DL/SC
3	ADD BERK. OUTLET AND ECO TO DREDGE INFRA.	9/15/22	KK	DL
4				
5				

NOTES

SITE FEATURES

MONTANA RESOURCES, LLC. SWPPP

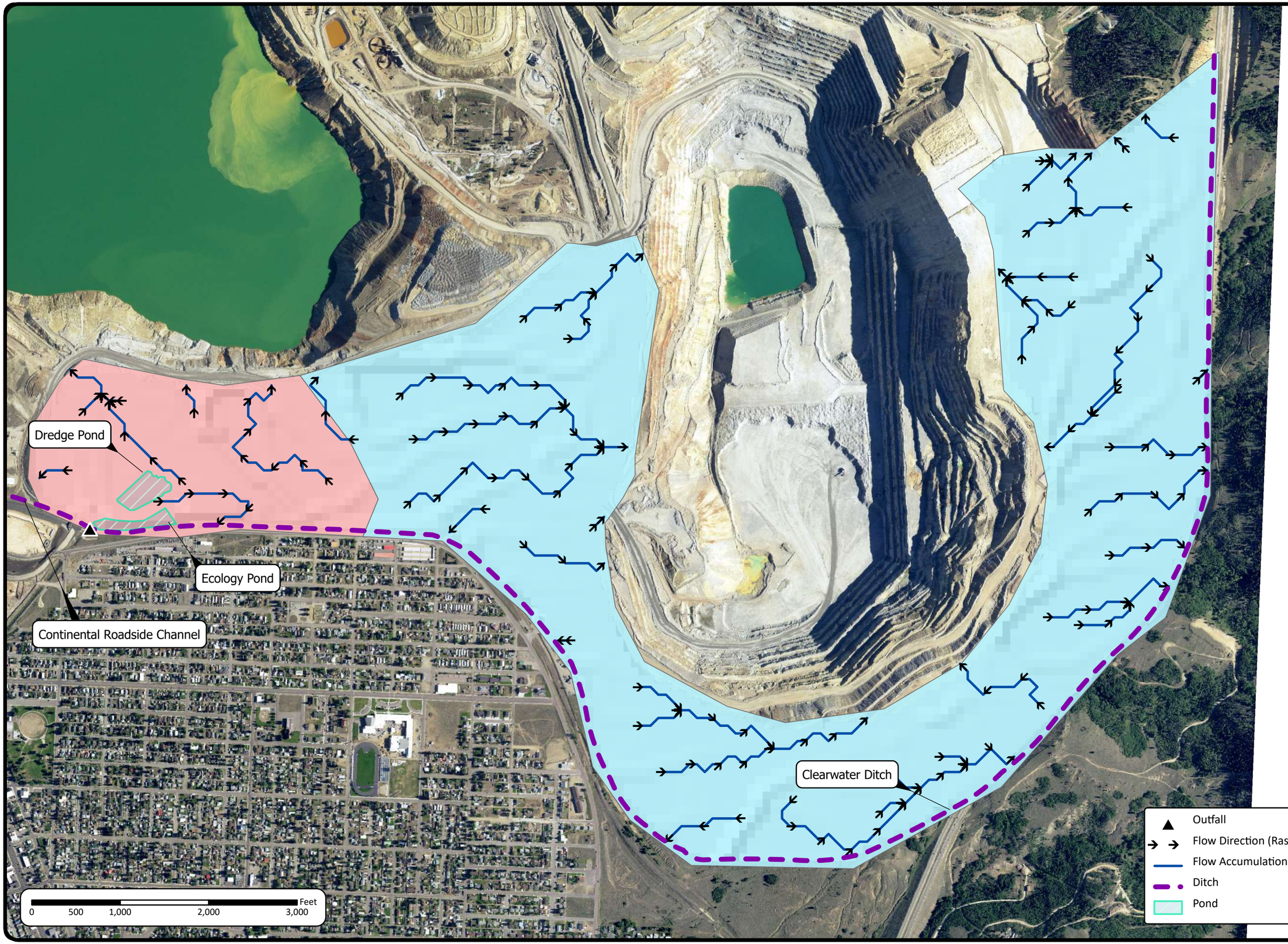
FIGURE 4

JOB#: MRM11

DATE:9/15/2022

Path: C:\Users\kkresan\Desktop\Working\SWPPP\SWPPP.aprx, Author: kkresan

Water & Environmental TECHNOLOGIES



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NO.	DESCRIPTION	DATE	DRAFTER	REVIEWER
1				
2				
3				
4				
5				

NOTES

DRAINAGE FROM DEM

MONTANA RESOURCES, LLC. SWPPP

FIGURE 3

JOB#: MRM11

DATE:9/15/2022

Path: M:\MRM11\GIS\SWPPP\Drainage\Drainage.aprx, Author: jleprowse

Water & Environmental TECHNOLOGIES

16
MOULTON
RESERVOIR
WATERSHED

12
YANKEE DOODLE
WATERSHED

14
DIXIE CREEK
WATERSHED

15
SILVER BOW
WATERSHED

13
YANKEE DOODLE
TRIBUTARY

11
MOULTON ROAD
WATERSHED

YANKEE DOODLE
TAILINGS
IMPOUNDMENT

8
SOUTH RAMPART
MOUNTAIN

7
NORTHWEST
AREA

10
EMBANKMENT

9
LEACH AREAS
2 AND 3

3
WOODVILLE
WATERSHED

6
PRECIPITATION
PLANT

5
GREAT NORTHERN
LEACH
PAD

BERKELEY PIT

4
BPSOU
DRAINAGE

1
MR CONCENTRATOR
AREA

2
CLEAR
WATER

4
CONTINENTAL
PIT

US Feet
0 1,750 3,500

Water & Environmental
TECHNOLOGIES

WATERSHED BOUNDARIES

MONTANA RESOURCES, LLC. SWPPP

FIGURE 5

JOB#: MRM11

DATE:9/15/2022

Path: C:\Users\kkresan\Desktop\Working\SWPPP\SWPPP.aprx, Author: kkresan

- 2021 Permit Boundary
- Watershed Boundary
- Berkeley Pit Subunit
- Continental Pit Subunit
- Horseshoe Bend Subunit
- Leach Pad Subunit
- MR Concentrator Subunit
- Yankee Doodle Subunit

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Attachment A.

Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity MTR000000

http://www.deq.mt.gov/wqinfo/MPDES/StormwaterIndustrial.mcpx

MULTI-SECTOR GENERAL PERMIT
FOR
STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

PERMIT NUMBER MTR000000

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

AUTHORIZATION TO DISCHARGE UNDER
THE MONTANA POLLUTANT DISCHARGE ELIMINATION SYSTEM (MPDES)

In compliance with Section 75-5-101 *et seq.*, Montana Codes Annotated (MCA); Administrative Rules of Montana (ARM) 17.30.1101 *et seq.;* 17.30.1301 *et seq.; and* 17.30.601 *et seq.,*, owners and operators (permittees) with authorization under this *Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity* are permitted to discharge storm water resulting from industrial, mining, and oil and gas activity sites to surface waters in accordance with effluent limitations, monitoring requirements, and other conditions set forth herein.

This Permit shall become effective **February 1, 2023**.

This Permit and the authorization to discharge shall expire at midnight, **January 31, 2028**.

FOR THE MONTANA DEPARTMENT
OF ENVIRONMENTAL QUALITY

|S| Jon Kenning

Jon Kenning, Chief
Water Protection Bureau

Issuance Date: October 4, 2022

1 COVERAGE UNDER THIS PERMIT

1.1 Eligibility

1.1.1 Facilities and Activities Covered

This permit applies to all areas of the State of Montana, except for Indian Reservations. An "owner or operator" of a facility with "storm water discharge associated with industrial activity" or "storm water discharge associated with mining and oil and gas activity" is required to obtain authorization under this MPDES permit. This permit applies to industrial facilities that complete the primary industrial activities listed in Part 3.4, or that are notified by the Department of eligibility for coverage, and that have the potential to discharge industrial storm water to "state waters".

1.1.2 Allowable Storm Water Discharges

The following discharges are eligible for coverage under this permit:

- Storm water discharges associated with industrial, mining, or oil and gas activity for any primary industrial activity as listed in Part 3.4.
- Discharges designated by the Department as needing a storm water permit as provided in Sector AD.
- Discharges that are not otherwise required to obtain MPDES permit authorization but are commingled with discharges that are regulated under this permit.

1.1.3 Allowable Non-Storm Water Discharges

The following are non-storm water discharges allowed under this permit:

1.1.3.1 For all Sectors

- Uncontaminated condensate from air conditioners, coolers, and other compressors and from the outside storage of refrigerated gases or liquids.
- Irrigation drainage, provided all pesticides, herbicides, and fertilizers have been applied in accordance with the approved labeling.
- Landscape watering provided all pesticides, herbicides, and fertilizer have been applied in accordance with the approved labeling.
- Pavement wash waters where no detergents or hazardous cleaning products are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed), and appropriate control measures have been implemented to minimize discharges of mobilized solids and other pollutants.
- Routine external building wash down that does not use detergents or hazardous cleaning products.
- Uncontaminated ground water or spring water.
- Discharges from emergency fire-fighting activities.
- Fire hydrant flushings.
- Foundation or footing drains where flows are not contaminated with process materials.
- 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).

1.1.3.2 Additional Allowable Non-Storm Water Discharges for Specific Sectors

- Sector A: Discharges of spray down of lumber and wood product storage yards where no chemical additives are used in the spray-down waters and no chemicals are applied to the wood during storage. The non-storm water discharge must comply with Part 2 of the permit.

- Sectors G, H, and J: Discharges of water used to control dust – only during earth-disturbing activities conducted prior to active mining activities. Upon the start of active mining activities, the only allowable non-storm water discharges for Sectors G, H, and J are listed in Part 1.1.3.1.

1.1.4 Prohibited Discharges

The following are ineligible for coverage under this permit:

- Storm water mixed with non-storm water discharges, except allowable non-storm water discharges (Part 1.1.3).
- Storm water discharges subject to federal effluent limitation guidelines under 40 CFR, Subchapter N (Part 6).
- Wash water, including but not limited to: vehicle and equipment wash water, tank cleaning operations, or wash water that has come in contact with industrial processes and pollutants (except for those authorized in Part 3.4 for Sectors G, H, and J). Wastewater, wash water and any other unauthorized non-stormwater must be covered under a different MPDES permit and discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements, or otherwise disposed of appropriately.
- Prohibited discharges specific to the industrial activities completed onsite (Part 3.4).
- Storm water discharges associated with construction activity (ARM 17.30.1102(28)). This requires authorization under the MPDES "General Permit for Storm Water Discharges Associated with Construction Activity".
- Discharges of construction dewatering effluent to state surface waters. This requires authorization under the MPDES "General Permit for Construction Dewatering".
- Discharges of disinfected water and hydrostatic testing wastewater to state surface waters. This requires authorization under the MPDES "General Permit for Disinfected Water and Hydrostatic Testing".
- Discharges of mine dewatering water and process generated wastewater to state waters, for facilities engaging in mineral mining and processing defined in 40 CFR Subparts B and C. This requires authorization under the MPDES "Sand and Gravel Operations General Permit".
- Storm water discharges to impaired waterbodies that are inconsistent with approved TMDLs and assigned WLAs.
- Storm water discharges that are likely to adversely affect any species that are federally listed as endangered or threatened, or likely to adversely affect designated critical habitat, under the Endangered Species Act.
- Storm water discharges from sites that do not meet the eligibility requirements of the National Historic Preservation Act.
- Storm water discharges to waterbodies that are inconsistent with additional Department requirements, on a case-by-case basis.

1.1.5 Coverage under Other MPDES Permits

Coverage does not relieve the permittee from any other statute, regulation, permits, or other regulatory requirements for activities occurring within their area and not associated with permitted storm water discharges associated with industrial activities.

When a facility has storm water discharges authorized under this permit and also other types of wastewater covered under separate MPDES permits, these two wastewaters may be combined and discharged as long as the combined discharge is in compliance with all permitting requirements.

1.1.6 Limitations on Coverage

The Department may deny coverage for storm water discharges citing that the permittee appears unable to comply with the one or more of the following requirements:

- Effluent standards, effluent limitations, standards of performance for new sources of pollutants, toxic effluent standards and prohibitions, and pretreatment standards.
- Water quality standards established pursuant to 75-5-301, MCA.
- Prohibition of discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste.
- Prohibition of any discharges to which the EPA regional administrator has objected in writing.
- Prohibition of any discharge which is in conflict with a plan or amendment thereto approved pursuant to section 208(b) of the Act.

Any additional requirements that the Department determines are necessary to carry out the provisions of 75-5-101, et seq., MCA.

In addition, the Department may deny coverage for the following reasons:

- The storm water discharge is different in degree or nature from discharges reasonably expected from sources or activities within the category described in this MPDES General Permit (including pollutants from process wastewater streams).
- The MPDES permit authorization for the same operation has previously been denied or revoked.
- The discharge sought to be authorized under the 2017 General Permit is also included within an application or is subject to review under the Major Facility Siting Act, 75-20-101, et seq., MCA.
- The point source is, or will be, located in an area of unique ecological or recreational significance. Such determination must be based upon considerations of Montana stream classifications adopted under 75-5-301, MCA, impacts on fishery resources, local conditions at proposed discharge sites, and designations of wilderness areas under 16 USC 1132 or of wild and scenic rivers under 16 USC 1274. For purposes of this General Permit, NOI-SWI Packages submitted for coverage will be reviewed for additional information and documentation (as applicable) regarding potential adverse effects from their storm water discharges and mitigation efforts implemented through outlined control measures.

1.2 Authorization Under This Permit

To obtain coverage under this permit, the permittee must submit a full application package. In doing so, the applicant acknowledges eligibility for coverage and agrees to comply with the effluent limits and conditions of this permit. The specific contents of this package may vary by facility; however, every package must include a complete Notice of Intent – Storm Water Industrial (NOI-SWI) form and a Storm Water Pollution Prevention Plan (SWPPP).

The Department will review the application package for completeness. Once determined complete, the Department will issue an authorization letter which states that the facility is covered under the MSGP. The coverage becomes effective on the date of the authorization letter, and continues until the MSGP expires in 2028, or until permit coverage is terminated. The applicant must have the authorization letter from the Department prior to initiating discharge to any state surface waters.

1.2.1 New Authorizations

For new authorizations (i.e. facilities not previously authorized under the MSGP) the permittee must submit the application package to the Department at least 30 days prior to commencing discharge.

The complete application package for first-time coverage consists of:

- A Notice of Intent form, including all required attachments, using the NOI-SWI form provided by the Department.
  - "New" should be selected in Section A.

  - For new sources, permittees must evaluate the impacts that their facility will have on ecological resources and cultural heritage sites using the Montana National Heritage Program and the Montana State Historic Preservation Office, respectively.
- A SWPPP, including all associated maps, diagrams, details, and plans. The SWPPP must have all the general requirements identified in Part 3.1 and any additional requirements for the permittee's industrial sector/subsector identified in Part 3.4.
- A copy of the consultation letter from the Montana Sage Grouse Habitat Conservation Program (if applicable).
- The new permit application fee corresponding to facility size.
- The NOI-SWI form must be signed by an authorized signatory (Part 4.18.1.1).

For new authorizations, the permittee must be implementing the control measures and effluent limits in Part 2 of this permit upon submittal of the application package.

1.2.2 Continuing Authorization from the 2018 General Permit

Permittees that require continued authorization beyond the 2018-2023 MSGP must submit a complete renewal application package to the Department to be covered under the reissued 2023-2028 general permit. The permittee must submit a complete renewal application package no later than 30 days after the January 31, 2023 expiration date of the 2018 MSGP.

The renewal application package must consist of:

- A NOI-SWI form, including all required attachments.
  - "Renewal" should be selected in Section A.
- A SWPPP, including all associated maps, diagrams, details, plans, and records. The SWPPP must have all the general requirements identified in Part 3.1 and any additional requirements for the permittee's industrial sector/subsector identified in Part 3.4.
- A copy of the consultation letter from the Montana Sage Grouse Habitat Conservation Program (if applicable).
- The renewal application fee corresponding to facility size.
- The NOI-SWI form must be signed by an authorized signatory (Part 4.18.1.1).

1.2.3 Modification to Authorizations

Permittees requiring a modification to their authorization under the 2023-2028 MSGP must submit a complete modified application package to the Department. Reasons for needing to modify an authorization may include increasing/decreasing the total size of the regulated facility/activity or adding/removing outfalls.

The modified application package must consist of:

- A NOI-SWI form, including all required attachments.
  - "Modification" should be selected in Section A.
- A SWPPP, including all associated maps, diagrams, details, plans, and records. The SWPPP must have all the general requirements identified in Part 3.1 and any additional requirements for the permittee's industrial sector/subsector identified in Part 3.4.
  - The SWPPP should be updated to reflect the modifications requested.
- A copy of the consultation letter from the Montana Sage Grouse Habitat Conservation Program (if necessary).
  - If the regulated industrial activity is within designated sage grouse habitat, any modification due to a change in acreage requires verification from the Montana Sage Grouse Habitat Conservation Program that may require a consultation letter and/or updates to a consultation letter. If the

modification request is outside of sage grouse habitat, no consultation is required. See NOI-SWI form and attached instructions.

- Modification requests are processed with the renewal application fee corresponding to the updated facility size.
- The NOI-SWI form must be signed by an authorized signatory (Part 4.18.1.1).

1.2.4 Resubmittal and Administrative Processing

The Department may request a resubmittal of a NOI-SWI form, SWPPP, any required records, and any associated fees. Administrative processing fees may be assessed for Department reviews.

1.3 Public Sign Requirement

The permittee must post a sign to publicly display confirmation of coverage under the MSGP. The sign must be posted at the industrial site's entrance, or most visible entrance if there are multiple access points. At a minimum the sign or other notice must:

- Be a large and readable size.
- Be visible from the nearest road.
- Include MPDES authorization number and the permittee name.
- Include the statement "Request permit information from Montana DEQ Enforcement Division at (406) 444-0379."
- Include the statement "Visit DEQ's website at deq.mt.gov to file a complaint or report pollution."

1.4 Transfer of Coverage under this Permit

To transfer ownership or change the name of the entity that holds an authorization under this permit, permittees must submit the Department's Permit Transfer Notification form (PTN-SWI) with the corresponding fee. The PTN-SWI must be submitted at least 30 days before the effective date of the proposed transfer.

The PTN-SWI constitutes written notice to the Department under the Montana Water Quality Act that the new owner or operator assumes responsibility and liability for all the terms and conditions, including permit fees. This PTN-SWI form may not be used to transfer coverage to a new or different industrial site, facility, or location. This PTN-SWI form does not modify the terms and conditions of the authorization.

Until the Department determines the submitted PTN-SWI form is complete, the owner or operator on record remains responsible for compliance with the terms of the authorization under this permit, including fees and/or violations.

1.5 Termination of Coverage under this Permit

To terminate coverage under this permit, permittees must submit the Department's Notice of Termination (NOT-SWI) form. The NOT-SWI form must be signed by an authorized signatory (Part 4.18.1.1).

Coverage under this permit remains in effect until the Department processes the NOT-SWI form. The permittee is responsible for complying with the terms of this permit until notified by the Department that the authorization is terminated.

The permittee may request termination within 30 days after one or more of the following conditions have been met:

- The permittee has ceased operations at the facility and therefore eliminated any and all regulated storm water discharges to state surface waters and demonstrates to the Department there is no probability of further uncontrolled discharge(s) to state surface waters, and the permittee implemented necessary sediment and erosion controls as required by Part 2.2.5

- The permittee is a Sector G, H, or J facility and the permittee has met the sector-specific termination requirements in Part 3.4.
- The permittee obtained coverage under an individual MPDES permit or alternative MPDES general permit authorizations for all discharges required to be covered by an MPDES permit. The authorization to discharge under this permit will terminate on the effective date of the applicable individual or alternative MPDES permit coverage(s).

Upon receipt of the NOT-SWI form, the Department may request additional information and/or documentation that demonstrates and confirms that regulated storm water discharge has been eliminated. If the permittee submits a NOT-SWI form without meeting one or more of the conditions listed above, then it cannot be approved.

The permittee is responsible for payment of annual fees for each calendar year covered under the MSGP. Failure to submit a NOT-SWI will result in accrual of annual permit fees.

1.6 Conditional Exclusion for No Exposure

Industrial facilities covered under this permit may be eligible for a Conditional Exclusion for No Exposure Certification if all industrial materials and activities are protected by a storm-resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. Discharges composed entirely of storm water due to no exposure may submit an Industrial No Exposure Certification (MTR-NE) form instead of obtaining coverage under the MSGP.

The exclusion is not available for the following:

- Storm water discharges associated with construction activities.
- Individual outfalls at an industrial facility (facility-wide basis only).
- A circumstantial change in industrial materials and activities exposures (such exposures may be subject to enforcement for unpermitted discharges).

If a facility with coverage under a MTR-NE has pollutants potentially exposed to storm water, then the condition of no exposure is not valid, and the must apply for and obtain coverage under the MSGP or an individual MPDES permit.

If a facility submits a MTR-NE and the associated fee, the industrial activity is not excluded from MSGP coverage until the Department approves the application and issues a certification letter.

If a permittee is covered by the MSGP and becomes eligible for a no exposure exclusion from permitting, the permittee may submit a MTR-NE. Until the Department approves and issues a certification letter, the permittee remains responsible for compliance with the terms of the authorization under the MSGP, including fees and/or violations. The owner/operator is not required to submit a NOT-SWI upon receipt of the no exposure certification letter.

The owner/operator must recertify the conditional exclusion for no exposure once every five years from the original Department issued certification letter date through resubmittal of the Department's Industrial No Exposure Certification Form and the associated fee. Please refer to the Department's "Industrial No Exposure Certification Form" for further information.

If the facility has a current No Exposure Certification letter for the industrial activities and the certification is no longer needed because the facility or industrial activities has permanently ceased operation and industrials activities no longer exist, the owner/operator may let the No Exposure Certification expire or submit a NOT-SWI.

1.7 Submission of Permit Documents

Documents required by the Department (e.g. application packages, PTNs, NOTs, MTR-NEs, and annual reports) may be submitted via the online permitting system FACTS or by mail to:

Montana Department of Environmental Quality
Water Protection Bureau
P.O. Box 200901
Helena, MT 59620-0901

2 EFFLUENT LIMITATIONS, MONITORING, AND REPORTING REQUIREMENTS

2.1 Control Measures Used to Meet Effluent Limits

The permittee must select, design, install, and implement storm water control measures – including best management practices (BMPs) or other structural or non-structural practices – to meet the non-numeric technology-based effluent limits in Part 2.2, and the water quality-based effluent limitations in Part 2.3. The selection, design, installation, and implementation of these control measures must be in accordance with Part 2.1.1 and good engineering practices and manufacturer's specifications. The effluent limits in this permit do not identify specific control measures.

Effluent limits in Part 2.2 and Part 2.3 of this permit include the terms:

- "Minimize" - meaning the reduction and/or elimination to the extent achievable using control measures (including BMPs or other structural or non-structural practices) that are technologically available and economically practicable and achievable in light of best industry practice.
- "Infeasible" - meaning not technologically possible or not economically practicable and achievable in light of best industry practices.

The permittee maintains the flexibility to select and adaptively manage control measures that are the most effective for their specific facility/operation and meet permit requirements. All control measures must be documented in the SWPPP, site map(s), and inspection records (as applicable). If alternative controls are utilized, documentation must be included to confirm infeasibility and rationale that the chosen measure achieves comparable criteria. If the permittee deviates from manufacturer's specifications, justification must be provided for such deviation and include documentation of the rationale in the SWPPP, consistent with Part 3.1.7. If the permittee finds that the control measures are not achieving their intended effect of minimizing pollutant discharges to meet applicable water quality standards or any of the other non-numeric effluent limits in this permit, the permittee must modify these control measures per the corrective action requirements in Part 2.7. Regulated storm water discharges from the facility include storm water run-on that commingles with storm water discharges associated with industrial activity at the facility.

2.1.1 Control Measures Selection and Design Considerations

At a minimum, the permittee must consider the following in the selection and design of control measures:

- Preventing storm water from coming into contact with polluting materials is generally more effective, and less costly, than trying to remove pollutants from storm water.
- Using control measures in combination may be more effective than using control measures in isolation for minimizing pollutants in the storm water discharge.
- Assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to designing effective control measures that will achieve the limits in this permit.
- Assessing storm water sampling data that characterizes the type and quantity of pollutants from the facility.

- Minimizing impervious areas at the facility and infiltrating runoff onsite (including bioretention cells, green roofs, and pervious pavement, among other approaches) can reduce runoff and improve ground water recharge and stream base flows in local streams, although care must be taken to avoid ground water contamination.
- Attenuating flow using open vegetated swales and natural depressions can reduce in-stream impacts of erosive flows.
- Conserving and/or restoring riparian buffers will help protect streams from storm water runoff and improve water quality.
- Using treatment interceptors (e.g., swirl separators and sand filters) may be appropriate in some instances to minimize the discharge of pollutants.

2.2 Non-Numeric Technology Based Effluent Limits

Technology-Based effluent limits must be achieved through good engineering selection and design, installation, implementation, and maintenance of control measures. To meet this requirement, all permittees must comply with the conditions in Part 2.1, the sector-specific requirements in Part 3.4, and any other state or local requirements.

The permittee must implement additional sector-specific non-numeric technology based effluent limits stipulated in Part 3.4.

2.2.1 Minimize Exposure

The permittee must minimize the exposure of manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) to rain, snow, snowmelt, and runoff by either locating these industrial materials and activities inside or protecting them with storm resistant coverings. Unless infeasible and at a minimum, the permittee must:

- Use grading, berming, or curbing to prevent runoff of contaminated flows and divert run-on away from these areas.
- Locate materials, equipment, and activities so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas).
- Perform all cleaning operations indoors, under cover, or in bermed areas that prevent runoff and run-on and also that capture any overspray.
- Ensure that all wash water drains to a proper collection system (i.e., not the storm water drainage system).

The discharge of vehicle and equipment wash water, including tank cleaning operations, is not authorized by this permit. These wastewaters must be covered under a separate MPDES permit, discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements, or disposed of otherwise in accordance with applicable law.

2.2.2 Good Housekeeping

The permittee must keep clean and orderly all exposed areas that are potential sources of pollutants. The permittee must perform good housekeeping measures to minimize pollutant discharges, including but not limited to the following:

- Sweep or vacuum at regular intervals or, alternatively, wash down the area and collect and/or treat, and properly dispose of the washdown water.
- Organize and store materials in appropriate, labeled containers.
- Keep all dumpster lids closed when not in use. For dumpsters and roll off boxes that do not have lids and could leak, ensure that discharges have a control (e.g., secondary containment, treatment). This permit does not authorize dry weather discharges from dumpsters or roll off boxes (Part 1.1.4).

- Minimize the potential for waste, garbage and floatable debris to be discharged by keeping exposed areas free of such materials, or by intercepting them before they are discharged.
- Plastic materials requirements: facilities that handle pre-production plastic must implement control measures to eliminate discharges of plastic in storm water. Examples of plastic material required to be addressed as storm water pollutants include plastic resin pellets, powders, flakes, additives, regrind, scrap, waste, and recycling.

2.2.3 Maintenance

The permittee must maintain all control measures that are used to achieve the effluent limits in this permit in effective operating condition to minimize pollutant discharges. This includes:

- Maintained in accordance with good engineering practices and/or manufacturers specifications.
- Performing inspections, and preventive and routine maintenance of storm water drainage, source controls, treatment systems, and all other industrial equipment that could result in discharges of pollutants via storm water.
- Maintaining all non-structural control measures (e.g., keep spill response supplies available, personnel appropriately trained).
- Repairing, modifying, installing, and/or replacing control measures that are ineffective, not installed, or in need of repair (Part 2.9).

2.2.4 Spill Prevention and Response Procedures

The permittee must minimize the potential for leaks, spills and other releases that may be exposed to storm water and develop plans for effective response to such spills if or when they occur to minimize pollutant discharges. The permittee must implement spill prevention and response procedures, including but not limited to the following:

- Clean up spills and leaks promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants.
- Use drip pans and absorbents under or around leaky vehicles and equipment or store indoors where feasible.
- Use spill/overflow protection equipment.
- Drain fluids from equipment and vehicles prior to on-site storage or disposal.
- 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.
- Implement procedures for material storage and handling, including preventative measures such as barriers between material storage and traffic areas and secondary containment provisions.
- Assemble complete spill kits that are appropriate for the potential pollutants from industrial activities at the facility and the potential quantity of the leak, spill, or other release.
- Maintain and position complete spill kits near areas where spills may occur and/or have occurred, and where easy accessibility and availability during a rapid response situation (consideration should be taken for maintaining an inventory for replacing individual spill kit items and/or additional complete spill kits for immediate replacement upon use).
- Identification, containment, cleaning-up/response, disposal of contaminated materials, and documentation of leaks, spills, and other releases. Employees who may cause, identify, or respond to a spill or leak must be trained in these procedures and have necessary spill response equipment accessible and available. If possible, one of these individuals should be a member of the storm water pollution prevention team (Part 3.1.3).
- Notification (including required reporting information and timeframes) of appropriate facility personnel, emergency response agencies, and regulatory agencies when a leak, spill, or other release occurs. All spills and leaks must be reported in accordance with applicable local requirements.

Appropriate response contact information must be in locations that are readily accessible and available.

2.2.5 Erosion and Sediment Controls

To minimize the discharge of sediment and soils in storm water, the permittee must implement erosion and sediment controls. This includes:

- Minimize and stabilize exposed areas.
- Contain and/or divert runoff from exposed areas to sediment removal BMPs and treat prior to discharge.
- Divert run-on from exposed areas.
- Select, design, install, and implement appropriate BMPs in accordance with good engineering practices, design specifications, and industrial sector-specific information.
- Maintain all BMPs in effective operating condition in accordance with design specifications.
- Protect and/or maintain all storm drain inlets.
- Stabilize ditches, swales, channels, and outlets.
- Utilize flow volume and velocity dissipation devices, where necessary to reduce erosion and/or settle out pollutants.
- Provide surface outlets for retention and detention facilities, and discharge the highest quality water from the facility.
- Minimize sediment discharges through the use of structural and non-structural measures.
- Minimize and manage vehicle/operations entrances and exits from exposed areas.

2.2.6 Management of Storm Water

The permittee must divert, infiltrate, reuse, contain, or otherwise reduce storm water runoff to minimize pollutants in the discharges. Select, design, install, and implement appropriate runoff management controls in accordance with good engineering practices, design specifications, and industrial sector-specific information.

2.2.7 Salt Storage Piles or Piles Containing Salt

The permittee must enclose or cover storage piles of salt, or piles containing salt, used for deicing or other commercial or industrial purposes, including maintenance of paved surfaces, to minimize pollutant discharges. The permittee must implement appropriate measures (e.g., good housekeeping, diversions, containment) to minimize exposure resulting from adding to or removing materials from the pile. Piles do not need to be enclosed or covered if storm water runoff from the piles is not discharged or if discharges from the piles are authorized under another MPDES permit.

2.2.8 Employee Training

2.2.8.1 Personnel Who Require Training

All employees who work in areas where industrial materials or activities are exposed to storm water, or who are responsible for implementing activities necessary to meet the conditions of this permit (e.g., inspectors, maintenance personnel), including the members of the storm water pollution prevention team, must receive appropriate training on an annual basis.

The SWPPP administrator must ensure the following personnel understand the requirements of the MSGP and their specific responsibilities with respect to those requirements:

- Personnel responsible for the design, installation, maintenance, and/or repair of controls (including pollution prevention measures).
- Personnel responsible for the storage and handling of chemicals and materials that could become contaminants in stormwater discharges.

- Personnel responsible for conducting and documenting monitoring and inspections (Parts 2.4 and 2.6).
- Personnel responsible for taking and documenting corrective actions (Part 2.9).

2.2.8.2 Areas of Required Training

At a minimum, personnel must be trained annually in the following if related to the scope of their job duties:

- An overview of what is in the SWPPP, including the site map.
- Spill response procedures, good housekeeping, maintenance requirements, and material management practices.
- The location of all controls on the site required by this permit, and how they are to be maintained.
- The proper procedures to follow with respect to the permit's pollution prevention requirements.
- When and how to conduct inspections, record applicable findings, and take corrective actions.

Training must cover both the specific control measures used to achieve the effluent limits and monitoring, inspection, planning, reporting, and documentation requirements. Training documentation must include a description of the training, the date of the training, and employees in attendance.

2.2.9 Non-Storm Water Discharges

The permittee must evaluate for the presence of non-storm water discharges. Part 1.1.3 has a list of non-storm water discharges allowed to discharge under this permit. Part 1.1.4 has a list of non-storm water discharges that are prohibited under this permit.

The presence of non-storm water discharges must be evaluated prior to submitting an application package through testing of storm water or through knowledge of the industrial activities occurring on-site. Non-storm water discharges should also be evaluated during routine and storm-event site inspections.

2.2.10 Dust Generation and Vehicle Tracking of Industrial Materials

The permittee must minimize generation of dust and off-site tracking of raw, final, or waste materials.

2.3 Water Quality-Based Effluent Limitations

Water quality-based effluent limits supplement Part 2.1 and Part 2.2. The permittee must implement additional sector-specific non-numeric technology based effluent limits stipulated in Part 3.4.

2.3.1 Water Quality Standards

Storm water discharges regulated under this permit must be controlled as necessary to meet applicable numeric and narrative water quality standards. A storm water discharge associated with industrial activity must not cause or contribute to an exceedance of applicable water quality standards.

The Department expects that compliance with the conditions in this permit will control discharges as necessary to meet applicable water quality standards. If at any time the permittee becomes aware, or the Department determines, that the discharge causes or contributes to an exceedance of applicable water quality standards, the permittee must take corrective action as required in Part 2.7 and document the corrective actions as required in Parts 2.7.3.4, 2.8, and 2.9.3.

On a case-by-case basis, permittees will be informed if any additional controls are necessary for discharges to meet water quality standards; such additional controls must be implemented and identified within the SWPPP. Additionally, the Department may require the permittee to obtain coverage under an individual permit if storm water discharges are not controlled as necessary to meet applicable water quality standards, or discharges must be eliminated.

2.3.2 Discharges to Impaired Waters

Discharges to an impaired water must comply with applicable water quality standards, storm water control measures, and BMPs.

The permittee must identify if storm water discharges from their industrial activity will discharge to impaired waterbodies. Information on impaired waterbodies may be obtained from the Department or from the Montana DEQ Clean Water Act Information Center website. The permittee must consider all impairments and the presence of the corresponding pollutants of concern in their proposed discharges. Discharges of the pollutants of concern to impaired waterbodies are eligible for coverage under this permit if consistent with approved TMDLs and assigned WLAs, and the requirements outlined below.

2.3.2.1 Discharges to an Impaired Waterbodies with No Approved TMDL

For regulated storm water discharges associated with industrial activity under this permit, the SWPPP must include a section that describes BMPs which target and reduce any discharges of the identified pollutants of concern to the corresponding impaired waterbodies. The permittee need only to include the identified pollutants of concern in the SWPPP if the waterbodies are listed as impaired for such pollutants.

2.3.2.2 Discharges to an Impaired Waterbodies with an Approved TMDL

For regulated storm water discharges associated with industrial activity, the SWPPP must include a section that describes BMPs that target and reduce any discharges of the identified pollutants of concern to the corresponding impaired waterbodies. The permittee need only include the identified pollutants of concern in the SWPPP if the waterbodies are listed as impaired for such pollutants.

The permittee must ensure that all discharges are consistent with the assumptions of any applicable TMDL wasteload allocation. All EPA-approved TMDL wasteload allocations applicable to MPDES-regulated storm water industrial activities are incorporated by reference into this permit.

Permittees will be informed if any additional controls are necessary for discharges to protect beneficial uses or to be consistent that the assumptions of any available TMDL wasteload allocation. Such additional controls must be identified within the permittees SWPPP. In certain cases, the Department may find coverage under an MPDES individual permit necessary.

2.4 Inspection Program

There are two types of inspections required under the MSGP: routine and significant storm inspections. These requirements pertain to all permittees; Part 3.4 has additional industrial sector or subsector-specific inspection requirements.

The permittee must develop and implement an Inspection Program to ensure that all controls are functional and in place to prevent or reduce pollutant runoff from the facility. At a minimum, the Inspection Program includes:

- Identification of qualified inspectors.
- Development of procedures and schedules for conducting all required inspections.
- Development and implementation of appropriate inspection documentation in accordance with all permit requirements.

The Inspection Program will be documented and maintained in the SWPPP, as required in Part 3.1.

2.4.1 Qualified Inspectors for the MSGP

Inspections under this permit must be conducted and documented by qualified inspectors. Qualified inspectors must be knowledgeable and skilled within the following concepts to serve their role and perform inspection requirements:

- Knowledge of the facility, its day-to-day operations including all industrial materials and activities, and the overall site layout including location of storm water outfalls.
- Knowledge of potential pollutants generated from the facility's industrial materials and activities.
- Knowledge of storm water pollution prevention principles and practices including the minimum requirements for control measures (Part 2) and industry specific control measures (Part 3.4).
- An overview of what is in the SWPPP and access to the SWPPP and site map.
- The location of all controls on the site required by this permit.
- Knowledge of the appropriate selection, installation, function, and maintenance/repairs of all controls on site to evaluate effective operating condition in accordance with any developed and/or manufacturers plans and specifications.
- Implementation skills for all permit requirements for inspections, corrective actions, and required recordkeeping to include when and how to conduct inspections, record applicable findings, initiate corrective actions (at a minimum), and when appropriate, report violations and/or noncompliance.

The SWPPP Administrator (Part 3.1) may also serve the role as a qualified inspector. Any additional qualified inspectors must be identified in the SWPPP and any corresponding inspection reports must be signed by both the inspector and SWPPP Administrator.

2.4.2 Routine Facility and Significant Storm Inspection Procedures

During normal facility operating hours, the permittee must conduct routine facility and significant storm event inspections of areas of the facility covered by the requirements in this permit, including, but not limited to, the following:

- All areas of the facility where industrial materials or activities are exposed to storm water.
- Areas identified in the SWPPP (Part 3.1) and those that are potential pollutant sources including sources entering the site's drainage system, if accessible.
- Areas where spills and leaks have occurred in the past three years.
- All known allowable points of non-storm water discharges.
- All storm water outfalls and the condition of and around the outfall, including flow dissipation measures to prevent scouring.
- All storm water control measures used to comply with the effluent limits (Part 2) contained in this permit.
- Any additional industrial sector or subsector-specific areas and control measures in Part 3.4.

If observed during the inspection, the permittee must examine, document, and take corrective actions, as necessary:

- Industrial materials, residue, or trash that may have or could come in contact with storm water.
- Leaks or spills from industrial equipment or waste materials, or sediment where vehicles enter and exit the site.
- Previously unidentified discharges of pollutants from the site.
- Tracking or blowing or raw, final, or waste materials from areas of no exposure to exposed areas.
- Non-storm water discharges that are not listed in Part 1.1.3, or are prohibited per Part 1.1.4.
- Control measures needing replacement, maintenance, and repair including the conditions of drums, tanks, and other containers.
- Conditions requiring additional control measures.

If observed during the inspection in wet weather conditions, the permittee must also examine, document, and take corrective actions, as necessary:

- Obvious indicators of storm water pollution around the site such as color, odor, clarity, floating solids, settled solids, suspended solids, foam, and/or oil sheen of the storm water runoff.

The permittee's facility specific Routine and Significant Storm Event Inspection Procedures are part of the Inspection Program documented and maintained in the SWPPP (Part 3.1).

2.4.3 Routine Inspection Frequency

Routine facility inspections must be conducted at least quarterly. In many instances, more frequent inspection may be appropriate for some types of equipment, processes, and control measures or areas of the facility with activities and materials exposed to storm water. Certain industrial sectors/subsectors may require monthly inspections. Additional inspection requirements can be found in Part 3.4.

At least once each calendar year, the routine facility inspection must be conducted during a period when a storm water discharge is occurring. If the facility typically does not have a storm water discharge occurring at the outfall, then this inspection must be conducted during a rainfall or snowmelt event (when prominent wet-weather conditions exist at the site).

One routine facility inspection per year may be used or credited towards one of the significant storm event inspections if it meets the criteria in Part 2.4.4.

2.4.4 Significant Storm Events Inspection Frequency

In addition to the routine inspections, the permittee must conduct inspections after significant storm (rainfall or snowmelt) events. The significant storm event inspections must be conducted within 72 hours of the end of a rainfall or snowmelt event or in the timeframe specified in Part 3.4 for the sector or subsector.

A significant rainfall event is a rainfall event over any 24-hour period which results in 0.5 inches or more of measured or otherwise documented rainfall. A significant snowmelt event is an event where thawing conditions above freezing cause visible runoff or drainage from snowmelt on the site.

To determine if a rainfall storm event of 0.5 inches or greater has occurred on site, the permittee must properly maintain a rain gage on site or obtain the storm event information from a weather service representative of the location. For any day of rainfall 0.5 inches or greater, record the method of rainfall determination and the total rainfall measured that day in the corresponding inspection documentation.

Within the same calendar month, only two significant storm event inspections (performed on different days) are minimally required if more than two significant storm events occur (on different days) during that same calendar month.

One significant storm event inspection per year may be used and credited towards one of the routine facility inspections, as identified in Part 2.4.3.

For facilities which are inactive or unstaffed, significant storm event inspections must be performed as soon as practicable after a significant rainfall or snowmelt event. The SWPPP must include the expected timeframe that an inspection would be delayed, and an explanation as to why an inspection cannot be performed within the first 72 hours. This timeframe is subject to review from the Department.

2.4.5 Routine Facility and Significant Storm Event Inspection Documentation

The permittee must document the findings of each routine facility and significant storm event inspection, and maintain these documents onsite with the SWPPP as required in Part 3.1.

At a minimum, the inspection documentation must include:

- The MPDES permit authorization number.
- The inspection date and time.
- The name and signature of the qualified inspector.
- Weather conditions at the time of the inspection to include rainfall or snowmelt event information.
- The type of inspection to include explanation for a delay.
- A description of any storm water and non-storm water discharges occurring at the time of the inspection. If an unauthorized non-storm water discharge is observed corrective actions must be taken as required by Part 2.7 and documented as required by Part 3.1.6.3.
- The location and description of any:
  - Control measures needing maintenance or repairs and the associated potential pollutant source.
  - Control measures that need replacement and the associated potential pollutant source.
  - Unidentified potential pollutant sources.
  - Previously unidentified discharges of pollutants from the site.
  - Observations of obvious indicators of storm water pollution.
  - Incidents of noncompliance observed (Part 4).
  - Corrective action(s) required consistent with Part 2.7, including any additional control measures needed to comply with the permit requirements.
- Any additional industrial sector or subsector-specific documentation requirements per Part 3.4.
- If applicable, confirmation of SWPPP updates and revisions as required in Part 3.1.
- A statement signed and certified by the SWPPP Administrator.

For consistency and to streamline documentation, the permittee may include:

- Corrective action reporting required information in accordance with Part 2.7.3.4

The permittee is not required to submit the routine facility and significant storm event inspection findings to the Department, unless specifically requested to do so.

2.5 Monitoring Procedures

Permittees must collect storm water samples and complete either benchmark monitoring or indicator monitoring (Part 2.6). The following monitoring procedures apply to all permittees, regardless of monitoring type. Monitoring must be completed for storm events that result in actual discharge within thirty minutes of initial discharge, and data must be submitted to the Department quarterly. Samples are taken from monitored outfalls. Additional industrial sector or sub-sector monitoring requirements may be found in Part 3.4.

2.5.1 Monitored Outfalls

Outfalls are locations where storm water discharges, or there is the potential for storm water to discharge, to state water and/or where storm water leaves the industrial site. Outfalls can include discharges from conveyances such as pipes, tunnels, or swales to state waters. Outfalls can also be identified in a general area where sheet flow of storm water discharges can occur. Sometimes the actual receiving waterbody may be some distance from the industrial site; in such cases, the facility's outfall can be location(s) where storm water discharges from the industrial site. Constructing a structural control measure such as a berm or barrier where there is a potential to discharge storm water off-site does not eliminate the outfall and the location is required to be identified as an outfall.

An outfall is the place where a point source discharges effluent into the receiving water. Although the monitoring location might or might not be at the actual point of discharge, samples taken at the monitoring location should be representative of the discharge. For each outfall, there typically is at least one monitoring location. All outfalls and/or potential outfalls must be identified by the permittee.

2.5.1.1 Substantially Identical Outfalls

Monitoring requirements apply to each outfall authorized by this permit, except as otherwise exempt from monitoring upon Department approval as a substantially identical outfall (SIO). For authorizations under this permit, the permittee must identify all outfalls in the NOI-SWI form and indicate "substantially identical outfalls". If the facility has two or more outfalls that discharge substantially identical effluents, based on the similarities of the general industrial activities and control measures, exposed materials that may contribute pollutants to storm water, and runoff coefficients of their drainage areas, the permittee may request to monitor the effluent of just one of the outfalls and report that the results also apply to the SIO(s). As required in Part 3.1, the SWPPP must identify each outfall authorized by this permit and describe the rationale for any SIO determinations.

2.5.2 Commingled Discharges

If discharges authorized by this permit commingle with discharges not authorized under this permit, any required sampling of the authorized discharges must be performed at a point before they mix with other waste streams.

2.5.3 Storm Event Characterization Requirements

Required monitoring must be performed on storm events that result in actual discharge from the site. In the case of snowmelt, the monitoring must be performed at a time when a measurable discharge occurs from the facility site.

The following information must be for all storm water discharges that are sampled:

- Whether the sample was from a rainfall or snowmelt event.
- For a rainfall event, the estimated duration (in hours) of the event sampled, and measurements or estimates (in inches) of the rainfall event that generated the sampled runoff.

Storm Water Characterization Reporting[1]			
Event Type	Unit	Duration	Amount
Rainfall	Y/N	Estimated hours/days	Estimated inches
Snowmelt	Y/N	--	--

[1] This information must be reported for all storm water discharges which are sampled, including both benchmark and indicator monitoring

2.5.4 Sampling Requirements

The permittee must conduct storm water sampling in accordance with 40 CFR Part 136. Samples and measurements must be representative of the volume and nature of the monitored discharge from the industrial activity. Monitoring must be conducted for the specified parameters and at the specified frequency, at a minimum. Samples must be collected at the point of discharge or the last point of control after treatment and prior to discharge to receiving water (Part 2.5.1). Results must be reported on a Net Discharge Monitoring Report (NetDMR) by the 28th of the month following the quarterly reporting period.

The Department reserves the right to require storm water sampling, testing, and reporting on a case-by-case basis and in addition to any industrial sector or subsector requirements. If the Department determines additional sampling, testing, and reporting are required, these additional requirements will be outlined in the facility specific authorization letter.

2.5.4.1 Sampling Types

For all discharges, sampling data shall be obtained by collecting a grab sample. The grab sample shall be collected during the first thirty minutes of discharge, and collection of the grab sample shall not exceed fifteen minutes. If it is not possible to collect the sample within the first thirty minutes of discharge, the sample must be collected as soon as practicable after the first thirty minutes and the permittee must document why it was not possible to take the sample within the first thirty minutes.

A composite sample may be required or allowed by the Department on a site-by-site basis. If required or allowed, composite samples may be either flow-weighted or time-weighted.

2.5.4.2 Delayed or No Discharge Reporting

In the event storm water is detained at the facility (such as in a detention pond/area or storm water control structure), and a discharge is manually released later, the permittee must conduct all monitoring at the time of the release and record the storm event information (Part 2.5.3).

If no discharge occurs during the reporting period, then “No Discharge” shall be reported on NetDMR.

2.5.4.3 Non-Detect Reporting

In the case of non-detect results, report the Method Detection Limit (MDL) or Reporting Limit (RL) using a less-than (“<”) qualifier on the DMR. If there is more than one sample (i.e., >1 quarterly samples), use the MDL or RL in any calculations and report the results using a less-than (“<”) qualifier on the DMR. If reporting non-detects, the analyses must achieve Required Reporting Values (RRVs) listed in DEQ Circular 7, if available.

For samples below the method detection limit, use the method detection limit (not zero) to calculate average quarterly benchmark monitoring results. If a sample is reported below the RRV, report "non detect" on DMRs, but use the RRV or the method detection limit (whichever is lower) to calculate averages.Ex

2.5.5 Monitoring Periods

Monitoring requirements begin in the first full quarter following the effective date of the facility’s authorization under this permit. Permittees with quarterly storm water monitoring must take samples at least once in each of the following three-month intervals:

- January 1 – March 31
- April 1 -June 30
- July 1 – September 30
- October 1 – December 31

2.5.6 Monitoring for Authorized Non-Stormwater Discharges.

The permittee is only required to monitor allowable non-stormwater discharges (Part 1.1.2) when they are commingled with stormwater discharges associated with industrial activity.

2.6 Required Monitoring

Permittees must collect storm water samples and complete either benchmark monitoring or indicator monitoring. Benchmark monitoring is required for facilities associated with specific Standard Industrial Classification (SIC) codes. Indicator monitoring is for all other facilities with SIC codes that do not

require benchmark monitoring in Part 3.4. See Table 2.6-A for a summary of which subsectors require which type of monitoring.

Unless otherwise specified, samples must be analyzed consistent with 40 CFR Part 136 analytical methods that are sufficiently sensitive for the monitored parameter.

Table 2.6-A: Monitoring Types

Monitoring Type	Parameter	Applicable Subsectors[1]	Frequency	Duration	Follow-up
Indicator	pH, TSS, COD	B2, C5, D2, E3, F5, I1, J3, L2, N2, O1, P1, R1, T1, U3, V1, W1, X1, Y2, Z1, AB1, AC1, and AD1	Quarterly	Entirety of permit coverage	None
Benchmark	See Part 3.4	A1, A2, A3, A4, B1, C1, C2, C3, C4, D1, E1, E2, F1, F2, F3, F4, G1, G2, H1, J1, J2, K1, L1, M1, N1, Q1, S1, U1, U2, Y1, AA1, AA2	Quarterly	Entirety of permit coverage	Corrective actions (Part 2.7)

[1] Monitoring requirements for each subsector can be found in Part 3.4.

2.6.1 Indicator Monitoring

This permit requires indicator monitoring of stormwater discharges for three parameters – pH, Total Suspended Solids (TSS), and Chemical Oxygen Demand (COD). Indicator monitoring data will provide the Department and the permittee with a baseline and comparable understanding of industrial stormwater discharge quality and potential water quality problems.

The indicator monitoring parameters are "report-only" and do not have thresholds or baseline values for comparison, therefore no follow-up action is triggered or required under this part. The requirement in Part 2.3.1 that stormwater discharges be controlled so that the receiving water will meet applicable water quality standards still applies.

The permittee may find it useful to evaluate and compare the indicator monitoring data over time to identify any fluctuating values and why they may be occurring, and to further inform any revisions to the SWPPP/BMPs if necessary.

Indicator monitoring is report-only and is neither benchmark monitoring nor an effluent limitation. Instead, it is a permit condition. Thus, failure to conduct indicator monitoring is a permit violation.

2.6.1.1 Applicability and Schedule of Indicator Monitoring

- *Applicability*

  Operators in the following subsectors must monitor storm water discharges for pH, TSS, and COD (in addition to sector-specific requirements in Part 3.4): B2, C5, D2, E3, F5, I1, J3, L2, N2, O1, P1,R1, T1, U3, V1, W1, X1, Y2, Z1. AB1, AC1, and AD1. Samples must be analyzed consistent with 40 CFR Part 136 analytical methods.

- *Schedule*

  The permittee must conduct indicator monitoring of stormwater discharges for pH, TSS, and COD each quarter, beginning in the first full quarter of permit coverage (Part 2.5.5).

2.6.2 Benchmark Monitoring

The permittee shall monitor the benchmark parameters specified for the industrial sector or subsector in Part 3.4, based on the SIC codes that apply to the industrial activities occurring on-site. Benchmark monitoring results shall be used by permittees to self-evaluate the overall effectiveness of the control measures and improve the quality of storm water discharges.

The benchmark thresholds are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. However, a benchmark exceedance suggests that corrective actions are needed (Part 2.7)

Benchmark monitoring samples are collected from storm events that result in actual discharge. Samples must be taken in the first thirty minutes of discharge. Data must be submitted to the Department quarterly. If more than one sample is collected during one of the quarters, an average of the results is to be reported on the DMR forms to represent the quarterly monitoring result. Samples must be analyzed using test procedures with quantitation limits at or below benchmark values for all benchmark parameters for which the permittee is required to sample. See Part 2.5.4 for sampling requirements.

Benchmark Monitoring					
Benchmark Parameter[1][2]	Benchmark Concentration	Sample Location	Sample Frequency	Sample Type	Reporting Requirement
Determined by Facility Subsector	Determined by Parameter	Effluent	1/quarter	Grab	Quarterly Average [3]
					Rolling 4 Quarter Average[4]

[1] For Oil & Grease benchmark monitoring, use EPA method 1664 (hexane extraction method) or other 40 CFR 136 approved method.
[2] For hardness-dependent benchmark concentrations, the permittee must submit to the Department with the first benchmark report under this permit a hardness value, established consistent with the procedures in Part 3.5, which is representative of the receiving water(s).
[3] If more than one sample is collected during one of the quarters, an average of the results is to be reported on the DMR forms to represent the quarterly monitoring result.
[4] If the rolling average of the four most recent quarterly monitoring values for any parameter exceeds the benchmark, in accordance with Part 2.6.2.2 the permittee must review the selection, design, installation, and implementation of the control measures to determine if modifications are necessary to meet the effluent limits in this permit.

2.6.2.1 Applicability of Benchmark Monitoring

The permittee must monitor stormwater discharges for any benchmark parameters specified for the industrial sector(s), both primary industrial activity and any co-located industrial activities, applicable to your discharge (Part 3.4). If the facility is in one of the industrial sectors subject to benchmark thresholds that are hardness-dependent, the permittee must include a hardness value in the application package, established consistent with the procedures in Part 3.5 that is representative of the receiving water.

Samples must be analyzed consistent with Part 2.5.4.

2.6.2.2 Evaluation of Benchmark Monitoring Data

If the rolling average of the 4 most recent quarterly monitoring values for any parameter exceeds an applicable benchmark, the permittee must review the selection, design, installation, implementation, and maintenance of the control measures to determine if modifications are necessary to meet the effluent limits in this permit. If less than 4 benchmark samples have been taken, but the results are such that an exceedance of the 4 quarter average is mathematically certain (i.e., if the sum of quarterly sample results

to date is more than 4 times the benchmark level) this is considered a benchmark exceedance, triggering the review in Part 2.7.2.

See Part 2.5.4.3 for instructions on how to average benchmark results with non-detects reported.

2.6.2.3 Naturally Occurring Background Pollutant Levels

If the average concentration of a pollutant exceeds a benchmark value and the average concentration of the benchmark monitoring results is less than or equal to the concentration of that pollutant in the "naturally occurring" background (defined in Part 5), then the permittee may determine that the exceedance of the benchmark is attributable solely to the presence of that pollutant in the "naturally occurring" background. This determination is subject to Department review. Upon this determination, the permittee:

- Must follow corrective action requirements in accordance with Part 2.7.
- Document and maintain with this determination in the SWPPP (Part 3.1) with supporting sampling and rationale for concluding that benchmark exceedances are in fact attributable solely to naturally occurring background pollutant levels on a parameter-specific basis.

2.7 Corrective Actions

Corrective actions are the deliberate remediation and elimination actions that the permittee takes as triggered by specific conditions, outlined below, to ensure that this permit's effluent limits are met and pollutant discharges are minimized and corrected. Corrective actions are overseen or performed by the SWPPP Administrator.

2.7.1 Conditions Requiring Review and Revision to Eliminate Problem

If any of the following conditions occur, the permittee must review and revise the selection, design, installation, implementation, and maintenance of the control measures to ensure that the condition is eliminated and will not be repeated in the future:

- An unauthorized release or discharge (e.g., spill, leak, or discharge of non-storm water not authorized by this or another MPDES permit) occurs at the facility.
- The permittee becomes aware, or the Department determines, that the control measures are not stringent enough for the discharge to meet applicable water quality standards.
- The permittee finds in the routine facility inspection or significant storm event inspection that the control measures were never installed, were installed incorrectly, or are not being properly operated and maintained.
- An inspection or evaluation of the facility by a Department representative determines that modifications to the control measures are necessary to meet the effluent limits in this permit.
- Whenever a visual assessment shows evidence of storm water pollution.

2.7.2 Conditions Requiring Review to Determine if Modifications Are Necessary

If any of the following conditions occur, the permittee must review the selection, design, installation, implementation, and maintenance of the control measures to determine if modifications are necessary to meet the effluent limits in this permit:

- Construction or a change in design, operation, or maintenance at the facility changes the potential pollutant sources discharged in storm water from the facility, or increases the quantity of potential pollutants discharged.
- The rolling average of the 4 most recent quarterly benchmark monitoring values for any parameter exceeds an applicable benchmark (Part 2.6.2). If less than 4 benchmark samples have been taken, but the results are such that an exceedance of the 4-quarter average is mathematically certain (i.e., if the sum of quarterly sample results to date is more than 4 times the benchmark level) this is considered a benchmark exceedance, triggering this review.

Upon review, the permittee must either:

- Make the necessary modifications until the permittee has completed 4 quarters of monitoring for which the average does not exceed the benchmark.
- Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the technology-based effluent limits or are necessary to meet the water-quality-based effluent limitations in Part 2 of this permit. Rationale must be documented for these conclusions and reported. These conclusions are subject to Department review.
- Make a determination that naturally occurring background pollutant levels are attributable to the benchmark exceedance in accordance with Part 2.6.2.3. Background sampling and rationale must be documented for these conclusions and reported.

Also, if after modification of the control measures and conducting 4 additional quarters of monitoring, the rolling average still exceeds the benchmark (or if an exceedance of the benchmark by the 4-quarter average is mathematically certain prior to conducting the full 4 additional quarters of monitoring), control measures must be reviewed again and take one of the two actions above.

2.7.3 Corrective Actions and Deadlines

2.7.3.1 Discovery Actions

Upon discovery of any condition requiring corrective action, the permittee must take all reasonable steps necessary to minimize or prevent the discharge of pollutants until final corrective actions are determined and implemented. The permittee must take these reasonable steps on the same day of the discovery or within 24 hours of making such discovery.

Based on the severity of the condition triggering corrective action, separate and additional reporting may be required by the standard conditions in Part 4 of this permit.

2.7.3.2 Correction Schedule

If determined that additional actions are necessary beyond those implemented upon discovery, the permittee must outline and complete the corrective actions (e.g., install a new or modified control and make it operational, complete the repair) before the next storm event if possible, and within 14 calendar days from the time of discovery of the corrective action condition. The 14-day timeframe is not a grace period and progress of completion is subject to review by the Department.

If it is infeasible to complete the corrective action within 14 calendar days, the permittee must document why it is infeasible to complete the corrective action within the 14-day timeframe. The permittee must outline the schedule for completing the corrective action, which must be done as soon as practicable after the 14-day timeframe but no longer than 45 days after discovery. The 45-day ultimate deadline is not a grace period and progress of completion is subject to review by the Department.

Based on the severity of the condition triggering corrective action, separate and additional reporting may be required by the standard conditions in Part 4 of this permit.

2.7.3.3 SIO Corrective Actions

If the event triggering corrective action is linked to an outfall that represents other SIOs (Part 2.5.1.1), the permittee must assess the need for corrective action for each outfall represented by the outfall. Any necessary changes to control measures that affect these other substantially identical outfalls must also be made within the same timeframe as the primary outfall.

2.7.3.4 Corrective Action Reporting

Within 24 hours of discovery of any condition listed in Parts 2.7.1 and 2.7.2, the permittee must document the following information:

- Date and time the condition was identified.
- Identification, description, and location of the condition triggering the need for corrective action review.
- Description of actions taken upon discovery.

Within 14 days of discovery of any condition listed in Parts 2.7.1 and 2.7.2 the permittee must document the following information:

- Summary of corrective action taken or to be taken (or, rationale for triggering conditions identified in Part 2.7.2 where the permittee determines that corrective action is not necessary).
- If applicable, the expected timeframe of subsequent actions (as soon as possible up to 45 days) required for the corrective action and the actual subsequent dates of completion.
- Date corrective action completed.
- Confirmation that corrective actions have been completed for SIOs, if applicable.
- Confirmation of SWPPP updates and revisions (Part 3.1), if applicable.
- Confirmation of additional noncompliance required reporting (Part 4), if applicable.
- A statement signed and certified by the SWPPP Administrator.

If all required information is documented, the permittee may include corrective action(s) reporting required information (Part 2.7.3.4) with Routine Facility and Significant Storm Event Inspection Documentation (Part 2.4.5).

2.7.3.5 Effect of Corrective Action

If the event triggering the corrective action review is a permit violation, correcting it does not remove the original violation. Additionally, failing to take corrective action in accordance with this section is an additional permit violation. The Department will consider the appropriateness and promptness of corrective action in determining potential enforcement responses to permit violations.

2.8 Facility Recordkeeping Requirements

At the facility site, the permittee must retain:

- A copy of this permit (accessible electronic is acceptable).
- A copy of the completed and signed NOI form including relevant correspondence with the Department and modification submittals.
- A copy of the Department's Confirmation Letter.
- A copy of the signed and most up to date SWPPP, including revisions and updates, and attachments (Part 3.1).
- Site map(s) reflecting up-to-date site conditions per SWPPP requirements.
- BMP installation, design, and maintenance specifications/standards for all BMPs installed and detailed in the SWPPP and/or inspection records.
- All inspection reports, including the Routine Facility Inspection Reports and Significant Storm Event Inspections (Part 2.4.5).
- All corrective action reports (Part 2.7.3.4).
- All Annual Reports (Part 2.9.3).
- A copy of all DMRs (accessible electronic is acceptable).
- All reports of noncompliance (Part 4).
- A copy of all correspondence notifying the Department of a change in the facility contact person/position (Part 2.9.2).

- Records of employee training (Part 2.2.8).
- The sage grouse consultation letter, as applicable.

If no permanent offices/buildings are located at the facility site, copies of all required recordkeeping documents must be retained at either the office of the current contact person on file and/or at the office of the SWPPP Administrator, and must be brought to the facility site.

These documents are to be made available at the site immediately upon request from a Department official, or local official. These records are to be maintained by the permittee for a period of three years.

2.9 Reporting Requirements

2.9.1 Discharge Monitoring Reports

All monitoring data collected pursuant to Part 2.6 must be submitted to the Department no later than the 28th day of the month following the reporting period. The monitoring requirements will be prepopulated on the electronic Discharge Monitoring Report (DMR) form based on the information provided in the NOI. The data must be submitted using EPA's NetDMR system (https://netdmr.zendesk.com/hc/en-us), unless a waiver from electronic reporting has been granted, in which case the permittee may submit a paper DMR form.

2.9.2 Notification of Facility Contact Changes

The permittee must notify the Department in writing of any change of the designated facility contact person/position, mailing address, and/or telephone number within 15 calendar days of this change.

2.9.3 Annual Report

An Annual Report Form must be completed and submitted to DEQ for each calendar year of active coverage under this permit. This Annual Report must be completed using a standard Department form to include a summary of the past year's:

- Routine facility inspections documentation.
- Significant storm event inspection documentation.
- Corrective actions performed.
- Incidents of noncompliance observed.
- Benchmark and/or indicator monitoring results.
- Required revisions to the SWPPP.

The Annual Report for a given calendar year must be completed by February 1 of the year following that respective calendar year. The permittee is waived from Annual Report requirements for a given calendar year if authorization to discharge was obtained less than three months before the end of that respective calendar year. The Annual Report must be certified and signed by the permit signatory in accordance with Part 4.18 of this permit.

3 SPECIAL CONDITIONS

3.1 Storm Water Pollution Prevention Plan - General Requirements

The following section pertains to all permittees covered under the MSGP. See Part 3.4 for industrial sector and sub-sector specific requirements.

The Storm Water Pollution Prevention Plan (SWPPP) is a document that must be developed and implemented in accordance with good engineering selection and design, industry standards, hydrologic

principles, and pollution control practices to minimize and control potential pollutants in storm water associated with industrial activity and meet this permit's effluent limits.

The SWPPP must meet the following objectives:

- Provide a site description of the nature of industrial activities at the permittee's facility.
- Identify and describe all potential pollutant sources which may affect the quality of storm water discharges associated with industrial activity.
- Identify and describe the control measures to reduce and eliminate potential pollutant sources in storm water discharges associated with industrial activity and to ensure compliance with the effluent limits in this permit including controls for potential discharges to impaired waterbodies.
- Identify and describe any additional industrial sector or subsector-specific requirements per Part 3.4.
- Identify and clearly describe all required monitoring, inspection, and corrective action schedules and procedures implemented at the facility and in accordance with permit requirements.
- Attach any required and/or referenced supporting documentation including maps, plans (SPCC, EMS, etc.), specifications, records, and logs.
- Signed by the SWPPP Administrator or permit signatory (Part 4.18).

The SWPPP must include the general requirements in Part 3.1 and the sector-specific requirements in Part 3.4.

If the SWPPP was prepared under a previous version of the MSGP, it must be reviewed and updated in accordance with Part 1.2.2.

The SWPPP must be developed prior to authorization under this permit and implemented and maintained upon permit coverage. The SWPPP must be maintained to reflect up-to-date facility activities and operations through monitoring, inspections, corrective actions, and noncompliance reporting. Required recordkeeping documents may be used to supplement the SWPPP.

3.1.1 SWPPP Preparation

The SWPPP shall be prepared to industry standards in accordance with good engineering practices. The SWPPP must be developed by a qualified person, and must be signed and certified by the permit signatory or a duly authorized representative per Part 4.18.

A qualified person is a person knowledgeable in the principles and practices of industrial storm water controls and pollution prevention, and possesses the education and ability to assess conditions at the permittee's industrial facility that could impact storm water quality, and the education and ability to assess the effectiveness of storm water controls selected and installed to meet the requirements of this permit. A qualified person may be a person(s) on the permittee's staff and/or a hired third-party/consultant.

If the Department determines that the SWPPP is inadequate or not in compliance with Part 2 of this permit, the permittee may be required to have the SWPPP reviewed, updated as necessary, and certified by a Professional Engineer, or for Sector G, H or J, by a Professional Geologist, with the education and experience necessary to prepare an adequate SWPPP for the facility and protect water quality.

3.1.2 SWPPP Administrator

The SWPPP Administrator is the lead responsible person for ensuring the development, implementation, and maintenance of the SWPPP, and will serve as the primary contact person regarding the SWPPP. The SWPPP administrator must be either the permit signatory or a duly authorized representative (Part 4.18).

The SWPPP Administrator must be knowledgeable and skilled within the following concepts to serve their role and perform requirements of the SWPPP:

- MPDES permitting requirements to include, but not limited to, applicability, application procedures, SWPPP elements, standard conditions, and termination conditions.
- Local permitting requirements.
- Sage Grouse requirements based on location of the project.
- Onsite knowledge of the facility, its day-to-day operations including all industrial materials and activities, and the overall site layout including location of storm water outfalls.
- Knowledge of potential pollutants generated from the facility's industrial materials and activities.
- Knowledge of storm water pollution prevention principles and practices including the minimum requirements for control measures as outlined in Parts 2.1 and 2.2 of this permit and industry specific control measures in Part 3.4 of this permit.
- An overview of what is in the SWPPP and access to the SWPPP and site map.
- The location of all controls on the site required by this permit.
- Knowledge of the appropriate selection, installation, function, and maintenance/repairs of all controls on site to evaluate effective operating condition in accordance with any developed and/or manufacturers plans and specifications.
- Ability to develop, document, and maintain all SWPPP elements, including the site map(s) required by this permit, into a single cohesive and comprehensive facility-specific plan.
- Implementation skills for all permit requirements for inspections, corrective actions, and required recordkeeping to include when and how to conduct inspections, record applicable findings, initiate corrective actions, and report violations and/or noncompliance.

Based on the required knowledge and skills, the SWPPP Administrator may also serve automatically as the role of a qualified inspector.

3.1.3 Storm Water Pollution Prevention Team

The storm water pollution prevention team is responsible for assisting in developing and revising the facility's SWPPP as well as maintaining control measures and taking corrective actions where required. The permittee must document the following storm water pollution prevention team information:

- Identify the staff members (by name or title) including the SWPPP Administrator.
- Outline an organizational chart of the members.
- Identify any specified individual responsibilities.
- Document the formal mechanisms for communication and coordination between staff members (e.g. meetings, email updates, etc.) to ensure cooperation necessary to facilitate permit compliance and timely reporting.

Each member of the storm water pollution prevention team must have ready access to either an electronic or paper copy of applicable portions of this permit, the most updated copy of the SWPPP, and other relevant documents or information that must be kept with the SWPPP. If the facility culture or scope of business is not conducive to a storm water pollution prevention team, documentation is required with rationale and confirmation of the SWPPP Administrator's full SWPPP responsibility.

3.1.4 Site Description

The SWPPP must provide a narrative description of the nature of the industrial activities at the permittee's facility. Include a detailed description of the procedures, methods, process flows, equipment and materials, and relative timeframes (including seasonal periods of inactivity) of activities and operations that contribute to the nature of the permittee's industrial facility.

3.1.5 Site Map

The SWPPP must include one or a series of legible maps/plans of sufficient size and scale that clearly show current facility conditions. Multiple site maps/plans are encouraged for clarity as necessary.

At a minimum, the SWPPP site maps/plans must include the following:

- The site boundaries for the facility or activity and the size of the property in acres.
- The location and extent of significant structures and impervious surfaces.
- Locations of potential pollutant sources identified under Part 3.1.6.1.1.
- Locations of the following activities where such activities are exposed to precipitation:
  - Fueling stations
  - Vehicle and equipment maintenance and/or cleaning areas
  - Loading/unloading areas
  - Locations used for the treatment, storage, or disposal of wastes and the associated waste identification
  - Liquid storage tanks with associated liquid identification
  - Processing and storage areas
  - 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
  - Major permanent facility structures
  - Transfer areas for substances in bulk
  - Machinery
- Locations of salt storage area, if applicable.
- Locations where potential spills and leaks have the potential to occur,
- Locations of spill response kits and response contact information,
- Locations where spills or leaks identified under Part 3.1.6.1.1 have occurred.
- Locations of all existing storm water control measures.
- Locations of other potential pollutant-generating activities not specified elsewhere.
- Drainage pattern(s) and flow directions (use arrows) of storm water runoff and run-on including lines showing boundaries between different drainage areas.
- Locations and sources of run-on to the facility boundaries from adjacent property that may contain potential pollutants.
- Locations and identification of all receiving waters in the immediate vicinity of the facility including wetlands. Indicate which waterbodies are listed as impaired.
- Locations of all storm water conveyances including ditches, pipes, and swales.
- Locations of all storm water outfall monitoring points.
- Locations of all storm water inlets and outfalls, including the unique identification code for each outfall (use the same code as on any historical Discharge Monitoring Report forms), identification of any approved substantially identical outfalls under Parts 3.1.11, and an approximate outline of the areas draining to each outfall.
- If applicable, municipal separate storm sewer systems, and where storm water discharges to them.
- Locations and descriptions of all non-storm water discharges identified under Part 2.2.9.
- Map scale.
- North arrow.
- Map legend.

3.1.6 Areas with Potential Pollutant Sources

The permittee must list and describe all areas at the facility where industrial materials or activities are exposed to storm water and from which allowable non-storm water discharges originate. When

developing the list of areas, the permittee must consider industrial materials or activities including, but not limited to:

- Material handling equipment or activities
  - Material handling activities include, but are not limited to, the storage, loading and unloading, transportation, disposal, or conveyance of any raw material, intermediate product, final product or waste product.
- Industrial machinery.
- Raw materials.
- Industrial production and processes.
- Intermediate products, by-products, final products, and waste products.

For each area identified above as a potential pollutant source, the description must include the information in Parts 3.1.6 and 3.1.7.

3.1.6.1 Activities in the Identified Area

A list of the industrial activities exposed to storm water in each identified area (e.g., material storage; equipment fueling, maintenance, and cleaning; cutting steel beams).

3.1.6.1.1 Pollutants Associated with Each Industrial Activity

The permittee must list of the pollutant(s) or pollutant constituents (e.g., crankcase oil, zinc, sulfuric acid, and cleaning solvents) associated with each identified activity in each area listed at the facility that could be exposed to storm water. The pollutant list must include materials that have been handled, treated, stored, or disposed, and that have been exposed to storm water in the 3 years prior to the date of authorization under this permit.

3.1.6.2 Previous Spills and Leaks in the Identified Area

The permittee must document spills and leaks of oil or toxic or hazardous pollutants that occurred at exposed areas, or that drained to a storm water conveyance, in the 3 years prior to the date of authorization under this permit.

Spills and leaks include, but are not limited to, releases of oil or hazardous substances in excess of quantities that are reportable under CWA Section 311 (see 40 CFR 110.6 and 40 CFR 117.21) or Section 102 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 USC §9602. This permit does not relieve the permittee of the reporting requirements of 40 CFR Part 110, 40 CFR Part 117, and 40 CFR Part 302 relating to spills or other releases of oils or hazardous substances. The discharge of hazardous substances, as defined in ARM 17.30.1304(35), in the storm water discharge(s) from a facility shall be minimized in accordance with the applicable SWPPP for the facility and, in no case during any 24-hour period shall the discharge(s) contain a hazardous substance equal to or in excess of reporting quantities.

3.1.6.3 Non-Storm Water Discharges

The permittee must document the evaluation for the presence of non-storm water discharges and that all discharges not allowed under this permit or through another MPDES permit authorization have been eliminated.

If a non-storm water discharge is observed during a routine or significant storm event inspection, the inspector must note:

- Person(s) conducting the evaluation.
- The date of the evaluation.
- The nature of non-storm water discharges observed, and their source locations.

- The actions taken, such as a list of control measures used to eliminate unauthorized discharges, if any were identified.
  - For example, a floor drain was sealed, a sink drain was re-routed to sanitary, or an MPDES permit application was submitted for an unauthorized cooling water discharge.

3.1.6.4 Salt Storage Area

If applicable in the identified area, the permittee must document the location of any storage piles containing salt used for deicing or other commercial or industrial purposes. These areas must be identified on the site map.

3.1.7 Description of Control Measures

The permittee must list the control measures (best management practices) that have been installed and implemented at the facility site to achieve the non-numeric effluent limits in Part 2.2, the water quality-based effluent limits in Part 2.3, and any requirements in Part 3.4. The location of these control measures must be identified on the site map in accordance with Part 3.1.5.

For each control measure listed, the permittee must:

- Describe the required control measure selection and design considerations in Part 2.1.1. If storm water sampling data was considered, the permittee must provide a narrative description (and may include data tables/figures) that adequately summarizes the collected sampling data to support the selection and design of control measures.
- Describe how the control measures at the facility site addresses both the pollutant sources identified in Part 3.1.6 and any storm water run-on that commingles with any discharges covered under this permit.
- Include design, installation, and maintenance criteria for temporary and permanent structural control measures (detail drawings, cross-sections, manufacturer's specifications/standards, narrative description, etc.).

Also, the permittee must list any additional erosion and sediment controls if applicable:

- Local sediment and erosion controls including a description of requirements/
- Sage grouse controls (the consultation letter attached to the SWPPP will meet the requirements for this section).

3.1.8 Required Schedules and Procedures for Control Measures

In accordance with the control measures in Part 2, the following must be documented in the SWPPP:

- Good Housekeeping (Part 2.2.2) – A schedule or the convention used for determining when pickup and disposal of waste materials occurs.
- Maintenance (Part 2.2.3) – Preventative and routine maintenance procedures, including regular inspections, testing, maintenance, and repair of all industrial equipment and systems, and control measures, to avoid situations that may result in leaks, spills, and other releases, and any back-up practices in place should a runoff event occur while a control measure is off-line. The SWPPP must include the schedule or frequency for maintaining all control measures used to comply with the effluent limits in Part 2.
- Spill Prevention and Response Procedures
  - To prevent and respond to spills and leaks (Part 2.2.4), the permittee should have procedures for:
    - Plainly labeling containers.
    - Material storage and handling.
    - Expeditiously stopping, containing, and cleaning up leaks, spills, and other releases.
    - Effective and rapid spill response actions for employees based on the identification of a spill or leak, maintenance, location, and use of spill response kits, notification of appropriate

facility personnel, emergency response agencies, and regulatory agencies, and required documentation.
    - Additional procedures as permittee sees fit.
  - The permittee may reference the existence of other plans for Spill Prevention Control and Countermeasure (SPCC) developed for the facility under Section 311 of the CWA, or BMP programs otherwise required by an MPDES permit for the facility, or other Department spill protocol, provided that a copy of the referenced plan is onsite and available for review consistent with Part 2.8.

3.1.9 Employee Training

The permittee must document the facility customized employee training to meet the requirements in Part 2.2.8, including but not limited to;

- The content, materials, and procedures for all required training.
- The frequency and/or schedule of each training (at a minimum annual) including upon new hire.
- The employees (titles/positions/roles) who will receive each training.

The permittee will maintain a training log for each training session to include:

- Date of training.
- Name of the trainer(s) and title/position.
- Sign in sheet or attendance roster.
- Documentation of the topics covered and/or copies of the training materials.

3.1.10 Pertaining to Inspection Program – Visual Monitoring

The permittee must document in the SWPPP an Inspection Program to ensure that all controls are functional and in place to prevent or reduce pollutant runoff from the facility. For each inspection type, routine facility inspections and significant storm inspections, the permittee must document at a minimum:

- Identification of qualified inspectors
- Procedures for conducting inspections
- Schedules for conducting inspections
- Appropriate inspection documentation in accordance with all permit requirements

For consistency and to streamline documentation, the permittee may include corrective actions reporting required information in accordance with Part 2.7.3.4 with inspection documentation.

3.1.11 Pertaining to Benchmark and Indicator Monitoring

The permittee must document in the SWPPP the procedures for conducting the benchmark or indicator monitoring specified by this permit, including any additional sub-sector requirements in Part 3.4 or required analytical monitoring by the Department. The SWPPP must document:

- Locations where samples are collected.
- Parameters for sampling and the frequency of sampling for each parameter.
- Schedules for monitoring.
- Any benchmark control values applicable to discharges from each outfall.
- Procedures (e.g., responsible staff, logistics, laboratory to be used, etc.) for gathering storm event data, as specified in Part 2.5.3.

If the substantially identical outfall exception is approved and used for benchmark monitoring (Part 2.5.1.1), the following must be documented in the SWPPP:

- Location of each of the SIO.
- Description of the general industrial activities conducted in the drainage area of each outfall.
- Description of the control measures implemented in the drainage area of each outfall.

- Description of the exposed materials located in the drainage area of each outfall that are likely to be contributors of pollutants to storm water discharges.
- An estimate of the runoff coefficient of each of the drainage areas (low = under 40%; medium = 40 to 65%; and high = above 65%).
- Why the outfalls are expected to discharge substantially identical effluents.

3.1.12 Pertaining to Water Quality Controls for Discharges to Impaired Waterbodies

The permittee must document how the permittee will control potential storm water discharges from their facility to impaired waterbodies per Part 2.3.2 to include:

- Discharges to an Impaired Waterbodies with No Approved TMDL
  - The SWPPP must include a section that describes BMPs that target and reduce any discharges of the identified pollutants of concern to the corresponding impaired waterbodies.
- Discharges to an Impaired Waterbodies with an Approved TMDL
  - The SWPPP must include a section that describes BMPs that target and reduce any discharges of the identified pollutants of concern to the corresponding impaired waterbodies. Under this subsection of the MSGP, the permittee need only include the identified pollutants of concern in its SWPPP if the waterbodies are listed as impaired for such pollutants. The section submitted by the permittee must ensure that all discharges are consistent with the assumptions of any applicable TMDL wasteload allocation. All EPA approved TMDL wasteload allocations applicable to MPDES-regulated storm water industrial activities are incorporated by reference into this permit.

Permittees will be informed if any additional controls are necessary for discharges to protect beneficial uses or to be consistent that the assumptions of any available TMDL wasteload allocation. Such additional controls must be described within the permittee's SWPPP.

3.1.13 SWPPP Signature Requirements

The SWPPP must be signed and dated by the SWPPP Administrator or by the signatory according to the requirements in Part 4.18.

3.2 SWPPP Modifications and Updates

The permittee must modify the SWPPP whenever necessary to address any of the triggering conditions for corrective action in Part 2.7. Changes to the SWPPP document must be made in accordance with the corrective action deadlines in Part 2.7.3, and must be signed and dated by the SWPPP Administrator or the permit signatory (Part 4.18).

The SWPPP must be maintained and kept up to date to reflect current site conditions. SWPPP modifications or updates are not required to be submitted to the Department unless specifically requested by the Department (Part 4.8).

3.3 SWPPP Availability

The permittee must retain a complete copy of the current SWPPP required by this permit at the facility in any accessible format. A complete SWPPP includes any documents incorporated by reference and all documentation supporting the permit eligibility pursuant to Part 1.1, as well as the signed and dated certification page. Regardless of the format, the SWPPP must be immediately available to the Department, or an authorized representative at the time of an onsite inspection.

The current SWPPP or certain information from the current SWPPP must also be made available to the public (except any confidential business information or restricted information as identified by the permittee within the SWPPP). This may be achieved by the permittee providing a URL in the NOI-SWI

where the SWPPP can be found. and maintaining the current SWPPP at this URL. Alternatively, the Department may provide access to portions of the SWPPP to a member of the public upon request. To remain current, the permittee must report a summary of any modifications or updates to the SWPPP (originally submitted with the NOI-SWI) with each required annual report. The Department may require submittal of a complete copy of the most current SWPPP at any time to make available to the public.

3.4 Industrial Sector-Specific Requirements

The potential permit eligibility is limited to discharges from facilities in the sectors of industrial activity summarized in Table 3.4-A. However, the MSGP does not provide permit coverage for industrial facilities or activities whose storm water discharges are subject to federal Effluent Limitation Guidelines. The sector descriptions below are based on Standard Industrial Classification (SIC) Codes and Industrial Activity Codes. References to sectors in this permit refer to these groupings.

Table 3.4-A: Sectors of Industrial Activity (Facilities and Activities)

Subsector	SIC Code or Activity Code[1]	Activity Represented	Page
SECTOR A: TIMBER PRODUCTS			
A1	2421	General Sawmills and Planing Mills	41
A2	2491	Wood Preserving	
A3	2411	Log Storage and Handling	
A4	2426	Hardwood Dimension and Flooring Mills	
	2429	Special Product Sawmills, Not Elsewhere Classified	
	2431-2439 (except 2434)	Millwork, Veneer, Plywood, and Structural Wood (see Sector W)	
	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			
B1	2631	Paperboard Mills	43
B2	2611	Pulp Mills	
	2621	Paper Mills	
	2652-2657	Paperboard Containers and Boxes	
	2671-2679	Converted Paper and Paperboard Products, Except Containers and Boxes	
SECTOR C: CHEMICALS AND ALLIED PRODUCTS			
C1	2873-2879	Agricultural Chemicals	43
C2	2812-2819	Industrial Inorganic Chemicals	
C3	2841-2844	Soaps, Detergents, and Cleaning Preparations; Perfumes, Cosmetics, and Other Toilet Preparations	
C4	2821-2824	Plastics Materials and Synthetic Resins, Synthetic Rubber, Cellulosic and Other Manmade Fibers Except Glass	
C5	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			
D1	2951, 2952	Asphalt Paving and Roofing Materials	45
D2	2992, 2999	Miscellaneous Products of Petroleum and Coal	
SECTOR E: GLASS, CLAY, CEMENT, CONCRETE, AND GYPSUM PRODUCTS			
E1	3251-3259	Structural Clay Products	46
	3261-3269	Pottery and Related Products	
E2	3271-3275	Concrete, Gypsum, and Plaster Products	
E3	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			
F1	3312-3317	Steel Works, Blast Furnaces, and Rolling and Finishing Mills	48
F2	3321-3325	Iron and Steel Foundries	
F3	3351-3357	Rolling, Drawing, and Extruding of Nonferrous Metals	
F4	3363-3369	Nonferrous Foundries (Castings)	
F5	3331-3339	Primary Smelting and Refining of Nonferrous Metals	
	3341	Secondary Smelting and Refining of Nonferrous Metals	
	3398, 3399	Miscellaneous Primary Metal Products	
SECTOR G: METAL MINING (ORE MINING AND DRESSING)			
G1	1021	Copper Ore and Mining Dressing Facilities	50
G2	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			
H1	1221-1241	Coal Mines and Coal Mining-Related Facilities	58
SECTOR I: OIL AND GAS EXTRACTION AND REFINING			
I1	1311	Crude Petroleum and Natural Gas	61
	1321	Natural Gas Liquids	

	1381-1389	Oil and Gas Field Services	
SECTOR J: MINERAL MINING AND DRESSING			
J1	1442	Construction Sand and Gravel	62
	1446	Industrial Sand	
J2	1411	Dimension Stone	
	1422-1429	Crushed and Broken Stone, Including Rip Rap	
	1481	Nonmetallic Minerals Services, Except Fuels	
	1499	Miscellaneous Nonmetallic Minerals, Except Fuels	
J3	1455, 1459	Clay, Ceramic, and Refractory Materials	
	1474-1479	Chemical and Fertilizer Mineral Mining	
SECTOR K: HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL FACILITIES			
K1	HZ	Hazardous Waste Treatment, Storage, or Disposal Facilities, including those that are operating under interim status or a permit under subtitle C of RCRA	67
SECTOR L: LANDFILLS, LAND APPLICATION SITES, AND OPEN DUMPS			
L1	LF	All Landfill, Land Application Sites and Open Dumps	69
L2	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			
M1	5015	Automobile Salvage Yards	71
SECTOR N: SCRAP RECYCLING FACILITIES			
N1	5093	Scrap Recycling and Waste Recycling Facilities except Source-Separated Recycling	73
N2	5093	Source-separated Recycling Facility	
SECTOR O: STEAM ELECTRIC GENERATING FACILITIES			
O1	SE	Steam Electric Generating Facilities, including coal handling sites	78
SECTOR P: LAND TRANSPORTATION AND WAREHOUSING			
P1	4011, 4013	Railroad Transportation	81
	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			
Q1	4412-4499	Water Transportation Facilities	83
SECTOR R: SHIP AND BOAT BUILDING AND REPAIRING YARDS			
R1	3731, 3732	Ship and Boat Building or Repairing Yards	86
SECTOR S: AIR TRANSPORTATION FACILITIES			
S1	4512-4581	Air Transportation Facilities	88

SECTOR T: TREATMENT WORKS			
T1	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. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with section 405 of the CWA	92
SECTOR U: FOOD AND KINDRED PRODUCTS			
U1	2041-2048	Grain Mill Products	94
U2	2074-2079	Fats and Oils Products	
U3	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	
SECTOR V: TEXTILE MILLS, APPAREL, AND OTHER FABRIC PRODUCT MANUFACTURING; LEATHER AND LEATHER PRODUCTS			
V1	2211-2299	Textile Mill Products	96
	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 W: FURNITURE AND FIXTURES			
W1	2434	Wood Kitchen Cabinets	98
	2511-2599	Furniture and Fixtures	
SECTOR X: PRINTING AND PUBLISHING			
X1	2711-2796	Printing, Publishing, and Allied Industries	98
SECTOR Y: RUBBER, MISCELLANEOUS PLASTIC PRODUCTS, AND MISCELLANEOUS MANUFACTURING INDUSTRIES			
Y1	3011	Tires and Inner Tubes	100
	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	
Y2	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			
Z1	3111	Leather Tanning and Finishing	102
SECTOR AA: FABRICATED METAL PRODUCTS			
AA1	3411-3499 (except 3479)	Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services	103
	3911-3915	Jewelry, Silverware, and Plated Ware	
AA2	3479	Fabricated Metal Coating and Engraving	
SECTOR AB: TRANSPORTATION EQUIPMENT, INDUSTRIAL OR COMMERCIAL MACHINERY			
AB1	3511-3599 (except 3571-3579)	Industrial and Commercial Machinery, Except Computer and Office Equipment (see Sector AC)	106
	3711-3799 (except 3731, 3732)	Transportation Equipment Except Ship and Boat Building and Repairing (see Sector R)	
SECTOR AC: ELECTRONIC, ELECTRICAL, PHOTOGRAPHIC, AND OPTICAL GOODS			
AC1	3571-3579	Computer and Office Equipment	106
	3812-3873	Measuring, Analyzing, and Controlling Instruments; Photographic and Optical Goods, Watches, and Clocks	
	3612-3699	Electronic and Electrical Equipment and Components, Except Computer Equipment	
SECTOR AD: NON-CLASSIFIED FACILITIES			
AD1	Other stormwater discharges designated by the Department as needing a permit (see 40 CFR 122.26(a)(9)(i)(C) & (D)) or any facility discharging stormwater associated with industrial activity not described by any of Sectors A-AC. NOTE: Facilities may not elect to be covered under Sector AD. Only the Department may assign a facility to Sector AD.		107

(1) A complete list of SIC Codes (and conversions from the newer North American Industry Classification System" (NAICS)) can be obtained from the Internet at https://www.census.gov/naics/ or in paper form from various locations in the document titled Handbook of Standard Industrial Classifications, Office of Management and Budget, 1987.

3.4.1 Sector A: Timber Products

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.1.1 Covered Storm Water Discharges

The requirements in Part 3.4.1 apply to storm water discharges associated with industrial activity from Timber Products facilities, as identified by the SIC Codes specified under Sector A in Table 3.4-A.

3.4.1.2 Limitations on Coverage

3.4.1.2.1 Prohibited Discharges

(See also Part 1.1.4.) Not covered by this permit: storm water discharges from areas which are subject to federal Effluent Limitation Guidelines (40 CFR, Part 429, Subpart I). These discharges must be covered by a separate individual MPDES permit.

3.4.1.2.2 Allowable Non-Storm Water Discharges

(See also Part 1.1.3.) Allowed by this permit (provided the non-storm water component of the discharge complies with the requirements in Part 2.2): discharges from the spray down of lumber and wood product storage yards where no chemical additives are used in the spray-down waters and no chemicals are applied to the wood during storage.

3.4.1.3 Additional Technology-Based Effluent Limits

3.4.1.3.1 Good Housekeeping

(See also Part 2.2.2.) 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. r additional good housekeeping requirements.

3.4.1.4 Additional SWPPP Requirements

3.4.1.4.1 Drainage Area Site Map

(See also Part 3.1.5.) Document in the SWPPP 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, dry decking areas, untreated wood and residue storage areas, and treatment equipment storage areas.

3.4.1.4.2 Inventory of Exposed Materials

(See also Part 3.1.6.1.1.) Where such information exists, if the facility has used chlorophenolic, creosote, or chromium-copper-arsenic formulations for wood surface protection or preserving, document in the SWPPP the following: areas where contaminated soils, treatment equipment, and stored materials remain and the management practices employed to minimize the contact of these materials with storm water runoff. for additional pollutant requirements,

3.4.1.4.3 Description of Storm Water Management Controls

(See also Part 3.1.7.) 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 the facility performs wood surface protection and preservation activities, address the specific control measures, including any BMPs, for these activities.

3.4.1.5 Additional Inspection Requirements

(See also Part 2.4.) If the facility performs wood surface protection and preservation activities, inspect processing areas, transport areas, and treated wood storage areas monthly to assess the usefulness of practices to minimize the deposit of treatment chemicals on unprotected soils and in areas that will come in contact with storm water discharges.

3.4.1.6 Sector-Specific Benchmark Monitoring

(See also Part 2.6.2.) Table 3.4.1-A identifies benchmarks that apply to the specific subsectors of Sector A. These benchmarks apply to the primary industrial activity which describes the site activities.

Table 3.4.1-A

Subsector	Parameter	Benchmark Monitoring Concentration
Subsector A1: General Sawmills and Planing Mills (SIC 2421)	Chemical Oxygen Demand (COD)	120.0 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	Total Zinc[(1)]	Hardness Dependent
Subsector A2: Wood Preserving (SIC 2491)	Total Arsenic	0.15 mg/L
	Total Copper	0.005 mg/L
Subsector A3: Log Storage and Handling (SIC 2411)	Total Suspended Solids (TSS)	100 mg/L
Subsector A4: 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
	Total Suspended Solids (TSS)	100.0 mg/L

[(1)] The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (Part 3.5) and use the table below to identify the corresponding benchmark value.

Hardness dependent benchmark values for this sector are in the table below:

Water Hardness Range	Zinc (mg/L)
0-25 mg/L	0.037
25-50 mg/L	0.052
50-75 mg/L	0.080
75-100 mg/L	0.11
100-125 mg/L	0.13
125-150 mg/L	0.16
150-175 mg/L	0.18

175-200 mg/L	0.20
200-225 mg/L	0.23
225-250 mg/L	0.25
250+ mg/L	0.26

3.4.2 Sector B: Paper and Allied Products

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.2.1 Covered Storm Water Discharges

The requirements in Part 3.4.2 apply to storm water discharges associated with industrial activity from Paper and Allied Products Manufacturing facilities, as identified by the SIC Codes specified under Sector B in Table 3.4-A.

3.4.2.2 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.2-A identifies indicator monitoring that applies to the specific subsectors of Sector B.

Table 3.4.2-A

Subsector	Parameter	Monitoring Threshold
Subsector B2: Pulp Mills (SIC Code 2611); Paper Mills (SIC Code 2621); Paperboard Containers and Boxes (SIC Code 2652-2657); Converted Paper and Paperboard Products, Except Containers and Boxes (SIC Code 2671-2679)	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.4.2.3 Sector-Specific Benchmark Monitoring

(See also Part 2.6.2.) identifies benchmarks that apply to the specific subsectors of Sector B. These benchmarks apply to the primary industrial activity which describes the site activities.

Table 3.4.2-B

Subsector	Parameter	Benchmark Monitoring Concentration
Subsector B1: Paperboard Mills (SIC Code 2631)	Chemical Oxygen Demand (COD)	120 mg/L

3.4.3 Sector C: Chemicals and Allied Products Manufacturing

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.3.1 Covered Storm Water Discharges

The requirements in Part 3.4.3 apply to storm water discharges associated with industrial activity from Chemical and Allied Products Manufacturing, and Refining facilities, as identified by the SIC Codes specified under Sector C in Table 3.4-A.

3.4.3.2 Limitations on Coverage

3.4.3.2.1 Prohibited Discharges

(See also Part 1.1.4.) Not covered by this permit: storm water discharges from areas which are subject to federal Effluent Limitation Guidelines (40 CFR, Part 418, and Subpart A). These discharges must be covered by a separate MPDES permit.

Also not covered by this permit: non-storm water discharges containing inks, paints, or substances (hazardous, nonhazardous, etc.) resulting from an onsite spill, including materials collected in drip pans; wash water from material handling and processing areas; and wash water from drum, tank, or container rinsing and cleaning.

3.4.3.3 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.3-A identifies indicator monitoring that applies to the specific subsectors of Sector C.

Table 3.4.3-A

Subsector	Parameter	Monitoring Threshold
Subsector C5: Medicinal Chemicals and Botanical Products; Pharmaceutical Preparations; in vitro and in vivo Diagnostic Substances; and Biological Products, Except Diagnostic Substances (SIC Code 2833-2836); Paints, Varnishes, Lacquers, Enamels, and Allied Products (SIC Code 2851); Industrial Organic Chemicals (SIC Code 2861-2869); Miscellaneous Chemical Products (SIC Code 2891-2899); 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 (SIC Code 3952 (limited to list of inks and paints)); Petroleum Refining (SIC Code 2911)	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.4.3.4 Sector-Specific Benchmark Monitoring

(See also Part 2.6.2.) Table 3.4.3-B identifies benchmarks that apply to the specific subsectors of Sector C. These benchmarks apply to the primary industrial activity at the site.

Table 3.4.3-B

Subsector	Parameter	Benchmark Monitoring Concentration
Subsector C1: Agricultural Chemicals (SIC 2873-2879)	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Total Lead[(1)]	Hardness Dependent
	Total Iron	1.0 mg/L
	Total Zinc[(1)]	Hardness Dependent
	Phosphorus	2.0 mg/L
	Total Aluminum	1.1 mg/ L

Subsector C2: Industrial Inorganic Chemicals (SIC 2812-2819)	Total Iron	1.0 mg/L
	Nitrate plus Nitrite Nitrogen	0.68 mg/L
Subsector C3: Soaps, Detergents, Cosmetics, and Perfumes (SIC 2841-2844)	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Total Zinc[(1)]	Hardness Dependent
Subsector C4: Plastics, Synthetics, and Resins (SIC 2821-2824)	Total Zinc[(1)]	Hardness Dependent

[(1)] The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (Part 3.5) and use the table below to identify the corresponding benchmark value.

Hardness dependent benchmark values for this sector are in the table below:

Water Hardness Range	**Lead (mg/L)**	**Zinc (mg/L)**
0-25 mg/L	0.014	0.037
25-50 mg/L	0.024	0.052
50-75 mg/L	0.045	0.080
75-100 mg/L	0.069	0.11
100-125 mg/L	0.10	0.13
125-150 mg/L	0.12	0.16
150-175 mg/L	0.15	0.18
175-200 mg/L	0.18	0.20
200-225 mg/L	0.21	0.23
225-250 mg/L	0.25	0.25
250+ mg/L	0.26	0.26

3.4.4 Sector D: Asphalt Paving and Roofing Materials and Lubricant Manufacturing

The permittee must comply with Part 3.4 sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

3.4.4.1 Covered Storm Water Discharges

The requirements in Part 3.4.4 apply to storm water discharges associated with industrial activity from Asphalt Paving and Roofing Materials and Lubricant Manufacturing facilities facilities, as identified by the SIC Codes specified under Sector D in Table 3.4-A.

3.4.4.2 Limitations on Coverage

3.4.4.2.1 Prohibited Discharges

(See also Part 1.1.4.) Not covered by this permit: storm water discharges from areas which are subject to federal Effluent Limitation Guidelines (40 CFR, Part 443, and Subpart A). These discharges must be covered by a separate MPDES permit.

Additionally, the following storm water discharges associated with industrial activity are not authorized by this permit:

- Discharges from petroleum refining facilities, including those that manufacture asphalt or asphalt products, that are subject to nationally established effluent limitation guidelines found in 40 CFR Part 419 (Petroleum Refining).
- Discharges from oil recycling facilities.
- Discharges associated with fats and oils rendering.

3.4.4.3 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.4-A identifies indicator monitoring that applies to the specific subsectors of Sector D.

Table 3.4.4-A

Subsector	Parameter	Monitoring Threshold
Subsector D2: Miscellaneous Products of Petroleum and Coal (SIC Code 2992, 2999)	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.4.4.4 Sector-Specific Benchmark Monitoring

(See also Part 2.6.2.) Table 3.4.4-B identifies benchmarks that apply to the specific subsectors of Sector D. These benchmarks apply to the primary industrial activity which describes the site activities.

Table 3.4.4-B

Subsector	Parameter	Benchmark Monitoring Concentration
Subsector D1. Asphalt Paving and Roofing Materials (SIC 2951, 2952)	Total Suspended Solids (TSS)	100 mg/L

3.4.5 Sector E: Glass, Clay, Cement, Concrete, and Gypsum Products

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.5.1 Covered Storm Water Discharges

The requirements in Part 3.4.5 apply to storm water discharges associated with industrial activity from Glass, Clay, Cement, Concrete, and Gypsum Products facilities, as identified by the SIC Codes specified under Sector E in Table 3.4-A.

3.4.5.2 Limitations on Coverage

3.4.5.2.1 Prohibited Discharges

(See also Part 1.1.4.) Not covered by this permit: storm water discharges from areas which are subject to federal Effluent Limitation Guidelines (40 CFR, Part 411, and Subpart C). These discharges must be covered by a separate MPDES permit.

3.4.5.3 Additional Technology-Based Effluent Limits

3.4.5.3.1 Good Housekeeping Measures

(See also Part 2.2.2.) With good housekeeping, prevent or minimize the discharge of spilled cement, aggregate (including sand or gravel), kiln dust, fly ash, settled dust, or other material in storm water from paved portions of the site that are exposed to storm water. Consider sweeping regularly or using other equivalent measures to minimize the presence of these materials. Indicate in the SWPPP 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. The permittee must also prevent the exposure of fine granular solids (cement, fly ash, kiln dust, etc.) to storm water, where practicable, by storing these materials in enclosed silos, hoppers, or buildings, or under other covering.

3.4.5.4 Additional SWPPP Requirements

3.4.5.4.1 Drainage Area Site Map

(See also Part 3.1.5.) Document in the SWPPP the locations of the following, as applicable: bughouse 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.

3.4.5.4.2 Non-Storm Water Discharge Testing

(See also Part 3.1.6.3.) Facilities producing ready-mix concrete, concrete block, brick, or similar products, must include in the non-storm water discharge certification a description of measures that ensure that process wastewaters resulting from washing trucks, mixers, transport buckets, forms, or other equipment are discharged in accordance with MPDES requirements or are recycled.

3.4.5.5 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.5-A identifies indicator monitoring that applies to the specific subsectors of Sector E.

Table 3.4.5-A

Subsector	Parameter	Monitoring Threshold
Subsector E3: Flat Glass (SIC Code 3211); Glass and Glassware, Pressed or Blown (SIC Code 3221, 3229); Glass Products Made of Purchased Glass (SIC Code 3231); Hydraulic Cement (SIC Code 3241); Cut Stone and Stone Products (SIC Code 3281); Abrasive, Asbestos, and Miscellaneous Nonmetallic Mineral Products (SIC Code 3291-3299)	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.4.5.6 Sector-Specific Benchmark Monitoring

(See also Part 2.6.2.) Table 3.4.5-B identifies benchmarks that apply to the specific subsectors of Sector E. These benchmarks apply to the primary industrial activity which describes the site activities.

Table 3.4.5-B

Subsector	Parameter	Benchmark Monitoring Concentration

Subsector E1: Clay Product Manufacturers (SIC 3251-3259, 3261-3269)	Total Aluminum	1.1 mg/L
Subsector E2: Concrete and Gypsum Product Manufacturers (SIC 3271-3275)	Total Suspended Solids (TSS)	100 mg/L

3.4.6 Sector F: Primary Metals

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.6.1 Covered Storm Water Discharges

The requirements in Part 3.4.6 apply to storm water discharges associated with industrial activity from Primary Metals facilities, as identified by the SIC Codes specified under Sector F in Table 3.4-A.

3.4.6.2 Additional Technology-Based Effluent Limits

3.4.6.2.1 Good Housekeeping Measures

(See also Part 2.2.2.) As part of the 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 storm water 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.

3.4.6.3 Additional SWPPP Requirements

3.4.6.3.1 Drainage Area Site Map

(See also Part 3.1.5.) Identify in the SWPPP 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 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 state surface waters.

3.4.6.3.2 Inventory of Exposed Material

(See also Part 3.1.6.1.1.) 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.

3.4.6.4 Additional Inspection Requirements

(See also Part 2.4.) As part of conducting the quarterly routine facility 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 storm water runoff.

3.4.6.5 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.6-A identifies indicator monitoring that applies to the specific subsectors of Sector F.

Table 3.4.6-A

Subsector	Parameter	Monitoring Threshold
Subsector F5: Primary Smelting and Refining of Nonferrous Metals (SIC Code 3331-3339); Secondary Smelting and Refining of Nonferrous Metals (SIC Code 3341); Miscellaneous Primary Metal Products (SIC Code 3398, 3399)	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.4.6.6 Sector-Specific Benchmark Monitoring

(See also Part 2.6.2.) Table 3.4.6-B identifies benchmarks that apply to the specific subsectors of Sector F. These benchmarks apply to the primary industrial activity which describes the site activities.

Table 3.4.6-B

Subsector	Parameter	Benchmark Monitoring Concentration
Subsector F1. Steel Works, Blast Furnaces, and Rolling and Finishing Mills (SIC 3312-3317)	Total Aluminum	1.1 mg/L
	Total Zinc[(1)]	Hardness Dependent
Subsector F2. Iron and Steel Foundries (SIC 3321-3325)	Total Aluminum	1.1 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	Total Copper	Hardness Dependent
	Total Zinc[(1)]	Hardness Dependent
Subsector F3. Rolling, Drawing, and Extruding of Nonferrous Metals (SIC 3351-3357)	Total Copper	0.005 mg/L
	Total Zinc[(1)]	Hardness Dependent
Subsector F4. Nonferrous Foundries (SIC 3363-3369)	Total Copper	0.005 mg/L
	Total Zinc[(1)]	Hardness Dependent

[(1)] The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (Part 3.5) and use the table below to identify the corresponding benchmark value.

Hardness dependent benchmark values for this sector are in the table below:

Water Hardness Range	Zinc (mg/L)
0-25 mg/L	0.037
25-50 mg/L	0.052
50-75 mg/L	0.080

75-100 mg/L	0.11
100-125 mg/L	0.13
125-150 mg/L	0.16
150-175 mg/L	0.18
175-200 mg/L	0.20
200-225 mg/L	0.23
225-250 mg/L	0.25
250+ mg/L	0.26

3.4.7 Sector G: Metal Mining (Ore Mining and Dressing)

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.7.1 Covered Storm Water Discharges

The requirements in Part 3.4.7 apply to storm water discharges associated with industrial activity from Metal Mining facilities, including mines abandoned on federal lands, as identified by the SIC Codes specified under Sector G in Table 3.4-A.

Coverage is required for metal mining facilities that discharge storm water contaminated by, or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts, or waste products located on the site of such operations.

3.4.7.1.1 Covered Discharges from Earth-Disturbing Activities Conducted Prior to Active Mining

All storm water discharges.

3.4.7.1.2 Covered Discharges from Facilities Undergoing Reclamation

All storm water discharges.

3.4.7.1.3 Covered Discharges from Inactive Facilities

All storm water discharges.

3.4.7.1.4 Covered Discharges from Active and Temporarily Inactive Facilities

Only the storm water discharges from the following areas are covered:

- Waste rock and overburden piles if composed entirely of storm water and not combining with mine drainage.
- Topsoil piles.
- Offsite haul and access roads.
- Onsite haul and access roads constructed of waste rock, overburden, or spent ore if composed entirely of storm water and not combining with mine drainage.
- Onsite haul and access roads not constructed of waste rock, overburden, or spent ore except if mine drainage is used for dust control.
- Runoff from tailings dams or dikes when not constructed of waste rock or tailings and no process fluids are present.
- Runoff from tailings dams or dikes when constructed of waste rock or tailings and no process fluids are present, if composed entirely of storm water and not combining with mine drainage.
- Concentration building if no contact with material piles; mill site if no contact with material piles.
- Office or administrative building and housing if mixed with storm water from industrial area.

- Chemical storage areas.
- Docking facility if no excessive contact with waste product that would otherwise constitute mine drainage.
- Explosives storage.
- Fuel storage.
- Vehicle and equipment maintenance area and building
- Parking areas (if necessary)/
- Power plant.
- Truck wash areas if no excessive contact with waste product that would otherwise constitute mine drainage.
- Unreclaimed, disturbed areas outside of active mining area.
- Reclaimed areas released from reclamation requirements prior to December 17, 1990.
- Partially or inadequately reclaimed areas or areas not released from reclamation requirements.

3.4.7.2 Limitations on Coverage

3.4.7.2.1 Prohibited Storm Water Discharges

(See also Part 1.1.4.) Storm water discharges not authorized by this permit: discharges from active metal mining facilities that are subject to effluent limitation guidelines for the Ore Mining and Dressing Point Source Category (40 CFR Part 440). These discharges must be covered by a separate MPDES permit. Industries with storm water ELGs are listed in Part 6.

Note: storm water runoff from these sources are subject to 40 CFR Part 440 if they are mixed with other discharges subject to Part 440. In this case, they are not eligible for coverage under this permit. Discharges from overburden/waste rock and overburden/waste rock-related areas are not subject to 40 CFR Part 440 unless they: (1) drains naturally (or is intentionally diverted) to a point source; and (2) combine 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 storm water does not combine with other sources of mine drainage that are not subject to 40 CFR Part 440, and meets the other eligibility criteria contained in Part 1.1. Permittees bear the responsibility for determining if they are eligible for coverage under this permit, or must seek coverage under another MPDES permit.

3.4.7.2.2 Prohibited Non-Storm Water Discharges

(See also Part 1.1.4.) Not authorized by this permit: adit drainage, and contaminated springs or seeps discharging from waste rock dumps that do not directly result from precipitation events.

3.4.7.3 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).

3.4.7.3.1

Mining operation - Consists of the active and temporarily inactive phases, and the reclamation phase, but excludes the exploration and construction phases.

3.4.7.3.2

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.”

3.4.7.3.3

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."

3.4.7.3.4

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."

3.4.7.3.5

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."

3.4.7.3.6

Active metal mining area - 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).

3.4.7.3.7

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 MPDES industrial storm water permit.

3.4.7.3.8

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 are covered by an active mining permit issued by the applicable state or federal agency.

3.4.7.4 Additional Technology-Based Effluent Limits

3.4.7.4.1 Employee Training

(See also Part 2.2.8.) Conduct employee training at least annually at active and temporarily inactive sites. All employee training(s) must be documented in the SWPPP.

3.4.7.4.2 Storm Water Controls

(See also Part 2.) Consider implementing the following control measures at the site. The potential pollutants identified in Part 3.4.7.5.3 shall determine the priority and appropriateness of the control measures selected.

3.4.7.4.2.1 Storm Water Diversions

Consider diverting storm water away from potential pollutant sources. The 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.

3.4.7.4.2.2 Capping

When capping is necessary to minimize pollutant discharges in storm water, identify the source being capped and the material used to construct the cap.

3.4.7.4.2.3 Treatment

If treatment of storm water (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 storm water runoff is encouraged where practicable. Treated runoff may be discharged as a storm water 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).

3.4.7.4.3 Non-Storm Water Discharge Testing

(See also Part 3.1.6.3.) Test or evaluate all outfalls covered under this permit for the presence of specific mining-related non-storm water 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, the permittee may keep a certification with the SWPPP consistent with Part 3.4.7.5.5.

3.4.7.5 Additional SWPPP Requirements

3.4.7.5.1 Nature of Industrial Activities (See also Part 3.1.4)

(See also Part 3.1.4.) Briefly document in the SWPPP the mining and associated activities that can potentially affect the storm water discharges covered by this permit, including a general description of the location of the site relative to major transportation routes and communities.

3.4.7.5.2 Site Map (See also Part 3.1.5)

(See also Part 3.1.5.) Document in the SWPPP the locations of the following (as appropriate): mining or milling site boundaries; access and haul roads; outline of the drainage areas of each storm water 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 MPDES 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.

3.4.7.5.3 Potential Pollutant Sources (See also Part 3.1.6.1.1)

(See also Part 3.1.6.) For each area of the mine or mill site where storm water discharges associated with industrial activities occur, identify the types of pollutants (e.g., heavy metals, sediment) likely to be present. 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 storm water; vegetation of site (if any); and history of 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 the SWPPP with this information.

3.4.7.5.4 Documentation of Control Measures

(See also Part 3.1.7.) Document all control measures that the implement consistent with Part 3.4.7.4.2. If control measures are implemented or planned but are not listed in Part 3.4.7.4.2 (e.g., substituting a less toxic chemical for a more toxic one), include descriptions of them in the SWPPP.

3.4.7.5.5 Certification of Permit Coverage for Commingled Non-Storm Water Discharges

If the permittee is able, consistent with Part 3.4.7.4.3 above, to certify that a particular discharge composed of commingled storm water and non-storm water is covered under a separate MPDES permit, and that permit subjects the non-storm water portion to effluent limitations prior to any commingling, retain such certification with the SWPPP. This certification must identify the non-storm water discharges, the applicable MPDES permit(s), the effluent limitations placed on the non-storm water discharge by the permit(s), and the points at which the limitations are applied.

3.4.7.6 Additional Inspection Requirements

(See also Part 2.4.) Inspect sites at least quarterly unless adverse weather conditions make the site inaccessible. Sites which discharge to waters designated as outstanding waters or waters which are impaired for sediment or nitrogen must be inspected monthly.

3.4.7.7 Monitoring and Reporting Requirements

3.4.7.7.1 Benchmark Monitoring for Active Copper Ore Mining and Dressing Facilities

(See also Part 2.6.2.) Active copper ore mining and dressing facilities must sample and analyze storm water discharges for the pollutants listed in Table 3.4.7-A .

Table 3.4.7-A

Subsector	Parameter	Benchmark Monitoring Concentration
Subsector G1: Active Copper Ore Mining and Dressing Facilities (SIC 1021)	Total Suspended Solids (TSS)	100 mg/L
	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L

3.4.7.7.2 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 the benchmark monitoring once in the first year for the parameters listed in Table 3.4.7-B, and twice annually in all subsequent years of coverage under this permit for any parameters for which the benchmark has been exceeded. The permittee is also required to conduct analytic monitoring for the parameters listed in Table 3.4.7-C in accordance with the requirements in Part 3.4.7.7.3. The Department may also notify the permittee that additional monitoring must be performed to accurately characterize the quality and quantity of pollutants discharged from the waste rock and overburden piles.

Table 3.4.7-B

Subsector	Parameter	Benchmark Monitoring Concentration
Subsector G2: Iron Ores; Copper Ores; Lead and Zinc Ores; Gold and Silver Ores; Ferroalloy Ores, Except Vanadium; and	Total Suspended Solids (TSS)	100 mg/L
	pH	6.0-9.0 s.u.
	Hardness (as $CaCO_3$)[(1)]	no benchmark value

Miscellaneous Metal Ores (SIC Codes 1011, 1021, 1031, 1041, 1044, 1061, 1081, 1094, 1099) (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 Antimony	0.64 mg/L
	Total Arsenic	0.15 mg/ L
	Total Beryllium	0.13 mg/L
	Total Cadmium[1]	Hardness Dependent
	Total Copper	0.005 mg/L
	Total Iron	1.0 mg/L
	Total Lead[(1)]	Hardness Dependent
	Total Mercury	0.0014 mg/L
	Total Nickel[(1)]	Hardness Dependent
	Total Selenium	0.005 mg/L
	Total Silver[(1)]	Hardness Dependent
	Total Zinc[(1)]	Hardness Dependent

[(1)] The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (Part 3.5) and use the table below to identify the corresponding benchmark value.

Hardness dependent benchmark values for this sector are in the table below:

Water Hardness Range	**Cadmium (mg/L)**	**Lead (mg/L)**	**Nickel (mg/L)**	**Silver (mg/L)**	**Zinc (mg/L)**
0-25 mg/L	0.00049	0.014	0.15	0.00037	0.037
25-50 mg/L	0.00073	0.024	0.20	0.00080	0.052
50-75 mg/L	0.0012	0.045	0.31	0.0019	0.080
75-100 mg/L	0.0017	0.069	0.42	0.0033	0.11
100-125 mg/L	0.0021	0.10	0.52	0.0050	0.13
125-150 mg/L	0.0026	0.12	0.61	0.0071	0.16
150-175 mg/L	0.0031	0.15	0.71	0.0094	0.18
175-200 mg/L	0.0035	0.18	0.80	0.012	0.20
200-225 mg/L	0.0040	0.21	0.89	0.015	0.23
225-250 mg/L	0.0044	0.25	0.98	0.018	0.25
250+ mg/L	0.0047	0.26	1.0	0.020	0.26

3.4.7.7.3 Additional Analytic Monitoring Requirements for Discharges From Waste Rock and Overburden Piles at Active Metal Mining Facilities

In addition to the monitoring required in Part 3.4.7.7.2 for discharges from waste rock and overburden piles, the permittee must also conduct monitoring for additional parameters based on the type of ore the permittee mines onsite. Where a parameter in Table 3.4.7-C is the same as a pollutant the permittee are required to monitor for in Table 3.4.7-B , t he frequency and schedule for monitoring for these additional parameters is the same as that specified in Part 2.6.2.

In other words, for all of the metals the permittee must use the corresponding benchmark in Table 3.4.7-B, and the permittee may use any monitoring results conducted for Part 3.4.7.7.2 to satisfy the monitoring requirement for that parameter for Part 3.4.7.7.3. For radium and uranium, which do not have corresponding benchmarks in Table 3.4.7-B, there are no applicable benchmarks.

Table 3.4.7-C: 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 the permittee is required to monitor for those parameters. (H) indicates that hardness must also be measured when this pollutant is measured.			

Table 3.4.7-D: Applicability of the Multi-Sector General Permit to Storm Water Runoff From Active Mining and Dressing Sites, Temporarily Inactive Sites, and Sites Undergoing Reclamation	
Discharge/Source of Discharge	Note/Comment
Piles	
Waste rock/overburden	Covered under the MSGP if composed entirely of storm water and not combined with mine drainage. See note below.
Topsoil	--
Roads constructed of waste rock or spent ore	
Onsite haul roads	Covered under the MSGP if composed entirely of stormwater and not combined with mine drainage. See note below.
Offsite haul and access roads	--
Roads not constructed of waste rock or spent ore	
Onsite haul roads	Covered under the MSGP 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	Covered under the MSGP except if process fluids are present and only if composed entirely of stormwater and not combined with mine drainage. See Note below.
Runoff from tailings dams/dikes when not constructed of waste rock and tailings	Covered under the MSGP except if process fluids are present.
Concentration building	Covered under the MSGP 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	Covered under the MSGP if mixed with stormwater from the industrial area.
Chemical storage area	--
Docking facility	Covered under the MSGP 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	Covered under the MSGP but coverage unnecessary if only employee and visitor-type parking.
Power plant	
Truck wash area	Covered under the MSGP except when excessive contact with waste product that would otherwise constitute mine drainage.
Reclamation-related areas	
Any disturbed area (unreclaimed)	Covered under the MSGP 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: Storm water runoff from these sources is subject to the MPDES program for storm water unless mixed with discharges subject to 40 CFR Part 440 that are regulated by another permit prior to mixing. Non-storm water discharges from these sources are subject to MPDES 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 storm water 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 Part 1.1 of the permit. Permittees bear the initial responsibility for determining the applicable technology-based standard for such discharges.	

3.4.7.8 Termination of Permit Coverage

3.4.7.8.1 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 federal or state 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 Part 3.4.7.8.2.

3.4.7.8.2 Termination of Permit Coverage for Sites Reclaimed Before December 17, 1990

A site or portion of a site that was released from applicable federal or state 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) storm water 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 storm water 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.

3.4.8 Sector H: Coal Mines and Coal-Mining-Related Facilities

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.8.1 Covered Storm Water Discharges

The requirements in Part 3.4.8 apply to storm water discharges associated with industrial activity from Coal Mines and Coal Mining-Related facilities, as identified by the SIC Codes specified under Sector H in Table 3.4-A.

3.4.8.1.1 Discharges from Exploration and Construction of Coal Mines and Coal-Mining-Related Facilities

These “storm water discharges associated with construction activity” (defined in ARM 17.30.1102(28)) are not eligible for coverage under this permit.

3.4.8.2 Limitations on Coverage

3.4.8.2.1 Prohibited Discharges

(See also Part 1.1.4.) Not authorized by this permit: storm water discharges subject to an existing effluent limitation guideline at 40 CFR Part 434.

Also not covered by this permit: discharges from pollutant seeps or underground drainage from inactive coal mines and refuse disposal areas that do not result from precipitation events, and discharges from floor drains in maintenance buildings and other similar drains in mining and preparation plant areas.

3.4.8.3 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).
Mining operation - Consists of the active and temporarily inactive phases, and the reclamation phase, but excludes the exploration and construction phases.

3.4.8.3.1

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."

3.4.8.3.2

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."

3.4.8.3.3

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."

3.4.8.3.4

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."

3.4.8.3.5

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).

3.4.8.3.6

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 MPDES industrial storm water permit.

3.4.8.3.6.1

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.

3.4.8.4 Additional Technology-Based Effluent Limits

3.4.8.4.1 Good Housekeeping Measures

(See also Part 2.2.2.) As part of the good housekeeping program, consider using sweepers and covered storage, watering haul roads to minimize dust generation, and conserving vegetation (where possible) to minimize erosion.

3.4.8.4.2 Preventive Maintenance

(See also Part 2.2.3.) 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.

3.4.8.5 Additional SWPPP Requirements

3.4.8.5.1 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 storm water-related pollutant discharges must be addressed and then documented with the SWPPP (directly or by reference).

3.4.8.5.2 Site Map

(See also Part 3.1.5.) Document in the SWPPP 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.

3.4.8.5.3 Potential Pollutant Sources

(See also Part 3.1.6.1.1.) Document in the SWPPP 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.

3.4.8.6 Additional Inspection Requirements

3.4.8.6.1 Inspections of Active Mining-Related Areas

(See also Part 2.4.) Perform quarterly 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.

3.4.8.6.2 Sediment and Erosion Control

(See also Part 2.2.5.) As indicated in Part 3.4.8.5.1., SMCRA requirements regarding sediment and erosion control measures must be complied with for those areas subject to SMCRA authority, including inspection requirements.

3.4.8.6.3 Routine Site Inspections

(See also Part 2.4.2.) The routine 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.

3.4.8.7 Sector-Specific Benchmark Monitoring

(See also Part 2.6.2.) Table 3.4.8-A identifies benchmarks that apply to the specific subsectors of Sector H. These benchmarks apply to the primary industrial activity which describes the site activities.

Table 3.4.8-A

Subsector	Parameter	Benchmark Monitoring Concentration
	Total Aluminum	1.1 mg/L

Subsector H1: Coal Mines and Related Areas (SIC 1221-1241)	Total Suspended Solids (TSS)	100 mg/L

3.4.8.8 Termination of Permit Coverage

3.4.8.8.1 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 Part 3.4.8.8.2.

3.4.8.8.2 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) storm water 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 storm water 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.

3.4.9 Sector I: Oil and Gas Extraction and Refining

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.9.1 Covered Storm Water Discharges

The requirements in Part 3.4.9 apply to storm water discharges associated with industrial activity from Oil and Gas Extraction facilities, as identified by the SIC Codes specified under Sector I in Table 3.4-A.

Discharges of storm water runoff from field activities or operations associated with oil and gas exploration, production, processing, or treatment operations or transmission facilities are exempt from MPDES permit coverage unless, in accordance with ARM 17.30.1106(1)(b), the facility:

- Has had a discharge of storm water resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 110.6, 40 CFR 117.21 or 40 CFR 302.6 at anytime since November 16, 1987; or
- Contributes to a violation of a water quality standard.

3.4.9.2 Limitations on Coverage

3.4.9.2.1 Prohibited Discharges

(See also Part 1.1.4.) Not authorized by this permit: storm water discharges from petroleum drilling operations that are subject to nationally established effluent limitation guidelines found at 40 CFR Part 435, respectively.

Also not covered by this permit: discharges of vehicle and equipment wash water, including tank cleaning operations, are not authorized by this permit. Wash water discharges must be authorized under a separate MPDES permit or discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements.

3.4.9.3 Additional SWPPP Requirements

3.4.9.3.1 Drainage Area Site Map

(See also Part 3.1.5.) Document in the SWPPP 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; 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.

3.4.9.3.2 Potential Pollutant Sources

(See also Part 3.1.6.) Also document in the SWPPP the following sources and activities that have potential pollutants associated with them: chemical, cement, mud, or gel mixing 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 storm water from release (taking into account human health risks, the control of drinking water intakes, and the designated uses of the receiving water).

3.4.9.4 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.9-A identifies indicator monitoring that applies to Sector I.

Table 3.4.9-A

Subsector	Parameter	Monitoring Threshold
Subsector I1: Crude Petroleum and Natural Gas (SIC Code 1311); Natural Gas Liquids (SIC Code 1321); Oil and Gas Field Services (SIC Code 1381-1389)	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.4.10 Sector J: Mineral Mining and Dressing

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.10.1 Covered Storm Water Discharges

The requirements in Part 3.4.10 apply to storm water discharges associated with industrial activity from Active and Inactive Non-Metallic Mineral Mining and Dressing facilities, as identified by the SIC Codes specified under Sector J in Table 3.4-A.

3.4.10.1.1 Covered Discharges from Inactive Facilities

All storm water discharges.

3.4.10.1.2 Covered Discharges from Active and Temporarily Inactive Facilities

All storm water discharges, except for storm water discharges subject to the federal Effluent Limitation Guideline at 40 CFR Part 436.

3.4.10.1.3 Discharges from Exploration and Construction of Non-Metallic Mineral Mining Facilities

These "storm water discharges associated with construction activity" (as defined in ARM 17.30.1102(28)) are not eligible for coverage under this permit.

3.4.10.1.4 Covered Discharges from Sites Undergoing Reclamation

All storm water discharges.

3.4.10.2 Limitations on Coverage

(See also Part 1.1.4.) Not covered by this permit: storm water discharges from areas which are subject to federal Effluent Limitation Guidelines (including those in 40 CFR, Part 436, Subparts B, C, and D). These discharges must be covered by a separate MPDES permit.

3.4.10.3 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).

3.4.10.3.1

Mining operations - Consists of the active and temporarily inactive phases, and the reclamation phase, but excludes the exploration and construction phases.

3.4.10.3.2 3.4.10.3.2

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."

3.4.10.3.3

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".

3.4.10.3.4

Active phase - Activities including the extraction, removal or recovery of minerals. 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."

3.4.10.3.5

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".
NOTE: 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).

3.4.10.3.6

Active Mineral Mining Facility - A place where work or other activity related to the extraction, removal, or recovery of minerals 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).

3.4.10.3.7

Inactive Mineral Mining Facility - A site or portion of a site where mineral 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 mineral 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 MPDES industrial storm water permit.

3.4.10.3.8

Temporarily Inactive Mineral 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.

3.4.10.3.9

Uncontaminated - Free from the presence of pollutants attributable to industrial activity.

3.4.10.4 Additional Technology-Based Effluent Limits

3.4.10.4.1 Employee Training

(See also Part 2.2.8.) Conduct employee training at least annually at active and temporarily inactive sites. All employee training(s) must be documented with the SWPPP.

3.4.10.4.2 Storm water Controls

(See also Part 2.) Consider implementing the following control measures at the site. The potential pollutants identified in Part 3.4.7.5.3 shall determine the priority and appropriateness of the control measures selected.

3.4.10.4.2.1 Storm Water Diversions

Consider diverting storm water away from potential pollutant sources. The following are some control measure 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.

3.4.10.4.2.2 Capping

When capping is necessary to minimize pollutant discharges in storm water, identify the source being capped and the material used to construct the cap.

3.4.10.4.2.3 Treatment

If treatment of storm water (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 storm water runoff is encouraged. Treated runoff may be discharged as a storm water source regulated under this permit provided the discharge is not combined with discharges subject to Effluent Limitation Guidelines for the Mineral Mining and Processing Point Source Category (40 CFR Part 436).

3.4.10.4.3 Non-Storm Water Discharge Testing

(See also Part 3.1.6.3.) Test or evaluate all outfalls covered under this permit for the presence of specific mining-related non-storm water discharges such as discharges subject to Effluent Limitation Guidelines (e.g., 40 CFR Part 436). Alternatively, the permittee may keep a certification with the SWPPP consistent with Part 3.4.7.5.5.

3.4.10.5 Additional SWPPP Requirements

The following requirements are applicable for active mineral mining facilities, temporarily inactive mineral mining facilities, and sites undergoing reclamation. They are not applicable to inactive mineral mining facilities.

3.4.10.5.1 Nature of Industrial Activities

(See also Part 3.1.4.) Document in the SWPPP the mining and associated activities that can potentially affect the storm water discharges covered by this permit, including a general description of the location of the site relative to major transportation routes and communities.

3.4.10.5.2 Site Map

(See also Part 3.1.5.) Document in the SWPPP the locations of the following (as appropriate): mining or milling site boundaries; access and haul roads; outline of the drainage areas of each storm water 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 MPDES 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; heap leach pads; on-site or off-site points of discharge for wastewaters covered under another MPDES permit (such as mine dewatering subject to federal ELGs); surface waters; boundary of tributary areas that are subject to effluent limitations guidelines; and location(s) of reclaimed areas.

3.4.10.5.3 Potential Pollutant Sources

(See also Part 3.1.6.) For each area of the mine or mill site where storm water discharges associated with industrial activities occur, document in the SWPPP the types of pollutants (e.g., heavy metals, sediment) likely to be present. For example, phosphate mining facilities will likely need to document pollutants such as selenium, which can be present in their discharges. Consider these factors: the mineralogy of the waste rock (e.g., acid forming); toxicity and quantity of chemicals used, produced, or discharged; the likelihood of contact with storm water; vegetation of site (if any); and history of leaks or spills of toxic or hazardous pollutants. Also include a summary of any existing waste rock or overburden characterization data and test results for potential generation of acid rock drainage.

3.4.10.5.4 Storm Water Controls

(See also Part 3.1.6.3.) To the extent that the permittee uses any of the control measures in Part 3.4.10.4.2, document them in the SWPPP. If control measures are implemented or planned but are not listed here (e.g., substituting a less toxic chemical for a more toxic one), include descriptions of them in the SWPPP.

3.4.10.5.5 Certification of Permit Coverage for Commingled Non-Storm Water Discharges

(See also Part 3.1.6.3.) If the permittee determines that the ability to certify, consistent with Part 3.4.10.4.3, that a particular discharge composed of commingled storm water and non-storm water is covered under a separate MPDES permit, and that permit subjects the non-storm water portion to effluent limitations prior to any commingling, the permittee must retain such certification with the SWPPP. This certification must identify the non-storm water discharges, the applicable MPDES permit(s), the effluent limitations placed on the non-storm water discharge by the permit(s), and the points at which the limitations are applied.

3.4.10.6 Additional Inspection Requirements

(See also Parts 2.4 and 3.1.6.3.) Inspect sites at least quarterly unless adverse weather conditions make the site inaccessible. Sites which discharge to waters which are designated as outstanding waters or waters which are impaired for sediment or nitrogen must be inspected monthly.

3.4.10.7 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.10-A identifies indicator monitoring that applies to the specific subsectors of Sector J.

Table 3.4.10-A

Subsector	Parameter	Monitoring Threshold
Subsector J3: Clay, Ceramic, and Refractory Materials (SIC Code 1455, 1459); Chemical and Fertilizer Mineral Mining (SIC Code 1474-1479)	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.4.10.8 Sector-Specific Benchmark Monitoring

(See also Part 2.6.2.) Table 3.4.10-B identifies benchmarks that apply to the specific subsectors of Sector J. These benchmarks apply to the primary industrial activity which describes the site activities.

Table 3.4.10-B

Subsector	Parameter	Benchmark Monitoring Concentration
Subsector J1. Sand and Gravel Mining (SIC 1442, 1446)	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Total Suspended Solids (TSS)	100 mg/L
Subsector J2. Dimension and Crushed Stone and Nonmetallic Minerals (except fuels) (SIC 1411, 1422-1429, 1481, 1499)	Total Suspended Solids (TSS)	100 mg/L

3.4.10.9 Termination of Permit Coverage

3.4.10.9.1 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 Part 3.4.10.9.2.

3.4.10.9.2 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) storm water 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 storm water 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.

3.4.11 Sector K: Hazardous Waste Treatment, Storage, or Disposal Facilities

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.11.1 Covered Storm Water Discharges

The requirements in Part 3.4.11 apply to storm water discharges associated with industrial activity from Hazardous Waste Treatment, Storage, or Disposal facilities (TSDFs), as identified by the SIC Codes specified under Sector A in Table 3.4-A.

This permit authorizes storm water discharges associated with industrial activity from facilities that treat, store, or dispose of hazardous wastes, including those that are operating under interim status or a permit under subtitle C of RCRA.

Disposal facilities that have been properly closed and capped, and have no materials exposed to storm water, are considered inactive and do not require permits.

3.4.11.2 Limitations on Coverage

3.4.11.2.1 Prohibited Discharges

(See also Part 1.1.4.) Not covered by this permit: storm water discharges from areas which are subject to federal Effluent Limitation Guidelines (including those in 40 CFR, Part 445, Subparts A and B). These discharges must be covered by a separate MPDES permit.

Also not covered by this permit: leachate, gas collection condensate, drained free liquids, contaminated ground water, laboratory-derived wastewater, and contact wash water from washing truck and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.

3.4.11.3 Definitions

3.4.11.3.1

Contaminated storm water - storm water that comes into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater as defined in Part 3.4.11.3.4. Some specific areas of a landfill that may produce contaminated storm water 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.

3.4.11.3.2

Drained free liquids - aqueous wastes drained from waste containers (e.g., drums) prior to landfilling.

3.4.11.3.3

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.

3.4.11.3.4

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 storm water, 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 storm water, and contact wash water from washing truck, equipment, and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.

3.4.11.3.5

Leachate - liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste.

3.4.11.3.6

Non-contaminated storm water - storm water that does not come into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater as defined in Part 3.4.11.3.4. Non-contaminated storm water includes storm water that flows off the cap, cover, intermediate cover, daily cover, and/or final cover of the landfill.

3.4.11.4 Sector-Specific Benchmark Monitoring

(See also Part 2.6.2.) Table 3.4.11-A identifies benchmarks that apply to the specific subsectors of Sector K. These benchmarks apply to the primary industrial activity which describes the site activities.

Table 3.4.11-A

Subsector	Parameter	Benchmark Monitoring Concentration
Subsector K1. ALL - Industrial Activity Code "HZ". Benchmarks only applicable to discharges not subject to effluent limitations in 40 CFR Part 445 Subpart A and B.	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(1)	Hardness Dependent
	Total Cyanide	0.022 mg/ L
	Total Lead(1)	Hardness Dependent
	Total Mercury	0.0014 mg/ L
	Total Selenium	0.005 mg/L
	Total Silver(1)	Hardness Dependent

(1) The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (Part 3.5) and use the table below to identify the corresponding benchmark value.

Hardness Dependent benchmark values for this sector are in the table below:

Water Hardness Range	Cadmium (mg/L)	Lead (mg/L)	Silver (mg/L)
0-25 mg/L	0.00049	0.014	0.00037
25-50 mg/L	0.00073	0.024	0.00080
50-75 mg/L	0.0012	0.045	0.0019
75-100 mg/L	0.0017	0.069	0.0033
100-125 mg/L	0.0021	0.10	0.0050
125-150 mg/L	0.0026	0.12	0.0071
150-175 mg/L	0.0031	0.15	0.0094
175-200 mg/L	0.0035	0.18	0.012

200-225 mg/L	0.0040	0.21	0.015
225-250 mg/L	0.0044	0.25	0.018
250+ mg/L	0.0047	0.26	0.020

3.4.12 Sector L: Landfills, Land Application Sites, and Open Dumps

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.12.1 Covered Storm Water Discharges

The requirements in Part 3.4.1 apply to storm water discharges associated with industrial activity from Landfills and Land Application Sites and Open Dumps facilities, as identified by the SIC Codes specified under Sector L in Table 3.4-A.

This permit may authorize storm water discharges for Sector L facilities associated with waste disposal at landfills, land application sites, and open dumps that receive or have received industrial waste, including sites subject to regulation under Subtitle D of RCRA. This permit does not cover discharges from landfills that receive only municipal wastes.

3.4.12.2 Limitations on Coverage

3.4.12.2.1 Prohibited Discharges

(See also Part 1.1.4.) Not covered by this permit: storm water discharges from areas which are subject to federal Effluent Limitation Guidelines (including those in 40 CFR, Part 445, Subpart A and B). These discharges must be covered by a separate MPDES permit.

Also not authorized by this permit: leachate, gas collection condensate, drained free liquids, contaminated ground water, laboratory wastewater, and contact wash water from washing truck and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.

3.4.12.3 Definitions

3.4.12.3.1

Contaminated storm water - storm water 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 storm water 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.

3.4.12.3.2

Drained free liquids - aqueous wastes drained from waste containers prior to landfilling.

3.4.12.3.3

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 storm water, 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 storm water; and contact wash water from washing truck,

equipment, and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.

3.4.12.3.4

Leachate - liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste.

3.4.12.3.5

Non-contaminated storm water - storm water that does not come into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater. Non-contaminated storm water includes storm water that flows off the cap, cover, intermediate cover, daily cover, and/or final cover of the landfill.

3.4.12.4 Additional Technology-Based Effluent Limits

3.4.12.4.1 Preventive Maintenance Program

(See also Part 2.2.3.) As part of the preventive maintenance program, maintain the following: all elements of leachate collection and treatment systems, to prevent commingling of leachate with storm water; 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.

3.4.12.4.2 Erosion and Sedimentation Control

(See also Part 2.2.5.) 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.

3.4.12.4.3 Unauthorized Non-Storm Water Discharge Testing

(See also Part 3.1.6.3.) The discharge test and certification must also be conducted for the presence of leachate and vehicle wash water.

3.4.12.5 Additional SWPPP Requirements

3.4.12.5.1 Drainage Area Site Map

(See also Part 3.1.5.) Document in the SWPPP 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.

3.4.12.5.2 Summary of Potential Pollutant Sources

(See also Part 3.1.6.) Document in the SWPPP 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 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.

3.4.12.6 Additional Inspection Requirements

(See also Part 2.4.)

3.4.12.6.1 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.

3.4.12.6.2 Inspections of Inactive Sites

Inspect inactive landfills, open dumps, and land application sites at least quarterly. 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.

3.4.12.7 Additional Documentation Requirements

3.4.12.7.1 Recordkeeping and Internal Reporting

Keep records with the SWPPP 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.

3.4.12.8 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.12-A identifies indicator monitoring that applies to the specific subsectors of Sector L.

Table 3.4.12-A

Subsector	Parameter	Monitoring Threshold
Subsector L2: All Landfill, Land Application Sites and Open Dumps, except Municipal Solid Waste Landfill (MSWLF) Areas Closed in Accordance with 40 CFR 258.60 (Activity Code LF)	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.4.12.9 Sector-Specific Benchmark Monitoring

(See also Part 2.6.2.) Table 3.4.12-B identifies benchmarks that apply to the specific subsectors of Sector L. These benchmarks apply to the primary industrial activity which describes the site activities.

Table 3.4.12-B

Subsector	Parameter	Benchmark Monitoring Concentration[1]
Subsector L1. All Landfill, Land Application Sites and Open Dumps (Industrial Activity Code "LF")	Total Suspended Solids (TSS)	100 mg/L

(1) Benchmark monitoring required only for discharges not subject to effluent limitations in 40 CFR Part 445 Subpart B.

3.4.13 Sector M: Automobile Salvage Yards

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-

specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.13.1 Covered Storm Water Discharges

The requirements in Part 3.4.13 apply to storm water discharges associated with industrial activity from Automobile Salvage Yard facilities, as identified by the SIC Codes specified under Sector M in Table 3.4-A.

3.4.13.2 Additional Technology-Based Effluent Limits

3.4.13.2.1 Spill and Leak Prevention Procedures

(See also Part 2.2.4.) 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.

3.4.13.2.2 Employee Training

(See also Part 2.2.8.) If applicable to the facility, address the following areas (at a minimum) in the employee training program: proper handling (collection, storage, and disposal) of oil, used mineral spirits, anti-freeze, mercury switches, and solvents.

3.4.13.2.3 Management of Storm Water

(See also Part 2.2.6.) 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.

3.4.13.3 Additional SWPPP Requirements

3.4.13.3.1 Drainage Area Site Map

(See also Part 3.1.5.) 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.

3.4.13.3.2 Potential Pollutant Sources

(See also Part 3.1.6.) Assess the potential for the following to contribute pollutants to storm water discharges: vehicle storage areas, dismantling areas, parts storage areas (e.g., engine blocks, tires, hub caps, batteries, hoods, mufflers), and fueling stations.

3.4.13.4 Additional Inspection Requirements

(See also Part 2.4.) Immediately (or as soon as feasible) inspect vehicles arriving at the site for leaks. Inspect quarterly for signs of leakage all equipment containing oily parts, hydraulic fluids, any other types of fluids, or mercury switches. Also, inspect quarterly 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.

3.4.13.5 Sector-Specific Benchmarks

(See also Part 2.6.2.) Table 3.4.13-A identifies benchmarks that apply to the specific subsectors of Sector M. These benchmarks apply to the primary industrial activity which describes the site activities.

Table 3.4.13-A		
Subsector	**Parameter**	**Benchmark Monitoring Concentration**
Subsector M1. Automobile Salvage Yards (SIC 5015)	Total Suspended Solids (TSS)	100 mg/L
	Total Aluminum	1.1 mg/L
	Total Lead[(1)]	Hardness Dependent
[(1)] The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (Part 3.5) and use the table below to identify the corresponding benchmark value. Hardness Dependent benchmark values for this sector are in the table below:		
Water Hardness Range	**Lead (mg/L)**	
0-25 mg/L	0.014	
25-50 mg/L	0.024	
50-75 mg/L	0.045	
75-100 mg/L	0.069	
100-125 mg/L	0.10	
125-150 mg/L	0.12	
150-175 mg/L	0.15	
175-200 mg/L	0.18	
200-225 mg/L	0.21	
225-250 mg/L	0.25	
250+ mg/L	0.26	

3.4.14 Sector N: Scrap Recycling and Waste Recycling Facilities

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.14.1 Covered Storm Water Discharges

The requirements in Part 3.4.14 apply to storm water discharges associated with industrial activity from Scrap Recycling and Waste Recycling facilities, as identified by the SIC Codes specified under Sector N in Table 3.4-A.

3.4.14.2 Limitations on Coverage

Separate permit requirements have been established for recycling facilities that only receive source-separated recyclable materials primarily from non-industrial and residential sources (i.e., common consumer products including paper, newspaper, glass, cardboard, plastic containers, and aluminum and tin cans). This includes recycling facilities commonly referred to as material recovery facilities (MRF).

3.4.14.2.1 Prohibited Discharges

(See also Part 1.1.4.) Not covered by this permit: non-storm water discharges from turnings containment areas. Discharges from containment areas in the absence of a storm event are prohibited unless covered by a separate MPDES permit.

3.4.14.3 Additional Technology-Based Effluent Limits

3.4.14.3.1 Scrap and Waste Recycling Facilities (Non-Source Separated, Non-liquid Recyclable Materials)

Requirements for facilities that receive, process, and do wholesale distribution of non-liquid recyclable wastes (e.g., ferrous and nonferrous metals, plastics, glass, cardboard, and paper). These facilities may receive both non-recyclable and recyclable materials. This section is not intended for those facilities that accept recyclables only from primarily non-industrial and residential sources.

3.4.14.3.1.1 Inbound Recyclable and Waste Material Control Program

Minimize the chance of accepting materials that could be 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 the 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 Part 3.4.14.4.1.6); (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).

3.4.14.3.1.2 Scrap and Waste Material Stockpiles (Outdoor Storage)

Minimize contact of storm water runoff with stockpiled materials, processed materials, and non-recyclable 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).

3.4.14.3.1.3 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 storm water run-on. Storm water 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. The permittee must regularly maintain the oil and water separator (or its equivalent) and properly dispose of or recycle collected residual fluids.

3.4.14.3.1.4 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 wash water 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.

3.4.14.3.1.5 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 storm water 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.

3.4.14.3.1.6 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.

3.4.14.3.1.7 Spill Prevention and Response Procedures

(See also Part 2.2.4.) 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.

3.4.14.3.1.8 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.

3.4.14.3.2 Waste Recycling Facilities (Liquid Recyclable Materials)

3.4.14.3.2.1 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 MPDES wastewater permit or industrial user permit under the pretreatment program.

3.4.14.3.2.2 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. Discharges of precipitation from containment areas containing used oil must also be in accordance with applicable federal and state requirements. 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.

3.4.14.3.2.3 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.

3.4.14.3.3 Recycling Facilities (Source-Separated Materials)

The following identifies considerations for facilities that receive only source-separated recyclables, primarily from non-industrial and residential sources.

3.4.14.3.3.1 Inbound Recyclable Material Control

Minimize the chance of accepting nonrecyclables (e.g., hazardous materials) that could be a 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.

3.4.14.3.3.2 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.

3.4.14.3.3.3 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 wash water from draining to the storm sewer system, and (c) provide employee training on pollution prevention practices.

3.4.14.3.3.4 Vehicle and Equipment Maintenance

Following are some control measure options for areas where vehicle and equipment maintenance occur outdoors (a) prohibit vehicle and equipment wash water 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.

3.4.14.4 Additional SWPPP Requirements

3.4.14.4.1 Drainage Area Site Map

(See also Part 3.1.5.) Document in the SWPPP 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.

3.4.14.4.2 Maintenance Schedules/Procedures for Collection, Handling, and Disposal or Recycling of Residual Fluids at Scrap and Waste Recycling Facilities

The SWPPP must identify any applicable maintenance schedule and the procedures to collect, handle, and dispose of or recycle residual fluids.

3.4.14.5 Additional Inspection Requirements

(See also Part 2.4.)

3.4.14.5.1 Inspections for Waste Recycling Facilities

The inspections must be performed quarterly, and include, at a minimum, all areas where waste is generated, received, stored, treated, or disposed of and that are exposed to either precipitation or storm water runoff.

3.4.14.6 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.14-A identifies indicator monitoring that applies to the specific subsectors of Sector N.

Table 3.4.14-A

Subsector	Parameter	Monitoring Threshold
Subsector N2. Source-separated Recycling Facility (SIC Code 5093)	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.4.14.7 Sector-Specific Benchmark Monitoring

(See also Part 2.6.2.) Table 3.4.14-B identifies benchmarks that apply to the specific subsectors of Sector N. These benchmarks apply to the primary industrial activity which describes the site activities.

Table 3.4.14-B

Subsector	Parameter	Benchmark Monitoring Concentration
Subsector N1. Scrap Recycling and Waste Recycling Facilities except Source-Separated Recycling (SIC 5093)	Chemical Oxygen Demand (COD)	120 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	Total Aluminum	1.1 mg/L
	Total Recoverable Copper	0.005 mg/L
	Total Lead[(1)]	Hardness Dependent

	Total Recoverable Zinc[1]	Hardness Dependent

[1] The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (Part 3.5) and use the table below to identify the corresponding benchmark value.

Hardness Dependent benchmark values for this sector are in the table below:

Water Hardness Range	**Lead (mg/L)**	**Zinc (mg/L)**
0-25 mg/L	0.014	0.037
25-50 mg/L	0.024	0.052
50-75 mg/L	0.045	0.080
75-100 mg/L	0.069	0.11
100-125 mg/L	0.10	0.13
125-150 mg/L	0.12	0.16
150-175 mg/L	0.15	0.18
175-200 mg/L	0.18	0.20
200-225 mg/L	0.21	0.23
225-250 mg/L	0.25	0.25
250+ mg/L	0.26	0.26

3.4.15 Sector O: Steam Electric Generating Facilities

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.15.1 Covered Storm Water Discharges

The requirements in Part 3.4.15 apply to storm water discharges associated with industrial activity from Steam Electric Power Generating facilities, as identified by the SIC Codes specified under Sector O in Table 3.4-A.

3.4.15.2 Industrial Activities Covered by Sector O

This permit authorizes storm water discharges from the following industrial activities at Sector O facilities:

3.4.15.2.1

Steam electric power generation using coal, natural gas, oil, nuclear energy, etc., to produce a steam source, including coal handling areas (except storm water runoff from coal storage piles).

3.4.15.2.2

Dual fuel facilities that could employ a steam boiler.

3.4.15.3 Limitations on Coverage

3.4.15.3.1 Prohibited Discharges

(See also Part 1.1.4.) Not covered by this permit: storm water discharges from areas which are subject to federal Effluent Limitation Guidelines (including those in 40 CFR, Part 423). These discharges must be covered by a separate MPDES permit.

Storm water discharges from the following are not covered by this permit:

- Ancillary facilities (e.g., fleet centers and substations) that are not contiguous to a stream electric power generating facility.

- Gas turbine facilities (providing the facility is not a dual-fuel facility that includes a steam boiler), and combined-cycle facilities where no supplemental fuel oil is burned (and the facility is not a dual-fuel facility that includes a steam boiler).
- Cogeneration (combined heat and power) facilities utilizing a gas turbine.

3.4.15.4 Additional Technology-Based Effluent Limits

(See also Part 2.2.)

3.4.15.4.1 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.

3.4.15.4.2 Delivery Vehicles

Minimize contamination of storm water 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.

3.4.15.4.3 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).

3.4.15.4.4 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.

3.4.15.4.5 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.

3.4.15.4.6 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.

3.4.15.4.7 Large Bulk Fuel Storage Tanks

Minimize contamination of surface runoff from large bulk fuel storage tanks. Consider containment berms (or their equivalent). The permittee must also comply with applicable state and federal laws, including Spill Prevention, Control and Countermeasure (SPCC) Plan requirements.

3.4.15.4.8 Spill Reduction Measures

Minimize the potential for an oil or chemical spill, or reference the appropriate part of the SPCC plan. Visually inspect as part of the routine facility inspection the structural integrity of all above-ground tanks, pipelines, pumps, and related equipment that may be exposed to storm water, and make any necessary repairs immediately.

3.4.15.4.9 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.

3.4.15.4.10 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.

3.4.15.4.11 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.

3.4.15.4.12 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.

3.4.15.4.13 Landfills, Scrap Yards, Surface Impoundments, Open Dumps, General Refuse Sites

Minimize the potential for contamination of runoff from these areas.

3.4.15.5 Additional SWPPP Requirements

3.4.15.5.1 Drainage Area Site Map

(See also Part 3.1.5.) Document in the SWPPP 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).

3.4.15.5.2 Documentation of Good Housekeeping Measures

(See also Part 2.2.2.) The permittee must document in the SWPPP the good housekeeping measures implemented to meet the effluent limits in Part 3.4.15.4.

3.4.15.6 Additional Inspection Requirements

3.4.15.6.1 Routine Site Compliance Inspection

(See also Part 2.4.2.) As part of the routine 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.

3.4.15.7 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.15-A identifies indicator monitoring that applies to the specific subsectors of Sector O.

Table 3.4.15-A

Subsector	Parameter	Monitoring Threshold
Subsector O1: Steam Electric Generating Facilities, including coal handling sites (SIC Code SE)	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.4.16 Sector P: Land Transportation and Warehousing

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.16.1 Covered Storm Water Discharges

The requirements in Part 3.4.16 apply to storm water discharges associated with industrial activity from Land Transportation and Warehousing facilities, as identified by the SIC Codes specified under Sector P in Table 3.4-A.

3.4.16.2 Limitations on Coverage

3.4.16.2.1 Prohibited Discharges

(See also Part 1.1.4.) This permit does not authorize the discharge of vehicle/equipment/surface wash water, including tank cleaning operations. Such discharges must be authorized under a separate MPDES permit, discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements, or recycled on-site.

3.4.16.3 Additional Technology-Based Effluent Limits

3.4.16.3.1 Good Housekeeping Measures

(See also Part 2.2.2.)

3.4.16.3.1.1 Vehicle and Equipment Storage Areas

Minimize the potential for storm water 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.

3.4.16.3.1.2 Fueling Areas

Minimize contamination of storm water runoff from fueling areas. Consider the following (or other equivalent measures): Covering the fueling area; using spill/overflow protection and cleanup equipment; minimizing storm water run-on/runoff to the fueling area; using dry cleanup methods; and treating and/or recycling collected storm water runoff.

3.4.16.3.1.3 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 storm water 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 storm water to the areas; using dry cleanup methods; and treating and/or recycling collected storm water runoff.

3.4.16.3.1.4 Vehicle and Equipment Cleaning Areas

Minimize contamination of storm water 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 wash water drains to a proper collection system (i.e., not the storm water drainage system); treating and/or recycling collected wash water, or other equivalent measures.

3.4.16.3.1.5 Vehicle and Equipment Maintenance Areas

Minimize contamination of storm water 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 storm water drainage systems; using dry cleanup methods; treating and/or recycling collected storm water runoff, minimizing run on/runoff of storm water to maintenance areas.

3.4.16.3.1.6 Locomotive Sanding (Loading Sand for Traction) Areas

Consider the following (or other equivalent measures): covering sanding areas; minimizing storm water run on/runoff; or appropriate sediment removal practices to minimize the offsite transport of sanding material by storm water.

3.4.16.3.2 Employee Training

(See also Part 2.2.8.) Train personnel at least once a year and 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.

3.4.16.4 Additional SWPPP Requirements

3.4.16.4.1 Drainage Area Site Map

(See also Part 3.1.5.) Identify in the SWPPP 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.

3.4.16.4.2 Potential Pollutant Sources

(See also Part 3.1.6.) Assess the potential for the following activities and facility areas to contribute pollutants to storm water discharges: Onsite waste storage or disposal; dirt/gravel parking areas for vehicles awaiting maintenance; illicit plumbing connections between shop floor drains and the storm water conveyance system(s); and fueling areas. Describe these activities in the SWPPP.

3.4.16.4.3 Description of Good Housekeeping Measures

The permittee must document in the SWPPP the good housekeeping measures implemented with Part 3.4.16.3.

3.4.16.4.4 Vehicle and Equipment Wash water Requirements

If applicable, attach to or reference in the SWPPP, a copy of the MPDES permit issued for vehicle/equipment wash water or, if an MPDES permit has not been issued, a copy of the pending application. If an industrial user permit is issued under a local pretreatment program, attach a copy to the SWPPP. In any case, implement all non-storm water discharge permit conditions or pretreatment conditions in the SWPPP. If wash water is handled in another manner (e.g., hauled offsite), describe the disposal method and attach all pertinent documentation/information (e.g., frequency, volume, destination, etc.) in the plan.

3.4.16.4.5 Additional Inspection Requirements

(See also Part 2.4.) 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.

3.4.16.5 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.16-A identifies indicator monitoring that applies to the specific subsectors of Sector P.

Table 3.4.16-A

Subsector	Parameter	Monitoring Threshold
Subsector P1: Railroad Transportation (SIC Code 4011, 4013); Local and Highway Passenger Transportation (SIC Code 4111-4173); Motor Freight Transportation and Warehousing (SIC Code 4212-4231); United States Postal Service (SIC Code 4311); Petroleum Bulk Stations and Terminals (SIC Code 5171)	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.4.17 Sector Q: Water Transportation

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.17.1 Covered Storm Water Discharges

The requirements in Part 3.4.17 apply to storm water discharges associated with industrial activity from Water Transportation facilities, as identified by the SIC Codes specified under Sector Q in Table 3.4-A.

3.4.17.2 Limitations on Coverage

3.4.17.2.1 Prohibited Discharges

(See also Part 1.1.4.) Not covered by this permit: bilge and ballast water, sanitary wastes, pressure wash water, and cooling water originating from vessels.

3.4.17.3 Additional Technology-Based Effluent Limits

3.4.17.3.1 Good Housekeeping Measures

(See also Part 2.2.2.)

3.4.17.3.1.1 Pressure Washing Area

If pressure washing is used to remove marine growth from vessels, the discharge water must be permitted by a separate MPDES permit. Collect or contain the discharges from the pressures washing area so that they are not co-mingled with storm water discharges authorized by this permit.

3.4.17.3.1.2 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 storm water conveyances of deposits of abrasive blasting debris and paint chips.

3.4.17.3.1.3 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.

3.4.17.3.1.4 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 storm water runoff collected from the maintenance area.

3.4.17.3.1.5 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 storm water to material handling areas.

3.4.17.3.1.6 Drydock Activities

Routinely maintain and clean the drydock to minimize pollutants in storm water 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.

3.4.17.3.2 Employee Training

(See also Part 2.2.8.) As part of the 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.

3.4.17.3.3 Preventive Maintenance

(See also Part 2.2.3.) As part of the preventive maintenance program, perform timely inspection and maintenance of storm water 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.

3.4.17.4 Additional SWPPP Requirements

3.4.17.4.1 Drainage Area Site Map

(See also Part 3.1.5.) Document in the SWPPP 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).

3.4.17.4.2 Summary of Potential Pollutant Sources

(See also Part 3.1.6.) Document in the SWPPP the following additional sources and activities that have potential pollutants associated with them: outdoor manufacturing or processing activities (e.g., welding, metal fabricating) and dust or particulate generating processes (e.g., abrasive blasting, sanding, and painting.)

3.4.17.5 Additional Inspection Requirements

(See also Part 2.4.) Include the following in all quarterly routine facility 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.

3.4.17.6 Sector-Specific Benchmark Monitoring

(See also Part 2.6.2.) Table 3.4.17-A identifies benchmarks that apply to the specific subsectors of Sector Q. These benchmarks apply to the primary industrial activity which describes the site activities.

Table 3.4.17-A

Subsector	Parameter	Benchmark Monitoring Concentration
Subsector Q1. Water Transportation Facilities (SIC 4412-4499)	Total Aluminum	1.1 mg/L
	Total Lead[1]	Hardness Dependent
	Total Zinc[1]	Hardness Dependent

(1) The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (Part 3.5) and use the table below to identify the corresponding benchmark value.

Hardness Dependent benchmark values for this sector are in the table below:

Water Hardness Range	Lead (mg/L)	Zinc (mg/L)
0-25 mg/L	0.014	0.037
25-50 mg/L	0.024	0.052
50-75 mg/L	0.045	0.080
75-100 mg/L	0.069	0.11
100-125 mg/L	0.10	0.13
125-150 mg/L	0.12	0.16
150-175 mg/L	0.15	0.18
175-200 mg/L	0.18	0.20
200-225 mg/L	0.21	0.23
225-250 mg/L	0.25	0.25

250+ mg/L	0.26	0.26

3.4.18 Sector R: Ship and Boat Building and Repair Yards

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.18.1 Covered Storm Water Discharges

The requirements in Part 3.4.18 apply to storm water discharges associated with industrial activity from Ship and Boat Building and Repair Yard facilities, as identified by the SIC Codes specified under Sector R in Table 3.4-A.

3.4.18.2 Limitations on Coverage

3.4.18.2.1 Prohibited Discharges

(See also Part 1.1.4.) Not covered under this permit: discharges containing bilge and ballast water, sanitary wastes, pressure wash water, and cooling water originating from vessels.

3.4.18.3 Additional Technology-Based Effluent Limits

3.4.18.3.1 Good Housekeeping Measures

(See also Part 2.2.2.)

3.4.18.3.1.1 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 MPDES permit.

3.4.18.3.1.2 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 storm water conveyances of deposits of abrasive blasting debris and paint chips.

3.4.18.3.1.3 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.

3.4.18.3.1.4 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 storm water runoff collected from the maintenance area.

3.4.18.3.1.5 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 storm water run-on to material handling areas.

3.4.18.3.1.6 Drydock Activities

Routinely maintain and clean the drydock to minimize pollutants in storm water 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.

3.4.18.3.2 Employee Training

(See also Part 2.2.8.) As part of the 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.

3.4.18.3.3 Preventive Maintenance

(See also Part 2.2.3.) As part of the preventive maintenance program, perform timely inspection and maintenance of storm water 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.

3.4.18.4 Additional SWPPP Requirements

3.4.18.4.1 Drainage Area Site Map

(See also Part 3.1.5.) Document in the SWPPP 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).

3.4.18.4.2 Potential Pollutant Sources

(See also Part 3.1.6.) Document in the SWPPP 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 dust or particulate generating processes (e.g., abrasive blasting, sanding, and painting).

3.4.18.4.3 Documentation of Good Housekeeping Measures

Document in the SWPPP any good housekeeping measures implemented to meet the effluent limits in Part 3.4.18.3.

3.4.18.4.3.1 Blasting and Painting Areas

Document in the SWPPP 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).

3.4.18.4.3.2 Storage Areas

Specify in the SWPPP which materials are stored indoors, and consider containment or enclosure for those stored outdoors.

3.4.18.5 Additional Inspection Requirements

(See also Part 2.4.) Include the following in all quarterly routine facility 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.

3.4.18.6 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.18-A identifies indicator monitoring that applies to the specific subsectors of Sector R.

Table 3.4.18-A

Subsector	Parameter	Monitoring Threshold
Subsector R1: Ship and Boat Building or Repairing Yards (SIC Code 3731, 3732)	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.4.19 Sector S: Air Transportation

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.19.1 Covered Storm Water Discharges

The requirements in Part 3.4.19 apply to storm water discharges associated with industrial activity from Air Transportation facilities, as identified by the SIC Codes specified under Sector S in Table 3.4-A.

This permit authorizes storm water discharges from only those portions of the air transportation facility that are involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling and lubrication), equipment cleaning operations or deicing operations.

3.4.19.2 Limitations on Coverage

Note: “deicing” will generally be used to imply both deicing (removing frost, snow or ice) and anti-icing (preventing accumulation of frost, snow or ice) activities, unless specific mention is made regarding anti-icing and/or deicing activities.

3.4.19.2.1 Prohibited Discharges

(See also Part 1.1.4.) This permit does not authorize the discharge of aircraft, ground vehicle, runway and equipment wash waters; nor the dry weather discharge of deicing chemicals. Such discharges must be

covered by separate MPDES permit(s). Note that a discharge resulting from snowmelt is not a dry weather discharge.

3.4.19.3 Multiple Operators at Air Transportation Facilities

Air transportation facilities often have more than one operator who could discharge stormwater associated with industrial activity. Operators include the airport authority and airport tenants, including air passenger or cargo companies, fixed based operators, and other parties who routinely perform industrial activities on airport property.

3.4.19.3.1 Permit Coverage

The airport authority is required to obtain permit coverage under the MSGP. The NOI must include all SICs and industrial sectors/subsectors completed at the facility.

3.4.19.3.2 MSGP Implementation Responsibilities for Airport Authority and Tenants

The airport authority, in collaboration with its tenants, may choose to implement certain MSGP requirements on behalf of its tenants to increase efficiency and eliminate redundancy or duplication of effort.

Options available to the airport authority and its tenants for implementation of MSGP requirements include:

- The airport authority performs certain activities on behalf of itself and its tenants and reports on its activities.
- Tenants provide the airport authority with relevant inputs about tenants' activities, including deicing chemical usage, and the airport authority compiles and reports on tenants' and its own activities.
- Tenants independently perform, document, and submit required information on their activities.

3.4.19.3.3 SWPPP Requirements

A single comprehensive SWPPP must be developed for all storm water discharges associated with industrial activity at the airport before submittal of any NOIs. The comprehensive SWPPP should be developed collaboratively by the airport authority and tenants. If any tenant develops a SWPPP for discharges from its own areas of the airport, that SWPPP must be coordinated and integrated with the comprehensive SWPPP. The SWPPP must outline each tenant's responsibilities towards achieving compliance with this permit.

As applicable, the SWPPP must clearly specify the MSGP requirements to be complied with by:

- The airport authority for itself.
- The airport authority on behalf of its tenants.
- Tenants for themselves.

3.4.19.4 Additional Technology-Based Effluent Limits

3.4.19.4.1 Good Housekeeping Measures

(See also Part 2.2.2.)

3.4.19.4.1.1 Aircraft, Ground Vehicle and Equipment Maintenance Areas

Minimize the contamination of storm water 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 storm water runoff from the maintenance area and providing treatment or recycling.

3.4.19.4.1.2 Aircraft, Ground Vehicle and Equipment Cleaning Areas

Clearly demarcate these areas on the ground using signage or other appropriate means. Minimize the contamination of storm water runoff from cleaning areas.

3.4.19.4.1.3 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 storm water 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.

3.4.19.4.1.4 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 storm water. 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.

3.4.19.4.1.5 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 storm water runoff.

3.4.19.4.1.6 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.

3.4.19.4.1.6.1 Runway Deicing Operation

Minimize contamination of storm water 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.

3.4.19.4.1.6.2 Aircraft Deicing Operations

Minimize contamination of storm water 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-80s and DC-9s. Also consider using ice-detection systems and airport traffic flow strategies and departure slot allocation systems.

3.4.19.4.1.7 Management of Storm Water

(See also Part 2.2.6.) 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 storm water/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 storm water contamination. Used deicing fluid should be recycled whenever possible.

3.4.19.5 Additional SWPPP Requirements

An airport authority and tenants of the airport are encouraged to work in partnership in the development of a SWPPP. If an airport tenant obtains storm water discharge regulation under this permit and develops a SWPPP for discharges from his own areas of the airport, prior to permit coverage, that SWPPP must be coordinated and integrated with the SWPPP for the entire airport. 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 storm water discharges associated with industrial activity.

3.4.19.5.1 Drainage Area Site Map

(See also Part 3.1.5.) Document in the SWPPP 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.

3.4.19.5.2 Potential Pollutant Sources

(See also Part 3.1.6.) In the inventory of exposed materials, describe in the SWPPP the potential for the following activities and facility areas to contribute pollutants to storm water 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 the permittee uses deicing chemicals, the permittee 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 the 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 SWPPPs.

3.4.19.5.3 Vehicle and Equipment Wash water Requirements

Attach to or reference in the SWPPP, a copy of the MPDES permit issued for vehicle/equipment wash water or, if an MPDES 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 the SWPPP. In any case, if the permittee is subject to another permit, describe the control measures for implementing all non-storm water discharge permit conditions or pretreatment requirements the SWPPP. If wash water 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 the SWPPP.

3.4.19.5.4 Documentation of Control Measures Used for Management of Runoff

Document in the SWPPP the control measures used for collecting or containing contaminated melt water from collection areas used for disposal of contaminated snow.

3.4.19.6 Additional Inspection Requirements

3.4.19.6.1 Inspections

(See also Part 2.4.) At a minimum conduct routine facility inspections at least monthly during the deicing season (e.g., October through April for most mid-latitude airports). If the facility needs to deice before or after this period, expand the monthly inspections to include all months during which deicing chemicals may be used. The Department may specifically require the permittee to increase inspection frequencies.

3.4.19.6.2 Routine Site Inspections

(See also Part 2.4.2.) Using only qualified personnel, conduct at least one routine site inspection during periods of actual deicing operations, if possible. If not practicable during active deicing because of weather, conduct at least one routine inspection during the season when deicing operations occur and the materials and equipment for deicing are in place.

3.4.19.7 Sector-Specific Benchmark Monitoring

(See also Part 2.6.2.) Table 3.4.19-A identifies benchmarks that apply to the specific subsectors of Sector S. These benchmarks apply to the primary industrial activity which describes the site activities.

Table 3.4.19-A

Subsector	Parameter	Benchmark Monitoring Concentration
Subsector S1: For airports where a single permittee, or a combination of permitted facilities use more than 100,000 gallons of pure glycol in glycol-based deicing fluids and/or 100 tons or more of urea on an average annual basis, monitor the first four parameters in ONLY those discharge points that collect stormwater from areas where deicing activities occur (SIC 4512-4581).	Total Suspended Solids[1]	100 mg/L
	Chemical Oxygen Demand (COD) [1]	120 mg/L
	Ammonia as N (if urea is used as a deicing material) [1]	2.14 mg/L
	pH[1]	6.0 - 9.0 s.u.

(1) These are deicing-related parameters. Collect the four benchmark samples, and any required follow-up benchmark samples when deicing activities are occurring.

3.4.20 Sector T: Treatment Works

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.20.1 Covered Storm Water Discharges

The requirements in Part 3.4.20 apply to storm water discharges associated with industrial activity from Treatment Works facilities, as identified by the SIC Codes specified under Sector T in Table 3.4-A.

3.4.20.2 Industrial Activities Covered by Sector T

The requirements listed under this part apply to all existing point source storm water discharges associated with the following activities:

3.4.20.2.1

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 a facility with a design flow of 1.0 million gallons per day (MGD) or more; or are required to have an approved pretreatment program under 40 CFR Part 403.

3.4.20.2.2

The following are not required to have permit coverage: farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located within the facility, or areas that are in compliance with Section 405 of the CWA.

3.4.20.3 Limitations on Coverage

3.4.20.3.1 Prohibited Discharges

(See also Part 1.1.4.)Sanitary and industrial wastewater and equipment and vehicle wash water are not authorized by this permit.

3.4.20.4 Additional Technology-Based Effluent Limits

3.4.20.4.1 Control Measures

(See also Part 2.2.) In addition to the other control measures, consider the following: routing storm water 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).

3.4.20.4.2 Employee Training

(See also Part 2.2.8.) 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.

3.4.20.5 Additional SWPPP Requirements

3.4.20.5.1 Site Map

(See also Part 3.1.5.) Document in the SWPPP 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.

3.4.20.5.2 Potential Pollutant Sources

(See also Part 3.1.6.) Document in the SWPPP 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.

3.4.20.5.3 Wastewater and Wash water Requirements

Keep a copy of all the current MPDES permits issued for wastewater and industrial, vehicle and equipment wash water discharges or, if an MPDES permit has not yet been issued, a copy of the pending application(s) with the SWPPP. If the wash water is handled in another manner, the disposal method must be described and all pertinent documentation must be retained onsite.

3.4.20.6 Additional Inspection Requirements

(See also Part 2.4.) 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.

3.4.20.7 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.20-A identifies indicator monitoring that applies to the specific subsectors of Sector T.

Table 3.4.20-A

Subsector	Parameter	Monitoring Threshold
Subsector T1: 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. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with section 405 of the CWA (Activity Code TW)	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.4.21 Sector U: Food and Kindred Products

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.21.1 Covered Storm Water Discharges

The requirements in Part 3.4.21 apply to storm water discharges associated with industrial activity from Food and Kindred Products facilities, as identified by the SIC Codes specified under Sector U in Table 3.4-A.

3.4.21.2 Limitations on Coverage

3.4.21.2.1 Prohibited Discharges

(See also Part 1.1.4.) The following discharges are not authorized by this permit: discharges containing boiler blowdown, cooling tower overflow and blowdown, ammonia refrigeration purging, and vehicle washing and clean-out operations.

3.4.21.3 Additional Technology-Based Limitations

3.4.21.3.1 Employee Training

(See also Part 2.2.8.) Address pest control in the employee training program.

3.4.21.4 Additional SWPPP Requirements

3.4.21.4.1 Drainage Area Site Map

(See also Part 3.1.5.) Document in the SWPPP 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.

3.4.21.4.2 Potential Pollutant Sources

(See also Part 3.1.6.) Document in the SWPPP, 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.

3.4.21.5 Additional Inspection Requirements

(See also Part 2.4.) Inspect on a quarterly basis, at a minimum, the following areas where the potential for exposure to storm water exists: loading and unloading areas for 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.

3.4.21.6 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.21-A identifies indicator monitoring that applies to the specific subsectors of Sector U.

Table 3.4.21-A

Subsector	Parameter	Monitoring Threshold
Subsector U3: Meat Products (SIC Code 2011-2015); Dairy Products (SIC Code 2021-2026); Canned, Frozen, and Preserved Fruits, Vegetables, and Food Specialties (SIC Code 2032-2038); Bakery Products (SIC Code 2051-2053); Sugar and Confectionery Products (SIC Code 2061-2068); Beverages (SIC Code 2082-2087); Miscellaneous Food Preparations and Kindred Products (SIC Code 2091-2099); Tobacco Products (SIC Code 2111-2141)	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.4.21.7 Sector-Specific Benchmark Monitoring

(See also Part 2.6.2.) Table 3.4.21-B identifies benchmarks that apply to the specific subsectors of Sector U. These benchmarks apply to the primary industrial activity which describes the site activities.

Table 3.4.21-B

Subsector	Parameter	Benchmark Monitoring Concentration
Subsector U1. Grain Mill Products (SIC 2041-2048)	Total Suspended Solids (TSS)	100 mg/L
Subsector U2. Fats and Oils Products (SIC 2074-2079)	Biochemical Oxygen Demand (BOD5)	30 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Total Suspended Solids (TSS)	100 mg/L

3.4.22 Sector V: Textile Mills, Apparel, and Other Fabric Product Manufacturing; Leather and Leather Products

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.22.1 Covered Storm Water Discharges

The requirements in Part 3.4.22 apply to storm water discharges associated with industrial activity from Textile Mills, Apparel, and Other Fabric Product manufacturing facilities, as identified by the SIC Codes specified under Sector V in Table 3.4-A.

3.4.22.2 Limitations on Coverage

3.4.22.2.1 Prohibited Discharges

(See also Part 1.1.4.) The following are not authorized by this permit: discharges of wastewater (e.g., wastewater resulting from wet processing or from any processes relating to the production process), reused or recycled water, and waters used in cooling towers. If the permittee has these types of discharges from the facility, the permittee must cover them under a separate MPDES permit.

3.4.22.3 Additional Technology-Based Limitations

3.4.22.3.1 Good Housekeeping Measures

(See also Part 2.2.2.)

3.4.22.3.1.1 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 storm water 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 wash water from these cleanings properly.

3.4.22.3.1.2 Material Handling Areas

Minimize contamination of storm water 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.

3.4.22.3.1.3 Fueling Areas

Minimize contamination of storm water runoff from fueling areas. Consider the following (or their equivalents): covering the fueling area, using spill and overflow protection, minimizing run-on of storm water to the fueling areas, using dry cleanup methods, and treating and/or recycling storm water runoff collected from the fueling area.

3.4.22.3.1.4 Above-Ground Storage Tank Area

Minimize contamination of the storm water 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 the SPCC program; minimizing runoff of storm water 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.

3.4.22.4 Employee Training

(See also Part 2.2.8.) As part of the 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.

3.4.22.5 Additional SWPPP Requirements

3.4.22.5.1 Potential Pollutant Sources

(See also Part 3.1.6.) Document in the SWPPP the following additional sources and activities that have potential pollutants associated with them: industry-specific 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).

3.4.22.5.2 Description of Good Housekeeping Measures for Material Storage Areas

Document in the SWPPP the containment area or enclosure for materials stored outdoors.

3.4.22.6 Additional Inspection Requirements

(See also Part 2.4.) 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.

3.4.22.7 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.22-A identifies indicator monitoring that applies to the specific subsectors of Sector V.

Table 3.4.22-A

Subsector	Parameter	Monitoring Threshold
Subsector V1: Textile Mill Products (SIC Code 2211-2299); Apparel and Other Finished Products Made from Fabrics and Similar Materials (SIC Code 2311-2399); Leather and Leather Products (note: see Sector Z1 for Leather Tanning and Finishing) (SIC Code 3131-3199)	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.4.23 Sector W: Furniture and Fixtures

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.23.1 Covered Storm Water Discharges

The requirements in Part 3.4.23 apply to storm water discharges associated with industrial activity from Furniture and Fixtures facilities, as identified by the SIC Codes specified under Sector W in Table 3.4-A.

3.4.23.2 Additional SWPPP Requirements

3.4.23.2.1 Drainage Area Site Map

(See also Part 3.1.5.) Document in the SWPPP where any of the following may be exposed to precipitation or surface runoff: material storage (including tanks or other vessels used for liquid or waste storage) areas; outdoor material processing areas; areas where wastes are treated, stored, or disposed of; access roads; and rail spurs.

3.4.23.3 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.23-A identifies indicator monitoring that applies to the specific subsectors of Sector W.

Table 3.4.23-A

Subsector	Parameter	Monitoring Threshold
Subsector W1: Wood Kitchen Cabinets (SIC Code 2434); Furniture and Fixtures (SIC Code 2511-2599)	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.4.24 Sector X: Printing and Publishing

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.24.1 Covered Storm Water Discharges

The requirements in Part 3.4.24 apply to storm water discharges associated with industrial activity from Printing and Publishing facilities, as identified by the SIC Codes specified under Sector X in Table 3.4-A.

3.4.24.2 Additional Technology-Based Effluent Limits

3.4.24.2.1 Good Housekeeping Measures

(See also Part 2.2.2.)

3.4.24.2.1.1 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 storm water runoff from such storage areas. Also consider an inventory control plan to prevent excessive purchasing of potentially hazardous substances.

3.4.24.2.1.2 Material Handling Area

Minimize contamination of storm water 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.

3.4.24.2.1.3 Fueling Areas

Minimize contamination of storm water runoff from fueling areas. Consider the following (or their equivalents): covering the fueling area, using spill and overflow protection, minimizing runoff of storm water to the fueling areas, using dry cleanup methods, and treating and/or recycling storm water runoff collected from the fueling area.

3.4.24.2.1.4 Above Ground Storage Tank Area

Minimize contamination of the storm water 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 storm water 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.

3.4.24.2.2 Employee Training

(See also Part 2.2.8.) As part of the 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.

3.4.24.3 Additional SWPPP Requirements

3.4.24.3.1 Description of Good Housekeeping Measures for Material Storage Areas

Describe in the SWPPP the containment area or enclosure for materials stored outdoors.

3.4.24.4 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.24-A identifies indicator monitoring that applies to the specific subsectors of Sector W.

Table 3.4.24-A

Subsector	Parameter	Monitoring Threshold

Subsector X1: Printing, Publishing, and Allied Industries (SIC Code 2711-2796)	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.4.25 Sector Y: Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.25.1 Covered Storm Water Discharges

The requirements in Part 3.4.25 apply to storm water discharges associated with industrial activity from Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries facilities, as identified by the SIC Codes specified under Sector A in Table 3.4-A.

3.4.25.2 Additional Technology-Based Effluent Limits

3.4.25.2.1 Controls for Rubber Manufacturers

(See also Part 2.2.) Minimize the discharge of zinc in the storm water discharges. Part 3.4.25.2.1.1 and Part 3.4.25.2.1.5 gives possible sources of zinc to be reviewed and list some specific control measures to be considered for implementation (or their equivalents). 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.

3.4.25.2.1.1 Zinc Bags

Ensure proper handling and storage of zinc bags at the 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.

3.4.25.2.1.2 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.

3.4.25.2.1.3 Dust Collectors and Baghouses

Minimize contributions of zinc to storm water from dust collectors and baghouses. Replace or repair, as appropriate, improperly operating dust collectors and baghouses.

3.4.25.2.1.4 Grinding Operations

Minimize contamination of storm water as a result of dust generation from rubber grinding operations. One control measure option is to install a dust collection system.

3.4.25.2.1.5 Zinc Stearate Coating Operations

Minimize the potential for storm water 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.

3.4.25.2.2 Controls for Plastic Products Manufacturers

Minimize the discharge of plastic resin pellets in the storm water 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.

3.4.25.3 Additional SWPPP Requirements

3.4.25.3.1 Potential Pollutant Sources for Rubber Manufacturers

(See also Part 3.1.6.) Document in the SWPPP the use of zinc at the facility and the possible pathways through which zinc may be discharged in storm water runoff.

3.4.25.4 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.25-A identifies indicator monitoring that applies to the specific subsectors of Sector Y.

Table 3.4.25-A

Subsector	Parameter	Monitoring Threshold
Subsector Y2: Miscellaneous Plastics Products (SIC Code 3081-3089); Musical Instruments (SIC Code 3931); Dolls, Toys, Games, and Sporting and Athletic Goods (SIC Code 3942-3949); Pens, Pencils, and Other Artists' Materials (SIC Code 3951-3955 (except 3952 – see Sector C)); Costume Jewelry, Costume Novelties, Buttons, and Miscellaneous Notions, Except Precious Metal (SIC Code 3961, 3965); Miscellaneous Manufacturing Industries (SIC Code 3991-3999)	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.4.25.5 Sector-Specific Benchmark Monitoring

(See also Part 2.6.2.) Table 3.4.25-B identifies benchmarks that apply to the specific subsectors of Sector Y. These benchmarks apply to the primary industrial activity which describes the site activities.

Table 3.4.25-B

Subsector	Parameter	Benchmark Monitoring Concentration
Subsector Y1. Rubber Products Manufacturing (SIC 3011, 3021, 3052, 3053, 3061, 3069)	Total Zinc[(1)]	Hardness Dependent

[(1)] The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (Part 3.5) and use the table below to identify the corresponding benchmark value.

Hardness Dependent benchmark values for this sector are in the table below:

Water Hardness Range	Zinc (mg/L)
0-25 mg/L	0.037
25-50 mg/L	0.052
50-75 mg/L	0.080
75-100 mg/L	0.11

100-125 mg/L	0.13
125-150 mg/L	0.16
150-175 mg/L	0.18
175-200 mg/L	0.20
200-225 mg/L	0.23
225-250 mg/L	0.25
250+ mg/L	0.26

3.4.26 Sector Z: Leather Tanning and Finishing

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.26.1 Covered Storm Water Discharges

The requirements in Part 3.4.26 apply to storm water discharges associated with industrial activity from Leather Tanning and Finishing facilities, as identified by the SIC Codes specified under Sector Z in Table 3.4-A.

3.4.26.2 Additional Technology-Based Effluent Limits

3.4.26.2.1 Good Housekeeping Measures

(See also Part 2.2.2.)

3.4.26.2.1.1 Storage Areas for Raw, Semiprocessed, or Finished Tannery By-products

Minimize contamination of storm water 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 storm water run-on and runoff.

3.4.26.2.1.2 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 storm water.

3.4.26.2.1.3 Buffing and Shaving Areas

Minimize contamination of storm water runoff with leather dust from buffing and shaving areas. Consider dust collection enclosures, preventive inspection and maintenance programs, or other appropriate preventive measures.

3.4.26.2.1.4 Receiving, Unloading, and Storage Areas

Minimize contamination of storm water 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 storm water runoff.

3.4.26.2.1.5 Outdoor Storage of Contaminated Equipment

Minimize contact of storm water with contaminated equipment. Consider the following (or their equivalents): covering equipment, diverting drainage to the process sewer, and cleaning thoroughly prior to storage.

3.4.26.2.1.6 Waste Management

Minimize contamination of storm water 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 storm water runoff by enclosing the area or building berms around the area.

3.4.26.3 Additional SWPPP Requirements

3.4.26.3.1 Drainage Area Site Map

(See also Part 3.1.5.) Identify in the SWPPP 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.

3.4.26.3.2 Potential Pollutant Sources

(See also Part 3.1.6.) Document in the SWPPP 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.

3.4.26.4 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.26-A identifies indicator monitoring that applies to the specific subsectors of Sector Z.

Table 3.4.26-A

Subsector	Parameter	Monitoring Threshold
Subsector Z1: Leather Tanning and Finishing (SIC Code 3111)	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.4.27 Sector AA: Fabricated Metal Products

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.27.1 Covered Storm Water Discharges

The requirements in Part 3.4.27 apply to storm water discharges associated with industrial activity from Fabricated Metal Products facilities, as identified by the SIC Codes specified under Sector AA in Table 3.4-A.

3.4.27.2 Additional Technology-Based Effluent Limits

3.4.27.2.1 Good Housekeeping Measures

(See also Part 2.2.2.)

3.4.27.2.1.1 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.

3.4.27.2.1.2 Paints and Painting Equipment

Minimize exposure of paint and painting equipment to storm water.

3.4.27.2.2 Spill Prevention and Response Procedures

(See also Part 2.2.4.) Ensure that the necessary equipment to implement a cleanup is available to personnel. The following areas should be addressed:

3.4.27.2.2.1 Metal Fabricating Areas

Maintain clean, dry, orderly conditions in these areas. Consider using dry clean-up techniques.

3.4.27.2.2.2 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.

3.4.27.2.2.3 Metal Working Fluid Storage Areas

Minimize the potential for storm water contamination from storage areas for metal working fluids.

3.4.27.2.2.4 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.

3.4.27.2.2.5 Lubricating Oil and Hydraulic Fluid Operations

Minimize the potential for storm water 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.

3.4.27.2.2.6 Chemical Storage Areas

Minimize storm water contamination and accidental spillage in chemical storage areas. Include a program to inspect containers and identify proper disposal methods.

3.4.27.2.3 Spills and Leaks

In the spill prevention and response procedures, required by Part 2.2.4, 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.

3.4.27.3 Additional SWPPP Requirements

3.4.27.3.1 Drainage Area Site Map

(See also Part 3.1.5.) Document in the SWPPP 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.

3.4.27.3.2 Potential Pollutant Sources

(See also Part 3.1.6.) Document in the SWPPP 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.

3.4.27.4 Additional Inspection Requirements

3.4.27.4.1 Inspections

(See also Part 2.4.) 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.

3.4.27.4.2 Routine Site Inspections

(See also Part 2.4.2.) As part of the routine inspection, 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.

3.4.27.5 Sector-Specific Benchmark Monitoring

(See also Part 2.6.2.) Table 3.4.27-A identifies benchmarks that apply to the specific subsectors of Sector AA. These benchmarks apply to the primary industrial activity which describes the site activities.

Table 3.4.27-A

Subsector	Parameter	Benchmark Monitoring Concentration
Subsector AA1. Fabricated Metal Products, except Coating (SIC 3411-3499; 3911-3915)	Total Aluminum	1.1 mg/L
	Total Zinc[(1)]	Hardness Dependent
	Nitrate plus Nitrite Nitrogen	0.68 mg/L
Subsector AA2. Fabricated Metal Coating and Engraving (SIC 3479)	Total Zinc[(1)]	Hardness Dependent
	Nitrate plus Nitrite Nitrogen	0.68 mg/L

[(1)] The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness of the receiving water (Part 3.5) and use the table below to identify the corresponding benchmark value.

Hardness Dependent benchmark values for this sector are in the table below:

Water Hardness Range	Zinc (mg/L)
0-25 mg/L	0.037
25-50 mg/L	0.052
50-75 mg/L	0.080
75-100 mg/L	0.11
100-125 mg/L	0.13
125-150 mg/L	0.16
150-175 mg/L	0.18
175-200 mg/L	0.20
200-225 mg/L	0.23
225-250 mg/L	0.25

250+ mg/L	0.26

3.4.28 Sector AB: Transportation Equipment, Industrial or Commercial Machinery

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.28.1 Covered Storm Water Discharges

The requirements in Part 3.4.28 apply to storm water discharges associated with industrial activity from Transportation Equipment, Industrial or Commercial Machinery and Repair Yard facilities, as identified by the SIC Codes specified under Sector AB in Table 3.4-A.

3.4.28.2 Additional SWPPP Requirements

3.4.28.2.1 Drainage Area Site Map

(See also Part 3.1.5.) Identify in the SWPPP where any of the following may be exposed to precipitation or surface runoff: vents and stacks from metal processing and similar operations

3.4.28.3 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.28-A identifies indicator monitoring that applies to the specific subsectors of Sector AB.

Table 3.4.28-A

Subsector	Parameter	Monitoring Threshold
Subsector AB1: Industrial and Commercial Machinery, Except Computer and Office Equipment (see Sector AC) (SIC Code 3511-3599 (except 3571-3579)); Transportation Equipment Except Ship and Boat Building and Repairing (see Sector R) (SIC Code 3711-3799 (except 3731,3732))	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.4.29 Sector AC: Electronic and Electrical Equipment and Components, Photographic and Optical Goods

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.29.1 Covered Storm Water Discharges

The requirements in Part 3.4.29 apply to storm water discharges associated with industrial activity from Electronic and Electrical Equipment and Components, Photographic and Optical Goods facilities, as identified by the SIC Codes specified under Sector AC in Table 3.4-A.

3.4.29.2 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.29-A identifies indicator monitoring that applies to the specific subsectors of Sector AB.

Table 3.4.29-A		
Subsector	**Parameter**	**Monitoring Threshold**
Subsector AC1: Computer and Office Equipment (SIC Code 3571-3579); Measuring, Analyzing, and Controlling Instruments; Photographic and Optical Goods, Watches, and Clocks (SIC Code 3812-3873); Electronic and Electrical Equipment and Components, Except Computer Equipment (SIC Code 3612-3699)	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.4.30 Sector AD: Non-Classified Facilities - Storm Water Discharges Designated by the Department as Requiring Permits

The permittee must comply with sector-specific requirements associated with the primary industrial activity as defined in Part 3.4. These requirements apply to areas of the facility where those sector-specific activities occur. The following sector-specific requirements are in addition to the general requirements elsewhere in the permit.

3.4.30.1 Covered Storm Water Discharges

Sector AD is used to provide permit coverage for facilities designated by the Department as needing a storm water permit, and any discharges of storm water associated with industrial activity that do not meet the description of an industrial activity covered by Sectors A-AC.

3.4.30.1.1 Eligibility for Permit Coverage

Because this sector is primarily intended for use by discharges designated by the Department as needing a storm water permit (which is an atypical circumstance), and the facility may or may not normally be discharging storm water associated with industrial activity, the permittee must obtain the Department's written permission to use this permit prior to submitting an NOI. If the permittee is authorized to use this permit, the permittee will still be required to ensure that the discharges meet the basic eligibility provisions of this permit at Part 1.1.

3.4.30.2 Sector-Specific Benchmark Monitoring and Effluent Limits

(See also Part 2.6.) The Department will establish any additional monitoring and reporting requirements for the facility prior to authorizing the permittee to be covered by this permit. Additional monitoring requirements would be based on the nature of activities at the facility and the storm water discharges.

3.4.30.3 Sector-Specific Indicator Monitoring

(See also Part 2.6.1.) Table 3.4.30-A identifies indicator monitoring that applies to the specific subsectors of Sector AD.

Table 3.4.30-A

Subsector	Parameter	Monitoring Threshold
Subsector AD1: Other stormwater discharges designated by the Director as needing a permit (see 40 CFR 122.26(a)(9)(i)(C) & (D)) or any facility discharging stormwater associated with industrial activity not described by any of Sectors A-AC. NOTE: Facilities may not elect to be covered under Sector AD. Only the Director may assign a facility to Sector AD.	Chemical Oxygen Demand (COD)	Report only
	Total Suspended Solids (TSS)	Report only
	pH	Report only

3.5 Calculating Hardness in Receiving Waters for Hardness-Dependent Metals

The benchmark values for certain metals are determined by receiving water hardness. The permittee must acquire hardness data from the facility's receiving water(s) and find the corresponding benchmark values using the hardness ranges in Table 3.5-A.

Table 3.5-A - Hardness Ranges to Determine Benchmark Values for Cadmium, Lead, Nickel, Silver, and Zinc.

Water Hardness	Benchmark Values (mg/L, total)				
	Cadmium	Lead	Nickel	Silver	Zinc
0-24.99 mg/L	0.00049	0.014	0.15	0.00037	0.037
25-49.99 mg/L	0.00073	0.024	0.20	0.00080	0.052
50-74.99 mg/L	0.0012	0.045	0.31	0.0019	0.080
75-99.99 mg/L	0.0017	0.069	0.42	0.0033	0.11
100-124.99 mg/L	0.0021	0.10	0.52	0.0050	0.13
125-149.99 mg/L	0.0026	0.12	0.61	0.0071	0.16
150-174.99 mg/L	0.0031	0.15	0.71	0.0094	0.18
175-199.99 mg/L	0.0035	0.18	0.80	0.012	0.20
200-224.99 mg/L	0.0040	0.21	0.89	0.015	0.23
225-249.99 mg/L	0.0044	0.25	0.98	0.018	0.25
250+ mg/L	0.0047	0.26	1.0	0.020	0.26

3.5.1 How to Determine Hardness for Hardness-Dependent Parameters

The permittee may select one of three methods to determine hardness, including: individual grab sampling, grab sampling by a group of operators which discharge to the same receiving water, or using third-party data. Regardless of the method used, the permittee is responsible for documenting the procedures used for determining hardness values. Once the hardness value is established, the permittee is required to include this information in the first monitoring report submitted to the Department to make appropriate comparisons between the benchmark monitoring results and the corresponding benchmark. The three methods for determining hardness are detailed in the following sections.

3.5.1.1 Permittee Samples for Receiving Stream Hardness

This method involves collecting samples in the receiving water and submitting these to a laboratory for analysis. If the permittee elects to sample the receiving water(s) and submit samples for analysis, hardness must be determined from the closest intermittent or perennial stream downstream of the point of discharge. The sample can be collected during either dry or wet weather. Collection of the sample during wet weather is more representative of conditions during storm water discharges; however, collection of in-stream samples during wet weather events may be impracticable or present safety issues.

Hardness must be sampled and analyzed using approved methods as described in 40 CFR Part 136 (Guidelines Establishing Test Procedures for the Analysis of Pollutants).

3.5.1.2 Group Monitoring for Receiving Stream Hardness

The permittee can be part of a group of permittees discharging to the same receiving waters and collect samples that are representative of the hardness values for all members of the group. In this scenario,

hardness of the receiving water must be determined using 40 CFR Part 136 procedures and the results shared by group members. To use the same results, hardness measurements must be taken on a stream reach within a reasonable distance of the discharge points of each of the group members.

3.5.1.3 Collection of Third-Party Hardness Data

The permittee can submit receiving stream hardness data collected by a third party provided the results are collected consistent with the approved 40 CFR Part 136 methods. These data may come from a local water utility, previously conducted stream reports, TMDLs, peer reviewed literature, other government publications, or data previously collected by the permittee. Data should be less than 10 years old.

Water quality data for many of the nation's surface waters are available on-line or by contacting EPA or a state environmental agency. EPA's data system STORET is a repository for receiving water quality, biological, and physical data and is used by state environmental agencies, EPA and other federal agencies, universities, private citizens, and many others. Similarly, state environmental agencies and the U.S. Geological Service (USGS) also have water quality data available that, in some instances, can be accessed online. "Legacy STORET" codes for hardness include: 259 hardness, carbonate; 260 hardness, noncarbonated; and 261 calcium + magnesium, while more recent, "Modern STORET" data codes include: 00900 hardness, 00901 carbonate hardness, and 00902 noncarbonate hardness; or the discrete measurements of calcium (00915) and magnesium (00925) can be used to calculate hardness. Hardness data historically has been reported as "carbonate," "noncarbonate," or "Ca + Mg." If these are unavailable, hardness can be calculated from individual results for calcium (*Ca*) and magnesium (*Mg*) using the following equation:

$$CaCO_3\ (mg/L) = 2.497\ Ca\ (mg/L) + 4.118\ Mg\ (mg/L)$$

When interpreting the data for carbonate and non-carbonate hardness, note that total hardness is equivalent to the sum of carbonate and noncarbonate hardness if both forms are reported. If only carbonate hardness is reported, it is more than likely that noncarbonate hardness is absent and the total hardness is equivalent to the available carbonate hardness.

4 STANDARD CONDITIONS

4.1 Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Montana Water Quality Act and is grounds for enforcement action; for termination under the General Permit; for revocation and reissuance of a confirmation letter; for a modification requirement; or for denial of coverage under the General Permit (new or renewed). The permittee shall give the Department advance notice of any planned changes at the permitted facility or of an activity which may result in permit noncompliance.

4.2 Penalties for Violations of Permit Conditions

The Montana Water Quality Act at MCA 75-5-631 provides that in an action initiated by the Department to collect civil penalties against a person who is found to have violated a permit condition of this Act is subject to a civil penalty not to exceed $25,000. Each day of violation constitutes a separate violation.

The Montana Water Quality Act at MCA 75-5-632 provides that any person who willingly or negligently violates a prohibition or permit condition of the Act is guilty of an offense, and upon conviction, is subject to a fine not to exceed $25,000 per day of violation or imprisonment for not more than one year, or both, for the first conviction. Following an initial conviction, any subsequent convictions subject a person to a fine of up to $50,000 per day of violation or by imprisonment for not more than two years, or both.

The Montana Water Quality Act at MCA 75-5-611 provides for administrative penalties not to exceed $10,000 for each day of violation and up to a maximum not to exceed $100,000 for any related series of violations. Except as provided in permit conditions “Bypass of Treatment Facilities” and “Upset Conditions”, nothing in this permit shall be construed to relieve the permittee of the civil or criminal penalties for noncompliance.

4.3 Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The reapplication must be submitted at least 30 days before the expiration date of this permit.

4.4 Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee 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.

4.5 Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

4.6 Proper Operation and Maintenance

The permittee shall 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 permittee 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 permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

4.7 Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

4.8 Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

4.9 Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

4.10 Inspection and Entry

The permittee shall allow the head of the Department, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:

- Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.
- Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.
- Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and as otherwise authorized by the Montana Water Quality Act, any substances or parameters at any location.
- Sample, or monitor at reasonable times for the purpose of assuring permit compliance, any substances or parameters at any location.

4.11 Availability of Reports

Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. As required by the Clean Water Act, applications, permits and effluent data shall not be considered confidential.

4.12 Reporting Requirements- Monitoring and Monitoring Reports

The Department may require a permittee to monitor in addition to any conditions in this permit, on a case-by-case basis. If monitoring is required, the Department will specify monitoring requirements to include, and not limited to, storm water sampling, analytical testing, and an evaluation of monitoring results, recording, and reporting. Monitoring results must be reported on a discharge monitoring report (DMR) or as required by the Department. Monitoring results must be reported at the intervals specified.

If the permittee monitors any pollutant more frequently than required, using approved test procedures, the results of this monitoring must be included in the calculation and reporting of data submitted in the DMR. Calculations for all limitations which require averaging of measurements must utilize an arithmetic mean unless otherwise specified by the Department.

4.13 Monitoring and Records- Representative Sampling

Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.

4.14 Monitoring and Records- Retention of Records

The permittee shall retain records of all monitoring information including all calibrations and maintenance records and 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 three years from the date of the sample, measurement, report, or application. This period may be extended by request of the Department at any time.

4.15 Monitoring and Records- Records Content

Records of monitoring information must include:

- The date, exact place, and time of sampling or measurements.
- The individual(s) who performed the sampling or measurements.
- The date(s) analyses were performed.
- The individual(s) who performed the analyses.
- The analytical techniques or methods used.
- The results of such analyses.

4.16 Monitoring and Records- Test Procedures

Monitoring must be conducted according to test procedures approved under Title 40 of the Code of Federal regulations (40 CFR) Part 136, unless other test procedures have been specified in this permit, confirmation letter, or by the Department.

4.17 Monitoring and Records-Penalties for Falsification of Reports and Tampering

The Montana Water Quality Act at MCA 75-5-633 provides that any person who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method, or 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 shall, upon conviction be punished by a fine of not more than $25,000 per violation, or by imprisonment for not more than six months per violation, or by both.

4.18 Signatory Requirements

4.18.1 Authorized Representatives

All applications, reports or information submitted to the Department or the EPA shall be signed by an appropriate signatory certified in accordance with ARM 17.30.1323.

4.18.1.1 Signatory Authority

All permit applications, terminations, modifications, and transfers must be signed as follows:

- For a corporation, by a responsible corporate officer. A responsible corporate officer means:
  - a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation;
  - or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- For a partnership or sole proprietorship, by a general partner or the proprietor, respectively.
- For a municipality, state, federal, or other public agency, by either a principal executive officer or ranking elected official. A principal executive officer of a federal agency includes:
  - the chief executive officer of the agency; or

- a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

4.18.1.2 Duly Authorized Representative

All reports required by the permit and other information requested by the Department shall be signed by a person described above or by a duly authorized representative of that person. A person is considered a duly authorized representative only if:

- The authorization is made in writing by a person described above and submitted to the Department.
- The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may be either a named individual or an individual occupying a named position.

4.18.2 Changes to Authorization

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

4.18.3 Certification

Any person signing a document as a signatory or a duly authorized representative shall make the following certification:

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

4.19 Reporting Requirements - Planned Changes

The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility, activity, or operation.

Notice is required only when:

- The alteration or addition to the permitted facility, activity, or operation may meet one of the criteria for determining whether a facility is a new source.
- The alteration or addition could significantly change the nature or increase the quantity of pollutant discharged. This notification applies to pollutants which are not subject to effluent limitations in the permit.

4.20 Reporting Requirements - Anticipated Noncompliance

The permittee shall give advance notice to the Department of any planned changes in the permitted facility/activity/operation which may result in noncompliance with permit requirements. The permittee shall notify as soon as possible by phone and provide with the following information, in writing, within five (5) days of becoming aware of such condition:

- A description of the discharge and cause of noncompliance.

- The period of noncompliance including exact dates and times, or if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the non-complying discharge.

4.21 Reporting Requirements - Transfers

Permit coverage is not transferable to any person except after notice is given to the Department and a transfer fee is paid. The Permit Transfer Notification (PTN) form provided by the Department must be completed and must be received by the Department at least 30 days prior to the anticipated date of transfer. The form must be signed by both the existing owner/operator and the new owner/operator following the signatory requirements of Part 4.18 of the General Permit.

4.22 Reporting Requirements - Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim, and final requirements contained in any compliance schedule of this permit or required by the Department shall be submitted no later than 14 days following each schedule date.

4.23 Reporting Requirements - Twenty-four Hour Reporting

The permittee shall report any serious incident of noncompliance affecting the environment. Any information must be provided orally within 24 hours from the time the permittee first becomes aware of the following circumstances:

- Any noncompliance which may seriously endanger health or the environment.
- Any unanticipated bypass which exceeds any effluent limitation in the permit.
- Any upset which exceeds any effluent limitation in the permit/
- As applicable, violation of a maximum daily discharge limit of any pollutant listed by the Department in the General Permit or confirmation letter.

A written submission shall also be provided within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:

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

4.23.1 Oral Notification

The report shall be made orally to the Water Protection Bureau at (406) 444-5546 or the Office of Disaster and Emergency Services at (406) 324-4777.

4.23.2 Waiver of written notification requirement

The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the Water Protection Bureau, by phone, (406) 444-3080. Written reports shall be submitted to the following address:

Montana Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, Montana 59620-0901

4.24 Reporting Requirements- Other Noncompliance

Instances of noncompliance not required to be reported within 24 hours shall be reported as soon as possible. The reports shall contain the information listed above for written submissions under Part 4.23.

4.25 Reporting Requirements- Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application package, or submitted incorrect information in a permit application package or any report to the Department, it shall promptly submit such facts or information.

4.26 Bypass

Intentional diversions of untreated waste streams from any portion of a treatment facility are prohibited unless:

- The bypass does not cause effluent to exceed effluent limitations and is necessary for essential maintenance to ensure efficient operation.
- The bypass is unavoidable to prevent loss of life, personal injury, or severe property damage.
- There are no feasible alternatives.
- The proper notification is submitted.

Bypass is prohibited and the Department may take enforcement action against a permittee for a bypass. If the permittee knows in advance of the need for anticipated bypass, it shall submit prior notice, if possible, at least ten days before the date of the bypass. The Department may approve an anticipated bypass, after considering its adverse effects. The permittee shall submit notice of an unanticipated bypass as required under Part 4.23.

4.27 Upset Conditions

An upset may be used as an affirmative defense in actions brought to the permittee for noncompliance with a technology-based effluent limitation. The permittee (who has the burden of proof) must have operational logs or other evidence showing:

- When the upset occurred and its causes.
- That the facility was being operated properly.
- Proper notification was made.
- Remedial measures were taken as required by the duty to mitigate standard condition.

4.28 Fees

The permittee is required to submit payment of an annual fee as set forth in ARM 17.30.201. If the permittee fails to pay the annual fee within 90 days after the due date for the payment, the Department may:

- Impose an additional assessment computed at the rate established under ARM 17.30.201: and,
- Suspend the processing of the application for a permit or authorization or, if the nonpayment involves an annual permit fee, suspend the permit, certificate or authorization for which the fee is required. The Department may lift suspension at any time up to one year after the suspension occurs if the holder has paid all outstanding fees, including all penalties, assessments and interest imposed under this sub-section. Suspensions are limited to one year, after which the permit will be terminated.

4.29 Removed Substances

Collected screenings, grit, solids, sludges, or other pollutants removed in the course of treatment shall be disposed of in such a manner so as to prevent any pollutant from entering any waters of the state or creating a health hazard.

4.30 Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.

4.31 Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

4.32 Reopener Provisions

This permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations (and compliance schedule, if necessary), or other appropriate requirements if one or more of the following events occurs:

- Water Quality Standards: The water quality standards of the receiving water(s) to which the permittee discharges are modified in such a manner as to require different permit conditions than contained in this permit.
- Water Quality Standards are Exceeded: If it is found that water quality standards or trigger values in the receiving stream are exceeded either for parameters included in the permit or others, the Department may modify the permit conditions or water management plan.
- TMDL or Wasteload Allocation: TMDL requirements or a wasteload allocation is developed and approved by the Department and/or EPA for incorporation in this permit.
- Water Quality Management Plan: A revision to the current water quality management plan is approved and adopted which calls for different effluent limitations than contained in this permit.

4.33 Toxic Pollutants

The permittee shall comply with effluent standards or prohibitions established for toxic pollutants which are present in the discharge, within any specified timeframe within rule or thereof, and even if the General Permit or confirmation letter has not yet been modified to incorporate such standard or prohibition for the toxic pollutant.

5 DEFINITIONS AND ABBREVIATIONS

The following definitions and abbreviations apply to terms used in this permit:

“Act” means the Montana Water Quality Act, Title 75, chapter 5, MCA.

"Best Management Practices" ("BMPs") means schedule of activities, prohibition of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of state surface waters. 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.

"Board" means the Montana Board of Environmental Review established by 2-15-3502, MCA.

"Discharge monitoring report (DMR)" means the Department uniform form for the reporting of self-monitoring results by permittees.

“EPA” or “USEPA” means the United States Environmental Protection Agency.

"Facility or activity" means any MPDES point source or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the MPDES program.

"Flow-weighted composite sample" means a composite sample consisting of a mixture of aliquots collected at a constant time interval, where the volume of each aliquot is proportional to the flow rate of the discharge.

"General permit" means an MPDES permit issued under ARM 17.30.1341 authorizing a category of discharges under the Act within a geographical area.

"Grab Sample" for monitoring requirements is defined as a single "dip and take" sample collected at a representative point in the discharge stream.

"Landfill" means an area of land or an excavation in which wastes are placed for permanent disposal, and which is not a land application unit, surface impoundment, injection well, or waste pile.

"Land application unit" means an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for treatment or disposal.

"Montana pollutant discharge elimination system (MPDES)" means the system developed by the Board and Department for issuing permits for the discharge of pollutants from point sources into state surface waters. The MPDES is specifically designed to be compatible with the federal MPDES program established and administered by the EPA.

“Naturally occurring” means conditions or material present from runoff or percolation over which man has no control or from developed land where all reasonable land, soil and water conservation practices have been applied. Conditions resulting from the reasonable operation of dams in existence as of July 1, 1971, are natural.

“Outfall” means the locations where storm water discharges, or there is the potential for storm water to discharge, to state water and/or where storm water leaves the industrial site. Outfalls can include discharges from conveyances such as pipes, tunnels, or swales to state waters. Outfalls can also

be identified in a general area where sheet flow of storm water discharges can occur. Sometimes the actual receiving waterbody may be some distance from the industrial site; in such cases, the facility's outfall can be location(s) where storm water discharges from the industrial site. Constructing a structural control measure such as a berm or barrier where there is a potential to discharge storm water off-site does not eliminate the outfall and the location is required to be identified as an outfall.

"Owner or operator" means a person who owns, leases, operates, controls, or supervises a point source (75-5-103, MCA).

"Permit" means an authorization or license issued by EPA or an "approved state" to implement the requirements of this rule and 40 CFR Parts 123 and 124. "Permit" includes an NPDES general permit (ARM 17.30.1341). Permit does not include any permit that has not yet been the subject of final agency action, such as a "draft permit" or a "proposed permit".

"Point source" means a discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, or vessel or other floating craft, from which pollutants are or may be discharged.

"Pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural wastes discharged into water. The terms "sewage," "industrial waste," and "other wastes" as defined in 75-5-103, MCA, are interpreted as having the same meaning as pollutant.

"Process Wastewater" means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

"Regional Administrator" is the administrator of the EPA Region with jurisdiction over federal water pollution control activities in the State of Montana.

"Runoff coefficient" means the fraction of total rainfall that will appear at the conveyance as runoff.

"Severe property damage" means substantial physical damage to property, damage to treatment facilities 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.

"Site" means the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity.

"State waters" means a body of water, irrigation system, or drainage system, either surface or underground (75-5-103, MCA). The term does not apply to:

(a) ponds or lagoons used solely for treating, transporting, or impounding pollutants; or

(b) irrigation waters or land application disposal waters when the waters are used up within the irrigation or land application disposal system and the waters are not returned to state waters.

"Storm water" means storm water runoff from precipitation, snowmelt runoff, and surface runoff and drainage.

"Storm water discharge associated with industrial activity" means a discharge from any conveyance that is used for collecting and conveying storm water and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant.

(a) For the categories of industries identified in this definition, the term includes, but is not limited to, storm water discharges from industrial plant yards; 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; material handling sites; refuse sites; sites used for the application or disposal of process wastewaters (as defined in this subchapter); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water.

(b) For the categories of industries identified in (e)(ix) of this definition, the term includes only storm water discharges from all the areas (except access roads and rail lines) that are listed in the previous sentence where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water.

(c) For the purposes of this definition, material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product, or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas.

(d) Industrial facilities (including industrial facilities that are federally, state, or municipally owned or operated that meet the description of the facilities listed in (e)(i) through (ix) and (30)) include those facilities designated under the provisions of ARM 17.30.1105(1)(f).

(e) The following categories of facilities are considered to be engaging in "industrial activity" for the purposes of this definition:

(i) facilities subject to storm water effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards under 40 CFR subchapter N (except facilities with toxic pollutant effluent standards that are exempted under category (e)(ix) of this definition);

(ii) facilities classified as standard industrial classifications 24 (except 2434), 26 (except 265 and 267), 28 (except 283), 29, 311, 32 (except 323), 33, 3441, 373;

(iii) hazardous waste treatment, storage, and disposal facilities, including those that are operating under interim status or a permit under subtitle C of the federal Resource Conservation and Recovery Act (RCRA);

(iv) landfills, land application sites, and open dumps that receive or have received any industrial wastes (waste that is received from any of the facilities described under this definition, or under the definitions of "storm water discharge associated with mining and oil and gas activities," and "storm water discharge associated with construction activity" that will result in construction-related disturbance of five acres or more of total land area) including those that are subject to regulation under subtitle D of RCRA;

(v) facilities involved in the recycling of materials, including metal scrapyards, battery reclaimers, salvage yards, and automobile junkyards including, but not limited to, those classified as standard industrial classification 5015 and 5093;

(vi) steam electric power generating facilities, including coal handling sites;

(vii) transportation facilities classified as standard industrial classifications 40, 41, 42 (except 4221-25), 43, 44, 45, and 5171, which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations. Only those portions of a facility that are involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, airport deicing operations, or that are otherwise identified under this definition are associated with industrial activity;

(viii) treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, which is used in the storage, treatment, recycling, or reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that is located within the confines of the facility, and which has a design flow of 1.0 mgd or more or is required to have an approved pretreatment program under 40 CFR Part 403. Not included are farm lands, domestic gardens, and lands used for sludge management where sludge is beneficially reused and that are not physically located in the confines of the facility, and areas that are in compliance with section 405 of the federal Clean Water Act; and

(ix) facilities under standard industrial classifications 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 285, 30, 31 (except 311), 323, 34 (except 3441), 35, 36, 37 (except 373), 38, 39, and 4221-25, (and which are not otherwise included within (e)(i) through (e)(viii) of this definition).

"Storm water discharge associated with mining and oil and gas activity" means the same as the definition for "storm water discharges associated with industrial activity" except that the term pertains only to discharges from facilities classified as standard industrial classifications 10 through 14 (mineral industry) that discharge storm water contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts, or waste products located on the site of such operations. Such facilities include active and inactive mining operations (except for areas of coal mining operations no longer meeting the definition of a reclamation area under 40 CFR 434.11(1) because the performance bond issued to the facility by the appropriate SMCRA authority has been released, and except for areas of non-coal mining operations that have been released from applicable state or federal reclamation requirements after December 17, 1990); and oil and gas exploration, production, processing, or treatment operations; and transmission facilities. "Inactive mining operations" are mining sites that are not being actively mined but that have an identifiable owner/operator, but do not include sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials, nor sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim.

"Storm Water Pollution Prevention Plan (SWPPP)" means a document developed to help identify sources of pollution potentially affecting the quality of storm water discharges associated with a facility or activity, and to ensure implementation of measures to minimize and control pollutants in storm water discharges associated with a facility or activity. The Department determines specific requirements and information to be included in a SWPPP based on the type and characteristics of a facility or activity, and on the respective MPDES permit requirements.

"Surface waters" means any waters on the earth's surface, including but not limited to streams, lakes, ponds, and reservoirs; and irrigation and drainage systems. Water bodies used solely for treating, transporting, or impounding pollutants shall not be considered surface water.

"Time-weighted composite sample" means a composite sample consisting of a mixture of equal volume aliquots collected at a constant time interval.

"Total maximum daily load" or "TMDL" means the sum of the individual waste load allocations for point sources and load allocations for both nonpoint sources and natural background sources established at a level necessary to achieve compliance with applicable surface water quality standards (75-5-103, MCA).

“TSS” means the pollutant parameter total suspended solids.

“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 permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

"Waste load allocation" means the portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources.

"Waste pile" means any non-containerized accumulation of solid, nonflowing waste that is used for treatment or storage.

6 INDUSTRIES WITH FEDERAL EFFLUENT GUIDELINES FOR STORM WATER

Industries with Federal Effluent Limitations Guidelines for Storm Water This list is not exhaustive and does not determine eligibility. This list should be used as a reference to self-determine if primary industrial activities and/or specific areas, based on a facility’s SIC, are subject to federal effluent guidelines.	
Cement Manufacturing	40 CFR 411
Feedlots	40 CFR 412
Fertilizer Manufacturing	40 CFR 418
Petroleum Refining	40 CFR 419
Phosphate Manufacturing	40 CFR 422
Steam Electric	40 CFR 423
Coal Mining	40 CFR 434
Mineral Mining and Processing	40 CFR 436
Ore Mining and Dressing	40 CFR 440
Asphalt Emulsion	40 CFR 443 Subpart A

Attachment B.
Continental Mine Spill Plan
MDEQ Spill Management and Reporting Policy

APPENDIX OP-D

CONTINENTAL MINE SPILL PLAN

Table of Contents

FIGURES

TABLES

1.0 INTRODUCTION

The Spill Plan provides essential information and protocols to follow in the event of a hydrocarbon or chemical spill. Montana Resources, LLP (MR) has prepared this Spill Plan for hydrocarbons and hazardous materials to be implemented at the Continental Mine in Butte, Montana (Figure 1). The objectives of the Spill Plan are to: 1) prevent the discharge of hydrocarbons and other chemical products to the environment; 2) should a spill or release occur, avoid or minimize off-site environmental consequences; and 3) identify potential strategies for spill clean-up.

MR also has a Chemical/Materials Release Hazards Plan that is presented in the Emergency Operational Plan for the Continental Mine.

1.1 SITE DRAINAGE PATTERNS

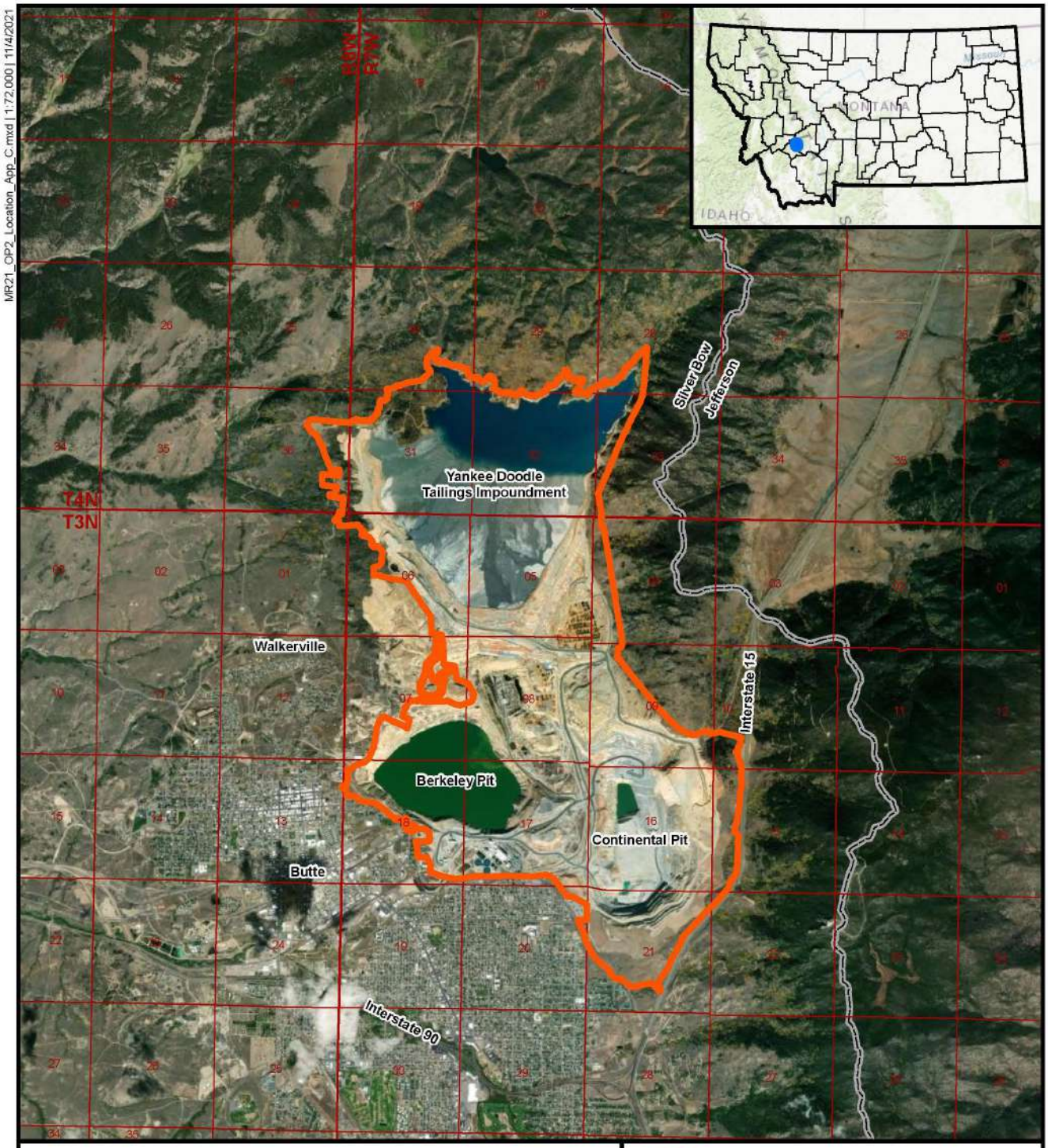
Drainages along the east side of the permit area (e.g., Woodville Gulch and Horse Canyon) drain westward into the Continental Pit, Yankee Doodle Tailings Impoundment (YDTI), or the Clearwater Ditch. The Clearwater Ditch begins on the west side of Interstate-15 and extends along the east and south sides of the permit area. It collects runoff from rock disposal sites along the east side of the permit area and the Hillcrest dump to the south, transporting it to a collection pond near the Butte Concentrator where it is used for make-up water needs.

The west side of the permit area is located near the drainage divide separating the mine area from Bull Run Creek and Oro Fino Gulch, where surface water flows west. Any ephemeral surface water that flows east from this divide into the mine area is captured by the West Embankment of the YDTI or enters the YDTI.

MR has been exempted from Storm Water Permit requirements but holds MPDES Major Industrial Permit #MT0000191. A renewal application was submitted and approved in 2017 and will be renewed in the future as appropriate. The Permit allows discharge to Silver Bow Creek via the Metro Storm Drain (now called Silver Bow Creek) (Appendix OP-A).

1.2 MATERIALS STORAGE AND HANDLING

Table 1 presents typical fuels, lubricants, and hazardous materials stored or used for the Continental Mine operations. Material storage varies from retail packaging and small drums present in shops, the Butte Concentrator, the Precipitation Plant, Buckley Powder, and the Continental Garage to bulk tanks located throughout the mine site. Fuel and hazardous material storage locations are shown on Figure 2. Storage quantities vary depending on usage, inventory, and restocking. Mobile equipment and service trucks also contain fluids necessary for operating.


MR21_OP2_Location_App_C.mxd | 1:72,000 | 11/4/2021
MONTANA
IDAHO
Yankee Doodle
Tailings Impoundment
Silver Bow
Jefferson
T4N
T3N
R10W
R9W
Walkerville
Interstate 15
Berkeley Pit
Continental Pit
Butte
Interstate 90
Legend
Permit Boundary
N
0 0.5 1 2
Miles
Montana Resources
Continental Mine
Location Map
WESTECH
ENVIRONMENTAL
Figure 1


YANKEE DOODLE TAILINGS IMPOUNDMENT (YDTI)
GARAGE FUEL BAY
UPPER FUEL BAY SITE
PERMIT BOUNDARY
PRECIPITATION PLANT
CONTINENTAL GARAGE
BERKELEY PIT
BUCKLEY POWDER BLASTING CO.
CONCENTRATOR FUEL BAY
CONTINENTAL PIT
CONCENTRATOR
CONTINENTAL FUEL BAY
Montana Resources
Continental Mine
Figure 2
Hydrocarbon and Hazardous Materials Storage Locations
MR21_OP2_HazMat.dwg
1"=3500'
11/04/21

Table 1
Typical Hydrocarbons and Hazardous Materials at the Continental Mine

Fluid Uses	Fluids
Fuels	Diesel
	Gasoline
Lubricants	Engine Oil
	Transmission/Drive Train Oil
	Hydraulic Oil
	Gear Oil
	Lubricating Grease
Coolants, Hydraulic Fluids, Other	Ethylene Glycol
	Propylene Glycol
	Power Steering Fluid
	Brake Fluid
	Propane
Mill Operation Reagents	Burnt Lime
	#2 Fuel Oil
	Sodium isopropyl Xanthate
	Orfom F-8 Frother
	Sodium Hydrosulfide
	Nitrogen
	MCO Flotation Oil
	Activated Carbon
	Nalco 9714
	Nalco Optimer 83949
	Lime
	Methyl Isobutyl Carbinol
	Sodium Silicate
	Alcohol
	Diesel
Leaching Operation	Sulfuric Acid
	Scrap Iron

1.3 TYPES OF SPILLS AND RELEASES

The most common incidents that could occur on operational sites involve hydrocarbons, particularly diesel, gasoline, oil, and other lubricants. Other hazardous materials are present in the mill and leaching operations, as indicated in Table 1.

The following general types of spills/releases include:

1. Contained spill:
   - Occurs inside containment or bermed area (no material has escaped).
   - Spilled substance can be identified and there is no risk of fire or explosion.
2. Controlled spill:
   - Occurs outside a contained area; however, spill is too small to rapidly migrate above or below ground away from the immediate vicinity.
   - Spilled substance can be identified and there is no risk of fire or explosion.

3. Uncontrolled spill:
    - Occurs outside a contained area and surface (or underground) contaminant flow moves an unknown distance away from the spill site.
    - Spill has the potential to spread off-site.
    - Spilled substance cannot be identified or there is a risk of fire or explosion.

Uncontrolled spills are not reasonably expected to occur at the mine since MR operates a closed water system and all flows are captured and report to the Butte Concentrator, YDTI, the Berkeley Pit, or the Continental Pit.

1.4 PLAN IMPLEMENTATION

MR is responsible for ensuring that its employees and contractors comply with this Spill Plan. The Environmental Manager will have direct responsibility to provide information from the Spill Plan to employees and contractors, to ensure measures identified in the plan are implemented, and to complete and file any necessary reports.

Contractor supervisory personnel will be responsible for ensuring their employees comply with this plan.

MR will supply necessary manpower, spill response equipment and relevant personal protection equipment (PPE) to address any spills, or contract with a qualified spill response company.

The Environmental Manager contact information is:

Name: Mark Thompson
Address: 600 Shields Ave, Butte, MT 59701
Phone: (406) 723-4081
E-mail: mthompson@montanaresources.com

2.0 SPILL PREVENTION MEASURES

MR will implement practicable measures to minimize the potential for, and the off-site environmental consequences of, a spill during operation of the mine.

Typical Storage:

- Fuels will be stored in steel tanks set in containment or dual-wall, fire-resistant tanks.
- Fuels and lubricants will be stored in designated areas and service vehicles.
- Storage containers will display labels that identify the contents of the container and specific hazards (flammable, toxic, etc.) that are affixed to the containers and readily visible. Safety Data Sheets (SDS) will be present on site.
- Hazardous materials will be stored in their original container unless the container is not resealable, in which case original labels and SDS will be maintained on site.
- Container storage areas will be routinely inspected for integrity purposes.

- Leaking and/or deteriorated containers will be replaced if detected and appropriate clean-up measures will be promptly implemented if necessary.
- No incompatible materials will be stored in the same containment area.

Secondary Containment (where containment vaults or dual-wall tanks are not used):

- Containment areas will be capable of containing 110% of the volume of hazardous materials being stored.
- Secondary containment structures will be constructed and maintained so that no outlet is provided (any drain valves will be kept in the closed position except when in use) and any spill will be contained within the containment structure.
- Temporary containment devices (such as tubs, lined pits, etc.) will be used for temporary storage areas.

Fuel Transfer/Unloading/Loading areas:

- Re-fueling and transferring of any liquids will be continuously monitored to minimize the potential for overfilling, leaks or spills.
- Service vehicles used to transport fuel will be equipped with an appropriate number of fire extinguishers and a hydrocarbon spill response kit.
- Fuel nozzles will be equipped with functional automatic shut-off valves.
- Drivers of tank trucks will be responsible for spill prevention during tank truck unloading. Procedures for loading and unloading tank trucks will meet the minimum requirements established by the Department of Transportation. Drivers will observe and control the fueling operations at all times to prevent overfilling.
- Prior to departure of a tank truck, outlets of the vehicle will be examined by the driver for leakage and tightened, adjusted, or replaced as required to prevent liquid leakage while in transit.

Hazardous Materials Transport:

- Hazardous materials will be transported in accordance with MR's Hazardous Materials Transportation Security Plan.

3.0 SPILL RESPONSE MEASURES

The response action priorities upon discovery of a spill or release are to protect the safety of personnel and the public, and minimize off-site environmental impacts. Key actions immediately following discovery of a spill are:

- Assess the safety of the situation, both in the immediate vicinity and for the surrounding public.
- Remove sources of ignition if it is safe to do so.
- Shut off the source of the spill if it is safe to do so.

Leaks, spills, or releases that occur outside containment areas (controlled and uncontrolled spills) should be reported to MR's Environmental Manager immediately; a spill report should be completed for all spills and submitted to the Environmental Manager.

The Environmental Manager contact information is:

Name: Mark Thompson
Address: 600 Shields Ave, Butte, MT 59701
Phone: (406) 723-4081
E-mail: mthompson@montanaresources.com

Spill reporting forms can be found at MR's Administrative Offices, located at 600 Shields Ave, Butte, MT.

The Environmental Manager or a designee should implement applicable spill control measures from the list below.

Implement the following response actions for spills:

- Construct berms using available equipment and/or deploy barrier materials to contain the spill if free flowing liquid is still present at the surface.
- Apply sorbent materials to the spill area if free flowing liquid is still present at the surface.
- Minimize traffic on contaminated soils.
- Excavate trenches if necessary to create collection sumps to prevent liquids migrating underground from leaving the mine site.
- If a spill occurs into a ditch or standing or flowing water, notify proper authorities if spill could leave MR's permit area.
- If in water, following consideration of access and safety characteristics of the water body and the likelihood of off-site environmental impacts, deploy booms, curtains, and sorbents as appropriate to minimize the spread of the spill.
- Secure the services of an Emergency Response Contractor (see Section 4.2) if required to assist with containment and cleanup of the spill.

General steps to follow in managing a spill or release include:

- Determine the location/source of leaks.
- Identify the leaking material.
- Assess personnel protective equipment (PPE) requirements.
- Consider and evaluate access and safety characteristics of the spill location.
- Stop the leak.
- Manage agency notifications.
- Isolate and contain the spilled material.
- Clean up spill and dispose of material.
- Investigate the cause of the spill.

4.0 SPILL CLEANUP MEASURES

4.1 GENERAL CLEANUP MEASURES

Small spills and leaks will be remediated as soon as possible by mine company personnel or contractor personnel designated with responsibility for the immediate area or activity related to the spill. Larger or more complex spills may be cleaned up by mine company personnel and/or by an Emergency Response Contractor. Cleanup procedures may vary, depending on size and type of spill, location, and site conditions.

Small spills will be cleaned up using sorbent materials and hand tools to remove contaminated soils. Larger spills would use mine equipment such as loaders, backhoes and trucks as necessary and appropriate.

Contaminated materials (adsorbent pads, clay, etc.) and any impacted soil would be placed in appropriate storage containers such as plastic bags or appropriately-sized containers. For larger quantities of affected soils, temporary plastic-lined storage areas would be constructed and MR would investigate the viability of on-site landfarming within the mine permit area.

4.2 CLEANUP CONTRACTORS

Spills too large for cleanup by MR employees could be handled by a contractor specializing in spill cleanup. Montana spill cleanup contractors include:

Olympus Technical Services, Inc.
765 Colleen St.
Helena, MT 59601
Telephone: (406) 443-3087
Fax: (406) 443-0232

West Central Environmental Consultants (WCEC)
1030 South Ave. West
Missoula, MT 59801
Telephone: (406) 549-8487 or (800) 422-8356
Fax: (406) 549-8490

Environmental Restoration LLC
32000 US Highway 2
Libby, MT 59923
Telephone: (406) 293-2082 or (888) 814-7477
Fax: (406) 293-2674

4.3 DISPOSAL

Used lubricating oil, hydraulic fluid, antifreeze, and other similar products should be placed in tanks labeled for their specific fluid. A contract service specializing in handling and recycling, or other licensed

means of disposal of these types of products, should periodically pick up these fluids and transport them to their recycling facility.

Options available for management of hydrocarbon impacted media are:

1. place contaminated material in the Continental Mine's solid waste disposal site;
2. haul contaminated material to an existing licensed soil treatment facility;
3. dispose of contaminated material in a licensed Class II landfill or equivalent;
4. utilize landfarm management techniques (if material has potential post-treatment beneficial use) either in-situ, on the generator's property, or on property contracted through another owner; or
5. Based on consideration of the circumstances, use of an option that is consistent with the objective of long term containment.

Following consideration of the objectives of this Spill Plan and the circumstances and facts related to the spill and, including without limitation, the nature and size of spill, the impacted material, and the location of spill, MR will select one of the above options.

If landfarmed on site, MR would consult with DEQ and follow procedures established by DEQ's Waste Management and Remediation Division, Solid Waste Sections (Guidelines for Licensing One-Time Landfarms for the Remediation of Hydrocarbon Contaminated Soil, Revised March 2016), and identify the location on a map. Locations for landfarming would be identified in consultation with DEQ and could include a portion of the existing Solid Waste Disposal Site identified in Section 11.0 of the Operations Plan, leach pad areas, or other sites amenable to landfarming operations.

5.0 SPILL NOTIFICATIONS AND REPORTING

The following types of spills or unauthorized releases must be reported to the Department of Environmental Quality/Disaster and Emergency Services (DEQ/DES):

- Releases or spills of hazardous substances in amounts that meet or exceed the reportable quantities in 40 CFR Part 302. Notification to DES and the National Response Center (NRC) is required.
- Spills, overfills, and suspected releases from underground storage tanks and petroleum storage tanks. *ARM 17.56.501, et seq.*
- Releases or spills of any materials that would lower the quality of groundwater below water quality standards. *ARM 17.30.1045.*

The following types of spills should be reported to DEQ/DES:

- Spills that enter or may enter state water or a drainage that leads directly to surface water.
- Spills that cause a film, "sheen", or change the color of the water, streambanks or shorelines of state waters.

- Spills of 25 gallons or more of any petroleum product such as gasoline or diesel fuel that threatens state surface or groundwater.

Spills should be reported using DEQs "Standardized Cleanup Report for Spills or Releases that Impact Soil" (http://deq.mt.gov/enf/spill.mcpx).

The following agencies should be notified of reportable spills:

Montana DEQ: 406-841-5000 or 800-457-0568 (24 hours).

Montana Disaster and Emergency Services (DES): (406) 324-4777 (24 hours).

National Response Center (NRC): (800) 424-8802 (24 hours).

Butte-Silver Bow County DES Director: Dan Dennehy, Butte Justice Center, 3615 Wynne Ave, Butte, MT 59701; (406) 497-6295; ddennehy@bsb.mt.gov

SPILL MANAGEMENT AND REPORTING POLICY

I. CONTAINMENT AND CLEANUP

All releases or spills of hazardous or deleterious substances or other wastes, regardless of size, must be properly and expeditiously managed, contained, and removed to protect public health and the environment. This policy is written to provide guidance on when and how to report spills. This policy is intended to assist in the implementation of the following Montana laws and the administrative rules adopted thereunder: Comprehensive Environmental Cleanup and Responsibility Act (§75-10-701, *et seq.*, MCA); Hazardous Waste Act (§75-10-401, *et seq*., MCA); Solid Waste Management Act (§75-10-201, *et seq*., MCA); Underground Storage Tank Act (§75-11-501, *et seq.*, MCA); and the Water Quality Act (§75-5-101, *et seq*., MCA).

II. NOTIFICATION REQUIREMENTS

Petroleum releases from regulated aboveground storage tanks (AST), underground storage tanks (UST) or petroleum storage tanks (PST) must be reported to DEQ within 24 hours of being detected as required by ARM 17.56, Subchapter 5. DEQ must be notified of releases of greater than 25 gallons of petroleum from an AST, UST or PST. Petroleum releases less than 25 gallons in volume must be contained and cleaned up within 24 hours. If cleanup cannot be completed within 24 hours, owners and operators must report the release to DEQ. DEQ maintains a leak line for reporting releases from an AST, UST or PST at 800-457-0568. Outside normal business hours, releases must be reported to the DES Duty Officer 24-hour phone number at (406) 324-4777. Releases must be reported to a live person - voice mails are not adequate notification.

All other releases and spills should be reported immediately to the state's Disaster and Emergency Services (DES) Duty Officer 24-hour phone number: (406) 324-4777. In addition to the following reporting requirements, notification(s) may be required by permits issued by state, federal or local government agencies. **Notification to the National Response Center (NRC) may also be required. NRC can be reached at 800-424-8802. DES or DEQ are not responsible for notifying the NRC.**

A. The following types of spills **must** be reported:

- Releases or spills of hazardous substances in amounts that meet or exceed the reportable quantities in *40 CFR Part 302*.
- Spills, overfills, and suspected releases from underground storage tanks and petroleum storage tanks. *ARM 17.56.501, et seq.*
- Releases or spills of any materials that would lower the quality of groundwater below water quality standards. *ARM 17.30.1045*.

B. The following types of spills **should** be reported:

- Spills that enter or may enter state water or a drainage that leads directly to surface water;
- Spills that cause sludge or emulsion beneath the surface of the water, stream banks or shorelines;
- Spills that cause a film, "sheen," or change the color of the water, stream banks or shorelines; or
- Spills of twenty-five (25) gallons or more of any petroleum product such as: crude oil, gasoline, diesel fuel, aviation fuel, asphalt, road oil, kerosene, fuel oil; produced water, injection water, salt water or combination thereof; and derivatives of mineral, animal, or vegetable oils.

For additional information:
Montana Department of Environmental Quality
Enforcement Program
Phone (406) 444-0379

Rev: November 2017

Attachment C.

Montana Resources LLC Stormwater Site Inspection Form

Montana Resources Storm Water Site Inspection Report

Project Name: Montana Resources

Permit #:MTR0761

Date and Time of Inspection:
Inspector's Name(s):
Inspector's Title(s):
Inspector's Contact Information:

Other SWPPP Team Members Present (Name/Title):
Weather at the time of the inspection?
❑ Clear ❑Cloudy ❑ Rain ❑ Sleet ❑ Fog ❑ Snowing ❑ High Winds ❑ Other: _____Temperature: _____

Quantity of Precipitation at Airport: ____0_____inches in ___24_____hours
Daily Summaries Station Details: BUTTE BERT MOONEY AIRPORT, MT US, GHCND:USW00024135 | Climate Data Online (CDO) | National Climatic Data Center (NCDC) (noaa.gov)

COMMENTS:

_____

_____

Type of Inspection (MARK ONLY ONE):

❑ *Routine Facility Inspection* (Part 2.6.2/3.1.10) Inspections must be conducted **monthly**. At least one routine site inspection must occur when a storm water discharge is occurring or if no storm water discharge occurs then the inspection must be during wet weather conditions (rainfall or snowmelt).

❑ *Significant Storm Event* (Part 2.6.2/3.1.10) This inspection must be conducted **within 72 hours of the end of a rainfall or snowmelt event**. A "significant rainfall event" is a rainfall event over any 24-hour period that results in 0.5 inches or more of measured or documented rainfall. A "significant snowmelt event" is thawing conditions above freezing which produce a storm water discharge and where visible and discernible erosion of sediment is occurring at the site.

These items need to be inspected during a *Significant Storm Event*.

1) Drainage Flow Pattern
   Inspect drainage flow pattern on Figure 3 of SWPPP. Has anything changed? Yes/No
   If yes, describe changes_____
2) Sediment
   Is there any visible sediment in the storm water? Yes/No
   If yes, please describe where the sediment is coming from and where it is deposited. _____
3) Material Exposure
   Is there any material outside that was exposed to precipitation? _____

SWPPP Revisions: Document revisions to the SWPPP resulting from this inspection:

_____

SWPPP MAP Revisions: Document revisions to the SWPPP maps resulting from this inspection (initial and date).

Spills and Leaks: Describe the current condition of the maintenance/vehicle storage area and any maintenance that may be required.

_____

*Inspect all **activity areas** and **areas with potential pollutants** at your site. Provide a description of any discharges occurring.*

Activity Area/ Potential Pollutant Source	Are there any **discharges** at the time of the inspection? ***(physical evidence***)	Are there any **previously unidentified discharges** of pollutants? ***(physical evidence)***	Is there **evidence* of obvious storm water pollution**?	Corrective Action Needed
Continental Pit Mine				
Mill and Concentrator Facility				
Ecology Pond				
Dredge Pond				
YDTI				
Horseshoe Bend Area				
Haul Roads				
Fueling Station				
Maintenance Shop/Office and Equip. Storage				
Other				

evidence* = color, odor, clarity, floating solids, settled solids, suspended solids, foam, and/or oil sheen

*Inspect all **control measures** at your site. Provide a description of any discharges occurring.*

Outfalls & BMPs	Is there evidence of **pollutants discharging at outfalls**? ***(physical evidence***)	Are there any **previously unidentified discharges** of pollutants? ***(physical evidence)***	Is there **evidence* of obvious storm water pollution**?	BMP Replacement, Maintenance, or Repair Needed?
Outfall 001				

evidence* = color, odor, clarity, floating solids, settled solids, suspended solids, foam, and/or oil sheen

Additional Control Measures: Describe any additional control measures needed to address any conditions requiring corrective action.

Non-Compliance: Describe any incidents of non-compliance not described above.

CERTIFICATION STATEMENT

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

Print name and title: _____

Signature: _____

Attachment D.

Stormwater Annual Compliance Evaluation Report Form

Agency Use
Permit No.:
Date Rec'd Amount Rec'd Check No. Rec'd By

DEQ Montana Department of Environmental Quality

WATER PROTECTION BUREAU

FORM
AR-SWI

Annual Report Form
Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity (MSGP)
MTR000000

An Annual Report Form must be completed and submitted to the Department for each calendar year of active coverage under this permit. This Annual Report must be completed using this standard form. The Annual Report for a given calendar year must be submitted by February 1 of the year following that respective calendar year. The permittee is waived from Annual Report requirements for a given calendar year if authorization to discharge was obtained less than three months before the end of that respective calendar year. The Annual Report must be certified and signed in accordance with Part 4.18 of the MSGP.

Section A - Facility or Operation Information

Permit Authorization Number: MTR00 __ __ __ __

Facility or Operation Name _____

Physical Location, Mailing address, or directions to location

_____

Nearest City or Town _____ **Zip Code**_____**County**_____

Latitude _____ **Longitude** _____

Township/Range /Section (optional)_____

Facility or Operation Contact Person/Position

Name and Title, or Position Title_____

Company Name (if different than the facility or operation _____

Mailing Address _____

City, State, and Zip Code _____

Phone Number (____) _____ **E-mail** _____

SWPPP Administrator ☒ **Same as facility contact**

Name and Title _____

Company Name (if different than the applicant) _____

Mailing Address _____

City, State, and Zip Code _____

Phone Number (____) _____ **E-mail** _____

Section B – Summary of Findings

Provide a summary of the past year's routine facility inspections documentation.

Provide a summary of the past year's significant storm event inspection documentation.

Provide a summary of the past year's corrective actions performed - be sure to provide a tracking or follow-up process for any currently ongoing and unresolved actions.

Provide a summary of any incidents of noncompliance observed – be sure to provide a tracking or follow-up process for any currently ongoing and unresolved incidents. Enter "NA" if not applicable.

Provide a summary of the past year's benchmark monitoring results (if applicable). Enter "NA" if not applicable.

Provide a summary of the past year's required revisions to the SWPPP. If the SWPPP is maintained on an internet page, provide the web address URL: _____.

Section C - Certification

I certify that the facility or operation identified in Section A of this AR-SWI form:

- Modifies and updates the SWPPP as required by Part 3.2;
- Maintains a complete copy of the current SWPPP at the facility in an accessible format; and
- Confirms that the current SWPPP or certain information from the current SWPPP must also be made available to the public upon request.

Authorized Signatories: This form must be completed, signed, and certified as follows:

- For a corporation, by a principal officer of at least the level of vice president;
- For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
- For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking elected official.

All Applicants Must Complete the Following Certification:

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

Name (Type or Print)	
Title (Type or Print)	**Phone Number**
Signature	**Date Signed**

Attachment E.
SWPPP Modification Form

SWPPP Modification Form

No.	Description of the SWPPP Revision or Update	Time and Date of Revision or Update	Amendment Prepared by: [Name(s) and Title]
1			
2			
3			
4			
5			
6			
7			
8			

Attachment F.

Clean Water Act Information Center – Silver Bow Creek

Montana DEQ - Water Quality Standards Attainment Record

Reporting Cycle: 2020 **Assessment Record:** MT76G003_020.pdf **Status:** Unassigned

ASSESSMENT UNIT INFORMATION

Reporting Cycle:	2020
Assessment Unit:	MT76G003_020
Waterbody Name:	Silver Bow Creek
Location Description:	SILVER BOW CREEK, Blacktail Creek to Warm Springs Creek (Clark Fork River)

Water Type:	Size (Miles/Acres)	Use Class:
RIVER	29.18 MILES	I

Hydrologic Unit Code:	17010201
HUC Name:	Upper Clark Fork
Watershed:	Pend Oreille
Basin:	Columbia
TMDL Planning Area:	Upper Clark Fork
Ecoregion:	Middle Rockies
County:	Deer Lodge County, Silver Bow County
Lat/Long AU Start (U/S):	45.99552 / -112.5379
Lat/Long AU End (D/S):	46.18688 / -112.7718

MONITORING INFORMATION

Date Assessment Started:	11/04/2013
Assessed By:	Nixon, Alan

CITATIONS

Citation	Location	Biological Data	Habitat Data	Chemistry Data
Environmental Science and Engineering, Inc. (1995), Anaconda Regional Water and Waste Operable Unit Final Draft Remedial Investigation Report: Section 3	WQPB Ebrary		riparian &/or instream surveys & physical features	benthic sediment data; common ions, pH, conductivity, miscellaneous; metals; quantitative physical data
McGuire, Daniel L. (1995), Clark Fork River Macroinvertebrate Community Biointegrity: 1993 Assessment	WQPB Ebrary	algae; macroinvertebrates		
ENSR Consulting and Engineering (1996), Development of Site-Specific Water Quality Criteria for Copper in the Upper Clark Fork River: Phase III WER Program, Testing Results: Final Report, 0480-277.01.22	WQPB Ebrary	fish	riparian &/or instream surveys & physical features	common ions, pH, conductivity, miscellaneous; metals; toxicity tests
McGuire, Daniel L. (1997), Clark Fork River Macroinvertebrate Community Biointegrity: 1995 Assessment	WQPB Ebrary	macroinvertebrates		major nutrients; metals
CDM Federal Programs Corporation (1999), Remedial Planning Activities at Selected Uncontrolled Hazardous Substances Disposal Sites ...: Draft Warm Springs Creek Site Characterization Report, Anaconda Regional Water, Waste, & Soils Operable Unit Anaconda Smelter NPL Site, EPA Contract No. 68-W5-0022	WQPB Ebrary	other bacteriological data	photo points; riparian &/or instream surveys & physical features	Rosgen type; benthic sediment data; common ions, pH, conductivity, miscellaneous; quantitative physical data
ISSI Consulting Group (1999), Clark Fork River Ecological Risk Assessment: Ecological Risk Assessment: Clark Fork River Operable Unit: Milltown Sediments/Clark Fork River Superfund Site	WQPB Ebrary	fish	riparian &/or instream surveys & physical features	quantitative physical data
McGuire, Daniel L. (1999), Clark Fork River Macroinvertebrate Community Biointegrity: 1997 and 1998 Assessments	WQPB Ebrary	macroinvertebrates		

Citation	Location	Biological Data	Habitat Data	Chemistry Data
Natural Resource Damage Program (1999), Draft Upper Clark Fork River Basin Restoration Plan: Procedures and Criteria	WQPB Ebrary		Land use; riparian &/or instream surveys & physical features	General
Weber, Erich E. (1999), Clark Fork Basin Periphyton Monitoring: An Assessment of Biological Integrity and Impairment Based on Algae Associations During August of 1997 and 1998	WQPB Ebrary	algae; fish	riparian &/or instream surveys & physical features	benthic sediment data; major nutrients; quantitative physical data
U.S. Geological Survey (199n), USGS Water Data for the Nation - NWIS	Assessment Record	algae; chlorophyll; fecal coliforms; fish; other bacteriological data	Land use; riparian &/or instream surveys & physical features	benthic sediment data; bioaccumulation; common ions, pH, conductivity, miscellaneous; major nutrients; metals; organics; quantitative physical data
McGuire, Daniel L. (2000), Clark Fork River Macroinvertebrate Community Biointegrity: 1999 Assessments	WQPB Ebrary	macroinvertebrates		
Weber, Erich E. (2000), Clark Fork Basin Periphyton Monitoring: An Assessment of Biological Integrity and Impairment Based on Algae Associations During August of 1999	WQPB Ebrary	algae		
Montana Department of Environmental Quality, Planning, Prevention and Assistance Division, Water Quality Planning Bureau (2013), 2012 Field Season STORET Data Archive [Electronic Resource]	DEQ Metcalf Multimedia Case	algae; chlorophyll; e-coli; macroinvertebrates	riparian &/or instream surveys & physical features	benthic sediment data; common ions, pH, conductivity, miscellaneous; major nutrients; metals; quantitative physical data
Montana Department of Environmental Quality, Remediation Division (2013), Remediation Division:	DEQ Metcalf Multimedia Case			benthic sediment data; metals

Citation	Location	Biological Data	Habitat Data	Chemistry Data
Water Chemistry and Sediment Data for Silver Bow Creek [Electronic Resource]				
Suplee, Michael W. ; Watson, Vicki (2013), Scientific and Technical Basis of the Numeric Nutrient Criteria for Montana's Wadeable Streams and Rivers: Update 1, May 2013, WQPBWQSTR-002	WQPB Ebrary	chlorophyll		major nutrients
Suplee, Michael W. (2013), Technical Memorandum: Benchmark for Nitrate + Nitrite in Assessing Ambient Surface Water	WQPB Ebrary			major nutrients
Montana Department of Environmental Quality, Planning, Prevention and Assistance Division, Water Quality Planning Bureau (2014), Final - Silver Bow Creek and Clark Fork River Metals TMDLs, C01-TMDL-05aF	WEB			
Montana Department of Environmental Quality, Planning, Prevention and Assistance Division, Water Quality Planning Bureau (2014), Final - Upper Clark Fork Phase 2 Sediment and Nutrients TMDLs and Framework Water Quality Improvement Plan, C01-TMDL-04aF	WEB			

Comments:

Reporting Cycle: 2020 **Assessment Record:** MT76G003_020.pdf **Status:** Unassigned

DATA MATRIX
Biological Data

Comments: For the update to the 2014 303(d) List:
Chlorophyll-a: No chlorophyll-a data is available for this segment of Silver Bow Creek.

Macroinvertebrates: Eighty aquatic macroinvertebrate samples were collected between 2003 and 2012. All 80 datasets have HBI values greater than the threshold of 4. There are likely multiple stressors affecting the macroinvertebrate community besides the trophic conditions resulting from high nutrient loads. Metals concentration in the water column and substrate sediments may play a role in driving the HBI values up.

General Reach Characteristics

Data Type	Comments	Ref Num	Citation
algae	(DR8 Citation: McGuire, 1995. Clark Fork River Macroinvertebrate community Biointegrity: 1993) Studes on algae in 1986-1987 indicate that periphyton community is dominated by green algae, diatoms, and blue-green (Cyanophyta) and red algae (Rhodophyta). Cladophora was the most abundant of non-diatom algae.	706	McGuire, Daniel L. (1995), Clark Fork River Macroinvertebrate Community Biointegrity: 1993 Assessment
algae		688	Weber, Erich E. (1999), Clark Fork Basin Periphyton Monitoring: An Assessment of Biological Integrity and Impairment Based on Algae Associations During August of 1997 and 1998
algae	SBC above Butte WWTP- biological integraity was rated POOR, with severe impairment of aquatic life at SBC station 00 1997. In 1998, this site had been rerouted to more a natural stream, the biological integrity improved slightly to FAIR, with moderate impairment still indicated by a siltation index. STreambank revegetation may improve conditions from this point on. A major increase in polltuion index was seen in 1998. This improvement is directly attributable to the Superfund remedial efforts that are nearing completion along this reach of SBC. SBC below Colorado Tailings. Biolocial	689	Weber, Erich E. (2000), Clark Fork Basin Periphyton Monitoring: An Assessment of Biological Integrity and Impairment Based on Algae Associations During August of 1999

Data Type	Comments	Ref Num	Citation
	integrity was rated as poor, with severe overall impairment of aquatic life at station 01 in 1997, 1998. Moderate impairment was indicated during these years by the diversity index. The severe impairment is due to excessive biogenic waste loading from the Butte Metro WWTP, along with toxic metals and seidments in the floodplain. Pollution index over 1989-1990 are very low, and 1998 values are the lowest for this period, indicating that conditions have not improved in SBC below the Colorado Tailings. SBC below Warm Springs Ponds. Biological integrity was rated as FAIR 1997. Moderate impairment of aquatic life indicated due to a low pollution index value and elevated siltation index level. 1998 biological integrity was rated as GOOD. Pollution index values for 1989-1998 indicate a general increase. The Warm Springs Ponds are serving to remove dissolved and seiment-born heavy metals from Upper SBC. Higher flows have occurred in summer months during this time, which has reduced the pond's treatment efficiency, causing increased sediments and heavy metals or possibly further downstream.		
fish	As a tributary of the CF River, available historic data on fisheries of CF river is pertinent here. Between 1972-1975, a new waste water treatment system at Butte became operational, reducing metal loads inito Silver Bow Ck, and Warm Springs Ponds. The result was improved water quality, this allowed the establishment of brown trout in the Upper CF, alothough fish kills continued to be observed through 1980-1990's.	704	ISSI Consulting Group (1999), Clark Fork River Ecological Risk Assessment: Ecological Risk Assessment: Clark Fork River Operable Unit: Milltown Sediments/Clark Fork River Superfund Site
macroinvertebrates	(DR8 Citation: McGuire, 1995. Clark Fork River Macroinvertebrate community Biointegrity: 1993) Monitoring form 1986-1991 indicates that the Warm Springs Ponds greatly reduced the severity of metals pollution in SBC. Biotic condition was significantly improved relative to the upstream	706	McGuire, Daniel L. (1995), Clark Fork River Macroinvertebrate Community Biointegrity: 1993 Assessment

Data Type	Comments	Ref Num	Citation
	stations. However, impacts from both organic and metals pollution were evident, and biological integrity remained severely impaired.		
macroinvertebrates	This data provides ample data on SBC macros, and historically macros have been absent from or present at very low densities in SBC. Slight Increases in macro abundance at these sites can be considered an indication of reduced toxicity SBC supported simple benthic communities characterized by low density, diversity and taxa richness. Still, most areas studied on SBC are still severely impaired for metals. Pollution tolerant Chironomidae dominated. Mayflies, caddisflies, and stoneflies were essentially absent from SBC. Silver Box Creek above the WArm Springs Ponds was severely impaired for biointegrity. SBC biointegrity was moderately impaired below Warm Springs Ponds. Nutrient/organic pollution appeared to be the primary cause of reduced biological integrity during 1995 below the Warm Springs Ponds. Moderate nutrient impairment was detected at a lower site below the Warm Springs Ponds.	710	McGuire, Daniel L. (1997), Clark Fork River Macroinvertebrate Community Biointegrity: 1995 Assessment
macroinvertebrates		714	McGuire, Daniel L. (1999), Clark Fork River Macroinvertebrate Community Biointegrity: 1997 and 1998 Assessments
macroinvertebrates	Macro assemblages in SBC above Warm Springs Ponds were dominated by pollution tolerant Chirononomidae and were characterized by low diversity and taxa richness. Mayflies, stoneflies, and caddisflies have become more abundant in SBC above the Butte WWTP since 1996. Mayflies and stoneflies were absent from the other two sites in upper SBC. Of all the CF Tribs, SBC above WArm Springs Ponds rated as teh most severely impaired for metals pollution. Moderate iimpairment due to nutrient/organic pollution was indicated at	715	McGuire, Daniel L. (2000), Clark Fork River Macroinvertebrate Community Biointegrity: 1999 Assessments

Data Type	Comments	Ref Num	Citation
	two site in SBC. Of these sites, SBC below Warm Springs Ponds had the lowest score for this metric subset.		
other bacteriological data		2144	CDM Federal Programs Corporation (1999), Remedial Planning Activities at Selected Uncontrolled Hazardous Substances Disposal Sites ...: Draft Warm Springs Creek Site Characterization Report, Anaconda Regional Water, Waste, & Soils Operable Unit Anaconda Smelter NPL Site, EPA Contract No. 68-W5-0022

Reporting Cycle: 2020 **Assessment Record:** MT76G003_020.pdf **Status:** Unassigned

DATA MATRIX

Habitat Data

Comments:

General Reach Characteristics

Data Type	Comments	Ref Num	Citation
photo points	photos in studies of Warm Spgs and Silver Bow	2144	CDM Federal Programs Corporation (1999), Remedial Planning Activities at Selected Uncontrolled Hazardous Substances Disposal Sites ...: Draft Warm Springs Creek Site Characterization Report, Anaconda Regional Water, Waste, & Soils Operable Unit Anaconda Smelter NPL Site, EPA Contract No. 68-W5-0022
photo points	photos in studies of Warm Spgs and Silver Bow	704	ISSI Consulting Group (1999), Clark Fork River Ecological Risk Assessment: Ecological Risk Assessment: Clark Fork River Operable Unit: Milltown Sediments/Clark Fork River Superfund Site
riparian &/or instream surveys & physical features		199	Environmental Science and Engineering, Inc. (1995), Anaconda Regional Water and Waste Operable Unit Final Draft Remedial Investigation Report: Section 3
riparian &/or instream surveys & physical features	Data moved to "Metals" and "Toxicity".	3838	ENSR Consulting and Engineering (1996), Development of Site-Specific Water Quality Criteria for Copper in the Upper Clark Fork River: Phase III WER Program, Testing Results: Final Report, 0480-277.01.22
riparian &/or instream surveys & physical features	Data shows creek as a C3 stream. In 1994 Silver Bow contributed 1,400 tons of sediment to the CF River. Heavy metals and sediments flowed from Silver Box 1994-2000 to the CF River.	2144	CDM Federal Programs Corporation (1999), Remedial Planning Activities at Selected Uncontrolled Hazardous Substances Disposal Sites ...: Draft Warm Springs Creek Site Characterization Report, Anaconda Regional

Data Type	Comments	Ref Num	Citation
			Water, Waste, & Soils Operable Unit Anaconda Smelter NPL Site, EPA Contract No. 68-W5-0022
riparian &/or instream surveys & physical features	Riparian community similar to Warm Springs Creek, or balck cottonwood/Red-osier dogwood was dominant community type. Second was widely spaced Black cottonwood, grasses and forbs. Kentucky bluegrass (Poa pratensis) or dandelion sp.	704	ISSI Consulting Group (1999), Clark Fork River Ecological Risk Assessment: Ecological Risk Assessment: Clark Fork River Operable Unit: Milltown Sediments/Clark Fork River Superfund Site
riparian &/or instream surveys & physical features	Data moved to "Fisheries".	704	ISSI Consulting Group (1999), Clark Fork River Ecological Risk Assessment: Ecological Risk Assessment: Clark Fork River Operable Unit: Milltown Sediments/Clark Fork River Superfund Site
riparian &/or instream surveys & physical features	Mining Zone around Silver Bow- Mining, milling and smelter waste contain metlas and metalloids of pot. Human health concern were released into the environment from various sources around this site. Mining and smelting operations inlude tailings and other solid wastes that were discharged directly into local surface waters that ultimately drain into the CF River. Mining -related releases inc. discharge of cont. mine water or process water and fallout of airborne stack emission from the smelters. Warm Springs Ponds, constructed near the end of Silver Bow Ck, serve as a Hazardous Waste Treatment and Containment Facility that helps trap tailings and other mine wastes discharged from the operations in Butte, also act as a continued source of contamination to Silver Bow and CF River.	704	ISSI Consulting Group (1999), Clark Fork River Ecological Risk Assessment: Ecological Risk Assessment: Clark Fork River Operable Unit: Milltown Sediments/Clark Fork River Superfund Site
riparian &/or instream surveys & physical features	Silver Bow aquatic and riparian assessment DNRC. Aquatic and riparian resources have been injured by hazardous substances including arsensic, cadmium, copper, lead, zinc	3830	Natural Resource Damage Program (1999), Draft Upper Clark Fork River Basin Restoration Plan: Procedures and Criteria

Data Type	Comments	Ref Num	Citation
	release by mining operations in the Butte area. Resulting injuries include: 1. Surface water contains concentrations of hazardous substances that exceed water quality standsards established for the protection of aquatic life and thresholds demonstrated to cause injury in fish. 2. Streambed sediments contain significantly higher conc. of hazardous substances than woudl exist under baseline conditions. 3. Number of benthic macroinvertebrates is significantly reduced relative to baseline conditions. 4. Fish have been eliminated from the creek.		
riparian &/or instream surveys & physical features	5. 748 acres of SBC floodplain contain phytotoxic conc. Of hazardous substances resulting in close to no vegetation in this area. 6. 1,266 acres of SBC flookplain contain tailings and cont. soils that are a source of hazardous substances to SBC aquatic resources. 7. Populations of otter, mink, that rely on fish or benthic macros in their diets have been close to eliminated from the SBC ecosystem. 8. Birds, mammals and other wildlife which would normally be abundant in this area have been reduced due to habitat loss.	3830	Natural Resource Damage Program (1999), Draft Upper Clark Fork River Basin Restoration Plan: Procedures and Criteria

Reporting Cycle: 2020 **Assessment Record:** MT76G003_020.pdf **Status:** Unassigned

DATA MATRIX

Chemistry Data

Comments:

Water Chemistry Nutrients: From 2002 to 2012, 58, 172, and 145 nutrient samples respectively were collected and analyzed for TN, TP and NO2\NO3. The sampling results were compared to suggested nutrient criteria for wadeable streams the Middle Rockies Ecoregion: TN criteria = 0.300 mg/L; TP criteria = 0.030 mg/L; NO2+3 criteria = 0.10 mg/L. All TN, TP and NO2+3 data exceed their respective criteria. There are no non-detects in any of the data. The 58 TN data points have a mean of 2.58 mg/L, 8.6 times the criterion of 0.300 mg/L. The 172 TP data points have a mean of 0.313 mg/L, over 10 times the criterion of 0.03 mg/L. The NO2+3 data have a mean of 2.01 mg/L, 20 times the criterion of 0.10 mg/L. None of the data from the mixing zone of the WWTP discharge point were used in the analysis. TN and TP will be new listings of impairment to Aquatic Life uses and Primary Contact Recreation uses for the 2014- 303(d) List cycle. Nitrates will remain listed as an impairment affecting Aquatic Life uses, and it will be added as a cause of impairment to Primary Contact Recreation uses.
Silver Bow Creek has a State Classification of "I" (Impaired). The assessment criteria used for nutrient assessment are those for all waters in western Montana that include Aquatic Life uses and Primary Contact Recreation uses. General Prohibitions 17.30.637(1)(e) apply, also.(GEN PROHIBITIONS: CONDITIONS PRODUCING UNDESIRABLE AQUATIC LIFE).

METALS: For the 2014 Integrated Report Cycle, water chemistry samples were analyzed for dissolved Al (n = 202), As (n=202), Cd (n=202), Cu(n=202), Fe(n=178), Pb(n=202), Se(n=8), Zn(n=202),Ag (n = 8) , Hg (n=14).
The results of the analyses are:
Aquatic Life uses: Delistings: Dissolved Aluminum, Arsenic, Iron, Manganese, Silver. New Listings: Cadmium (Chronic A/L std). Keep Listed: Copper, Lead, Zinc.
Human Health (Drinking Water uses): New Listings: Mercury*. Delistings: Copper, Zinc, Silver, Aluminum, Iron, Manganese. Keep Listed: Arsenic, Lead.
Agricultural: Delistings: Arsenic, Lead, Copper, Zinc, Manganese, Iron.
Primary Contact Recreation: Delistings: Arsenic, Iron, Manganese, Silver, Copper, Lead

MT DEQ Remediation Division water chemistry data includes 14 Total Mercury data points collected from 14 sites in March, 2010: Eleven of those results are nondetects and three results exceed the Human Health surface water standard of 0.00005 mg/L: 0.00009, 0.00006, and 0.00028 mg/L. The Aquatic Life Acute and Chronic standards for mercury are not exceeded. *(see Citation # 14347 for the Hg data)

Entire Assessment Unit

Data Type	Comments	Ref Num	Citation
metals	MT DEQ Remediation Division water chemistry data includes 14 Total Mercury data points collected from 14 sites in March, 2010: Eleven of those results are nondetects and three results exceed the Human Health surface water standard of 0.00005 mg/L: 0.00009 , 0.00006 , and 0.00028 mg/L. The Aquatic Life Acute and Chronic standards for mercury are not exceeded. Mercury will be added to the list of metals impairing Drinking Water uses.	14347	Montana Department of Environmental Quality, Remediation Division (2013), Remediation Division: Water Chemistry and Sediment Data for Silver Bow Creek [Electronic Resource]

General Reach Characteristics

Data Type	Comments	Ref Num	Citation
benthic sediment data	Benthic sediments show severe impairments for heavy metals. See Metals.	3830	Natural Resource Damage Program (1999), Draft Upper Clark Fork River Basin Restoration Plan: Procedures and Criteria
common ions, pH, conductivity, miscellaneous		199	Environmental Science and Engineering, Inc. (1995), Anaconda Regional Water and Waste Operable Unit Final Draft Remedial Investigation Report: Section 3
common ions, pH, conductivity, miscellaneous		3838	ENSR Consulting and Engineering (1996), Development of Site-Specific Water Quality Criteria for Copper in the Upper Clark Fork River: Phase III WER Program, Testing Results: Final Report, 0480-277.01.22
common ions, pH, conductivity, miscellaneous		2144	CDM Federal Programs Corporation (1999), Remedial Planning Activities at Selected Uncontrolled Hazardous Substances Disposal Sites ...: Draft Warm Springs Creek Site Characterization Report, Anaconda Regional Water, Waste, & Soils Operable Unit Anaconda

Data Type	Comments	Ref Num	Citation
			Smelter NPL Site, EPA Contract No. 68-W5-0022
common ions, pH, conductivity, miscellaneous	(DR8 Citation: Weber, 1999. Clark Fork Basin Periphyton Monitoring: An Assessment of Biological Integrity and Impairment based on Algae Associations During Aug. 1997-1998.)	2772	U.S. Geological Survey (199n), USGS Water Data for the Nation - NWIS
common ions, pH, conductivity, miscellaneous	(DR8 Citation: USGS Monitoring of Silver Bow Creek. 1994-2000.) pH in the reach is impaired. Low levels are close levels which affect fishery. 6.09. Cond. shows impairment - rates ave. .394-.646. DO for some samples is lower than normal baseline levels. Range = 5.71 - 12.47mg/L. Temperatures range =3.88 - 17.66 C. Nitrate levels are higher than baseline for this area. Ranges 0.53-3.2 mg/L	2772	U.S. Geological Survey (199n), USGS Water Data for the Nation - NWIS
major nutrients	Water Chemistry Nutrients: From 2002 to 2012, 58, 172, and 145 nutrient samples respectively were collected and analyzed for TN, TP and NO2\NO3. The sampling results were compared to suggested nutrient criteria for wadeable streams the Middle Rockies Ecoregion: TN criteria = 0.300 mg/L; TP criteria = 0.030 mg/L; NO2+3 criteria = 0.10 mg/L. All TN, TP and NO2+3 data exceed their respective criteria. There are no non-detects in any of the data. The 58 TN data points have a mean of 2.58 mg/L, 8.6 times the criterion of 0.300 mg/L. The 172 TP data points have a mean of 0.313 mg/L, over 10 times the criterion of 0.03 mg/L. The NO2+3 data have a mean of 2.01 mg/L, 20 times the criterion of 0.10 mg/L. None of the data from the mixing zone of the WWTP discharge point were used in the analysis. TN and TP will be new listings of impairment to Aquatic Life uses and Primary Contact Recreation uses for the 2014- 303(d) List cycle. Nitrates will remain listed as an impairment affecting Aquatic Life uses,	14219	Montana Department of Environmental Quality, Planning, Prevention and Assistance Division, Water Quality Planning Bureau (2013), 2012 Field Season STORET Data Archive [Electronic Resource]

Data Type	Comments	Ref Num	Citation
	and it will be added as a cause of impairment to Primary Contact (Recreation) uses. Silver Bow Creek has a State Classification of "I" (Impaired). The assessment criteria used for nutrient assessment are those for all waters in western Montana that include Aquatic Life uses and Primary Contact Recreation uses. General Prohibitions 17.30.637(1)(e) apply, also.(GEN PROHIBITIONS: CONDITIONS PRODUCING UNDESIRABLE AQUATIC LIFE).		
metals	Metals concentrations in Silver Bos were somewhat elevated above USEPA national AWQC values. Samples measured were typicially higher during higher flow sampling times.	3838	ENSR Consulting and Engineering (1996), Development of Site-Specific Water Quality Criteria for Copper in the Upper Clark Fork River: Phase III WER Program, Testing Results: Final Report, 0480-277.01.22
metals	Dissolved metals in the CF are typically several-fold lower than the corresponding levels of total recoverable metals. For instance, this is the case with Paired measurements for dissolved and total recov. Of Cu measurements. As the total increases, the fraction that is dissolved decreases to a minimum of 10% or less. This occurs because the concentration of dissolved Cu does not increase as much as total when flow rate increases.	704	ISSI Consulting Group (1999), Clark Fork River Ecological Risk Assessment: Ecological Risk Assessment: Clark Fork River Operable Unit: Milltown Sediments/Clark Fork River Superfund Site
metals	(DR8 Citation: USGS Monitoring of Silver Bow Creek. 1994-2000.) Metals in 1994-2000 are extremely high. Arsenic, Aluminum, Cu, Fe, PB, Mn, Zn, and Ag. Stream is impaired due to flow of mine tailings and sediments laden with heavy metals.	2772	U.S. Geological Survey (199n), USGS Water Data for the Nation - NWIS
quantitative physical		2144	CDM Federal Programs Corporation (1999),

Data Type	Comments	Ref Num	Citation
data			Remedial Planning Activities at Selected Uncontrolled Hazardous Substances Disposal Sites ...: Draft Warm Springs Creek Site Characterization Report, Anaconda Regional Water, Waste, & Soils Operable Unit Anaconda Smelter NPL Site, EPA Contract No. 68-W5-0022
quantitative physical data		704	ISSI Consulting Group (1999), Clark Fork River Ecological Risk Assessment: Ecological Risk Assessment: Clark Fork River Operable Unit: Milltown Sediments/Clark Fork River Superfund Site
toxicity tests	Fish toxicity studies on study fish exposed to SBC waters were as follows: 1. Ceriodaphnia dubia- Control mortatlity after 24 hours was 70%, 85, 100 and 95%. Gnerally increased with increasing spike in copper concentrations. Site and lab water tests based upon EPA LD50 .	3838	ENSR Consulting and Engineering (1996), Development of Site-Specific Water Quality Criteria for Copper in the Upper Clark Fork River: Phase III WER Program, Testing Results: Final Report, 0480-277.01.22

Reporting Cycle: 2020 **Assessment Record:** MT76G003_020.pdf **Status:** Unassigned

DQA SUMMARY

Aquatic Life & Fishes

Nutrients	PASS
Metals	PASS
Sediment	NOT ASSESSED
Temperature	NOT ASSESSED
Other	NOT ASSESSED

Drinking Water

Metals	PASS
Other	NOT ASSESSED

Recreation

Nutrients	PASS
E.coli	NOT ASSESSED
Other	NOT ASSESSED

Agriculture

Common	NOT ASSESSED
Other	NOT ASSESSED

Reporting Cycle: 2020 **Assessment Record:** MT76G003_020.pdf **Status:** Unassigned

ASSESSMENT HISTORY

Cycle 2006

Not assessed this cycle

Cycle 2008

Not assessed this cycle

Cycle 2010

Not assessed this cycle

Cycle 2012

Not assessed this cycle

Cycle 2014

Nutrients: TN and TP are new listings of impairment to Aquatic Life uses and Primary Contact (Recreation) uses for the 2014- 303(d) List cycle. Nitrates will remain listed as an impairment to Aquatic Life uses, and it will be added as an impairment to Primary Contact (Recreation) uses.

Metals:
Aquatic Life uses: Delistings: Dissolved Aluminum, Arsenic, Iron, Manganese, Silver. New Listings: Cadmium (Chronic A/L std). Keep Listed: Copper, Lead, Zinc.
Human Health (Drinking Water uses): New Listings: Mercury. Delistings: Copper, Zinc, Silver, Aluminum, Iron, Manganese. Keep Listed: Arsenic, Lead.
Agricultural: Delistings: Arsenic, Lead, Copper, Zinc, Manganese, Iron, Silver.
Primary Contact (Recreation): Delistings: Arsenic, Iron, Manganese, Silver, Copper, Lead. New Listings: Total Nitrogen, Total Phosphorus, Nitrates.

Sedimentation/Siltation, and Habitat Alterations (Physical substrate habitat alterations) remain listed as impairing Aquatic Life uses.

Cycle 2016

TMDL for Nitrogen (Total) and Sediment approved on 04/29/2014. Nitrates addressed by TN TMDL approved on 4/29/2014. TMDL for Pb, Zn, Hg, Cu, Cd and As approved on 5/5/2014.

Cycle 2018

Not assessed this cycle

Reporting Cycle: 2020 **Assessment Record:** MT76G003_020.pdf **Status:** Unassigned

Cycle 2020

Not assessed this cycle

Reporting Cycle: 2020 **Assessment Record:** MT76G003_020.pdf **Status:** Unassigned

Overall Condition of Segment

Silver Bow Creek has a State Classification of "I" (Impaired).
Aquatic Life: Impairment by metals, resulting from a long history of mining operations, habitat alterations (Physical substrate habitat alterations), sedimentation/siltation. The stream is also impaired by conditions resulting from high nutrient concentrations.
Drinking Water uses: Impairment by metals.
Agriculture uses are fully supported.
Primary Contact Recreation: Impaired by conditions resulting from high nutrient concentrations.

Reporting Cycle: 2020 **Assessment Record:** MT76G003_020.pdf **Status:** Unassigned

USE SUPPORT DECISION

Use Class I

Trophic Status: **Trophic Trend:**

Uses	DQA	Method, Data, and Information Used	Assessment Type and Confidence	Use Support	Partial Flag	Use Support Certainty	Threatened
Aquatic Life	Pass			Not Fully Supporting	No	Medium	No
Agricultural				Fully Supporting	No	Medium	No
Drinking Water	Pass			Not Fully Supporting	No	Medium	No
Primary Contact Recreation	Pass			Not Fully Supporting	No	Medium	No

Method Number and Description

Reporting Cycle: 2020 **Assessment Record:** MT76G003_020.pdf **Status:** Unassigned

IMPAIRMENT INFORMATION

Uses	Cause (Confidence): Source(Confirmed)	Observed Effects
Aquatic Life	127 (High): 56 (N) 163 (Medium): 56 (N) 267 (Medium): 56 (N) 302 (High): 85 (Y), 122 (N) 344 (): 46 (N), 122 (N) 371 (): 122 (N), 143 (N) 423 (High): 56 (N) 458 (High): 85 (Y) 462 (High): 85 (Y)	
Agricultural		
Drinking Water	96 (High): 56 (N) 267 (High): 56 (N) 274 (High): 56 (N)	
Primary Contact Recreation	302 (): 85 () 458 (): 85 (N) 462 (): 85 (N)	

Cause Number and Description	Source Number and Description	Observed Effect Number and Description
96-Arsenic 127-Cadmium 163-Copper 267-Lead 274-Mercury 302-Nitrate 344-Physical substrate habitat alterations 371-Sedimentation/Siltation 423-Zinc 458-Nitrogen, Total 462-Phosphorus, Total	46-Grazing in Riparian or Shoreline Zones 56-Impacts from Abandoned Mine Lands (Inactive) 85-Municipal Point Source Discharges 122-Site Clearance (Land Development or Redevelopment) 143-Livestock (Grazing or Feeding Operations)	

Reporting Cycle: 2020 **Assessment Record:** MT76G003_020.pdf **Status:** Unassigned

DELISTING / STATUS CHANGES

Cause	Reason for Change	Date of Change
Aluminum	Applicable WQS attained, according to new assessment method	11/18/2013
Arsenic	TMDL Approved or established by EPA (4A)	05/05/2014
Cadmium	TMDL Approved or established by EPA (4A)	05/05/2014
Copper	TMDL Approved or established by EPA (4A)	05/05/2014
Iron	Applicable WQS attained, according to new assessment method	11/18/2013
Lead	TMDL Approved or established by EPA (4A)	05/05/2014
Manganese	Applicable WQS attained, according to new assessment method	11/18/2013
Mercury	TMDL Approved or established by EPA (4A)	05/05/2014
Nitrate	TMDL Approved or established by EPA (4A)	04/29/2014
Nitrogen, Total	TMDL Approved or established by EPA (4A)	04/29/2014
Phosphorus, Total	TMDL Approved or established by EPA (4A)	04/29/2014
Sedimentation/Siltation	TMDL Approved or established by EPA (4A)	04/29/2014
Silver	Applicable WQS attained, according to new assessment method	12/29/2013
Zinc	TMDL Approved or established by EPA (4A)	05/05/2014

Reporting Cycle: 2020 **Assessment Record:** MT76G003_020.pdf **Status:** Unassigned

CATEGORY INFORMATION

Previous Cycle

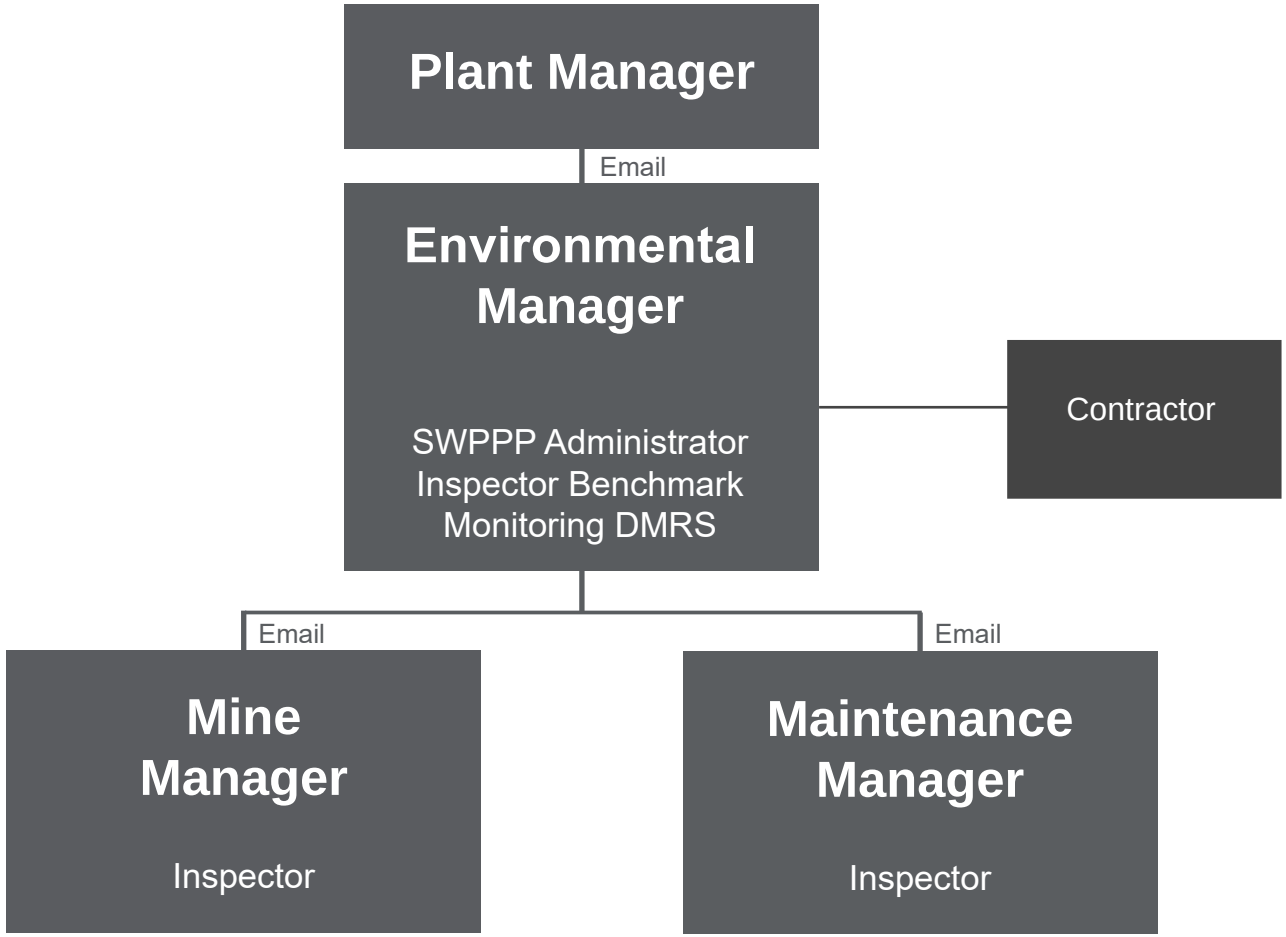
Cycle	2018
Category	4A - All TMDLs needed to rectify all identified threats or impairments have been completed and approved.
User Defined Category	N/A

Current Cycle

Cycle	2020
Category	4A - All TMDLs needed to rectify all identified threats or impairments have been completed and approved.
User Defined Category	N/A

Attachment G.

SWPPP Team Organization Chart



Water & Environmental TECHNOLOGIES

SWPPP Team Organizational Chart

Job #: MRM11

Date: 7/28/2022

Montana Resources