

U.S. AIR FORCE STORM WATER POLLUTION PREVENTION PLAN

Westover Air Reserve Base, Massachusetts



July 2021

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ABOUT THIS PLAN


This installation-specific Environmental Management Plan is based on the U.S. Air Force's standardized Storm Water Pollution Prevention Plan template. Where applicable, this Plan references external resources, including Air Force Instructions; Air Force Playbooks; federal, state, local, and county specific Final Governing Standards or Overseas Baseline Guidance Documents. Applicable permit requirements are also referenced.

Each section of this SWPPP begins with Air Force standardized, "common text" language that addresses Air Force, Department of Defense, and federal requirements, including the EPA General Permit. The common text language is maintained and updated by the designated Office of Primary Responsibility with assistance from the Office of Collateral Responsibility, as appropriate. Immediately following the Air Force common text sections are Installation-specific sections, which address state, local, and Installation-specific requirements. Installation sections are unrestricted and are maintained and updated by installation or Installation Support Team personnel.

This document is optimized to be accessed and viewed electronically. The eDASH website at <https://cs1.eis.af.mil/sites/edash/> is the primary communication tool for Air Force Environmental Management Plans.

OWNER CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained 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."

 MORIARTY.JOH
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JOHN B. MORIARTY, P.E.
CHIEF, ENVIRONMENTAL ENGINEERING

DOCUMENT CONTROL

Record of Updates – The Storm Water Pollution Prevention Plan (SWPPP) is modified and updated in accordance with (IAW) applicable permit requirements.

Page/Section	Nature of Change	Date of Change	Approved By
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	<i>Annual SWPPP Review - Final SWPPP Submitted</i>	<i>27 Aug 97</i>	
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	<i>Annual SWPPP Review – Final Revised SWPPP Submitted</i>	<i>24 Jan 01</i>	
	<i>Annual SWPPP Review – Final Revised SWPPP Submitted</i>	<i>8 Feb 02</i>	
	<i>Annual SWPPP Review – Final Revised SWPPP Submitted</i>	<i>22 Oct 02</i>	
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	<i>Annual SWPPP Review – Final Revised SWPPP Submitted</i>	<i>12 Sept 06</i>	
	<i>Annual SWPPP Review – Final Revised SWPPP Submitted</i>	<i>27 Sep 07</i>	
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	<i>Annual SWPPP Review – Final Revised SWPPP Submitted</i>	<i>6 Aug 09</i>	
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	<i>Annual SWPPP Review & Revision</i>	<i>10 May 12</i>	
	<i>Annual SWPPP Review & Revision</i>	<i>March 2013</i>	
	<i>Annual SWPPP Review & Revision</i>	<i>April 2014</i>	
	<i>Annual SWPPP Review & Revision</i>	<i>April 2015</i>	

Page/Section	Nature of Change	Date of Change	Approved By
	<i>Annual SWPPP Review & Revision by contractor AECOM to perform AFCEC Format Incorporation in Sept 2016; Updates by Ms. Saviengvong of CEV in Jan 2017; Certified by CEV Flight Chief per Wing Commander authorization</i>	<i>Sept 2016 and Jan 2017</i>	
	<i>Annual SWPPP Review & Revision</i>	<i>May 2017</i>	
	<i>Annual SWPPP Review & Revision</i>	<i>July 2018</i>	
	<i>Annual SWPPP Review & Revision</i>	<i>April 2019</i>	
	<i>Annual SWPPP Review & Revision</i>	<i>September 2020</i>	
	<i>Annual SWPPP Review & Revision for revised 2021 MSGP</i>	<i>May 2021</i>	

Record of Review – IAW Air Force Instruction (AFI) 32-1067, *Water and Fuel Systems*, the SWPPP is reviewed based on permit requirements

Review Date	Review Participants	Notes/Remarks	Results in Plan Update (Yes or No)
<i>Dec 2009</i>	<i>EA, Inc., WARB SWPPP Team</i>	<i>Annual review and update</i>	<i>Yes</i>
<i>2 Feb 10</i>	<i>EA, Inc., WARB SWPPP Team</i>	<i>Annual review and update</i>	<i>Yes</i>
<i>Nov 2010</i>	<i>EA, Inc., WARB SWPPP Team</i>	<i>Annual review and update</i>	<i>Yes</i>
<i>Dec 2012</i>	<i>EA, Inc., WARB SWPPP Team</i>	<i>Annual review and update</i>	<i>Yes</i>
<i>Jan 2014</i>	<i>EA, Inc., WARB SWPPP Team</i>	<i>Annual review and update</i>	<i>Yes</i>
<i>Jan 2015</i>	<i>EA, Inc., WARB SWPPP Team</i>	<i>Annual review and update</i>	<i>Yes</i>
<i>Sept 2016</i>	<i>AECOM, WARB SWPPP Team</i>	<i>Annual review and update</i>	<i>Yes</i>
<i>Jan 2017</i>	<i>WARB SWPPP Team</i>	<i>Update</i>	<i>Yes</i>
<i>May 2017</i>	<i>Cardno-EA Joint Venture</i>	<i>Annual review and update</i>	<i>Yes</i>
<i>July 2018</i>	<i>Cardno-EA Joint Venture</i>	<i>Annual review and update</i>	<i>Yes</i>
<i>April 2019</i>	<i>Cardno-EA Joint Venture</i>	<i>Annual review and update</i>	<i>Yes</i>

Review Date	Review Participants	Notes/Remarks	Results in Plan Update (Yes or No)
<i>September 2020</i>	<i>Wood-EA Joint Venture</i>	<i>Annual review and update</i>	<i>Yes</i>
<i>May 2021</i>	<i>Wood-EA Joint Venture</i>	<i>Annual review and update</i>	<i>Yes</i>

Version Table – A new version of the plan is created when pen and ink changes are incorporated. Below is a list of all versions under the current permit.

Version Number	Description	Date
1	<i>Comprehensive review and update. SWPPP was modified in accordance with the U.S. Air Force's (AF) standardized SWPPP template. Annual SWPPP Review & Revision</i>	<i>September 2016</i>
1.1	<i>Review and update based on annual evaluation of current base operations. Changes include MS4 requirements (Section 1.3.2).</i>	<i>July 2018</i>
1.2	<i>Review and update based on annual evaluation of current base operations.</i>	<i>April 2019</i>
1.3	<i>Review and update based on annual evaluation of current base operations.</i>	<i>September 2020</i>
1.4	<i>Review and update based on annual evaluation of current base operations and revised 2021 MSGP effective 1 March 2021.</i>	<i>May 2021</i>
1.5	<i>Final annual update based on evaluation of revised 2021 MSGP effective 1 March 2021.</i>	<i>July 2021</i>

1.0 OVERVIEW AND SCOPE

This SWPPP specifies how installation personnel prevent discharges to storm water of potential pollution from industrial operations. It contains procedures intended to minimize the risk of industrial storm water pollution in drainage areas located within the installation's boundaries. The SWPPP describes installation:

- Identification and evaluation of activities and potential storm water pollution sources
- Identification and implementation of storm water Best Management Practices (BMPs)
- Pollution reduction measures and procedures
- Monitoring and inspection procedures

The installation Storm Water Pollution Prevention Team (SWPPT) is responsible for developing, implementing, and managing the SWPPP.

Installation Supplement – Overview and Scope

This SWPPP is intended to be comprehensive, covering all applicable industrial operations at Westover Air Reserve Base (ARB). This plan covers the operations of the 439th Airlift Wing (439 AW) and its tenants. This SWPPP is written and implemented to comply with the requirements of the United States Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP) for Storm Water Discharges Associated with Industrial Activity (Permit No. MAR050000) effective 1 March 2021 and expiring on 28 February 2026, a copy of which is provided in **Appendix E**. A copy of the Notice of Intent (NOI) for coverage under the 2021 MSGP is provided in **Appendix F**.

Under MSGP Part 8, industrial activities have been organized into specific industrial sectors. At Westover ARB, industrial activities occur primarily under Sector S, Air Transportation. Only portions of Westover ARB that are involved in aircraft and/or ground vehicle and equipment maintenance (including mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, and/or deicing/anti-icing operations are included in Sector S. Throughout the SWPPP, reference is made to the corresponding part in the MSGP that define the requirements using italics and parentheses next to the section title. Reference to specific Sector S requirements is made in **Section 7.0**.

1.1 Physical Description and Current Mission (*MSGP Part 6.2.2*)

Westover ARB is composed of approximately 2,511 acres of land within the communities of Chicopee and Ludlow in the northern portion of Hampden County, Massachusetts. Westover ARB is five miles north of the City of Springfield, near the Towns of West Springfield, Granby, and South Hadley, 35 miles north of Hartford, Connecticut, and 90 miles west of Boston, Massachusetts. State Route 33, the main thoroughfare providing access to Westover ARB, is located less than one mile west of the installation. Approximately 2 miles southwest of the installation, State Route 33 intersects with Interstate 90 (the Massachusetts Turnpike), an east-west route between Boston and New York State. **Figure 1-1** shows the location of Westover ARB in relation to the surrounding region.

The predominant land use surrounding Westover ARB is residential, although a large percentage of land is devoted to commercial and industrial uses. Areas to the northeast consist mostly of rural communities with large agricultural and recreational uses. Areas to the south and west is the town of Chicopee. Westover ARB employs about 4,000 people.

The host unit at Westover ARB is the 439th Airlift Wing (439 AW) of the Air Force Reserve Command

(AFRC). The primary mission of the 439 AW is to provide worldwide air movement of troops, supplies, equipment, and medical patients. The 337th Airlift Squadron is the wing's flying unit and operates eight C-5 Galaxy aircraft. Because of the size of the C-5 aircraft, the 439 AW specializes in missions involving outsized and oversized cargo. The 439 AW also maintains all the aircraft assigned Air Force (AF) real property, equipment, and supplies.

Westover ARB also houses tenant organizations, some of which are covered within the scope of the storm water program operated by the 439 AW. Tenant organizations that are covered include the U.S. Marine Corps Reserves and Army Reserves. The tenant organization not covered is Westover Metropolitan Development Corporation (WMDC), which is a long-term tenant that operates an airport terminal and several hangars along the transient aircraft flight line.

Westover ARB has two active runways, Runway 05-23, which is 300 feet wide by 11,600 feet long, and Runway 15-33, which is 150 feet wide by 7,082 feet long. Runway 05-23 is oriented approximately southwest to northeast, while Runway 15-33 is oriented approximately northwest to southeast. A series of taxiways extending from the flightline parking apron provide access to the runways.

The activities and operations at Westover ARB are grouped by functional areas and land use categories, including aviation support, residential, commercial, industrial, medical, administrative, public facilities/recreation, and open space. The two primary land use categories are aviation support and industrial activities, which account for more than 50 percent of all facilities and square footage.

1.2 Permit Coverage Signage (*MSGP Part 1.3.5*)

A sign near the entrance to the installation on Westover Road indicates coverage of the installation under the MSGP. The sign includes the following information:

- “Westover ARB is permitted for industrial stormwater discharges under the U.S. EPA’s Multi-Sector General Permit (MSGP)”;
- The NPDES ID number provided by EPA in the coverage letter in **Appendix G**;
- The primary phone number for obtaining additional information about the SWPPP; and
- The web address for the publicly available SWPPP, and the following statement: “To report observed indicators of stormwater pollution, contact Westover ARB Environmental Office at 413-557-3951 and EPA Region 1 at: 1-888-372-7341.

1.3 Site Map (*MSGP Part 6.2.2.3 and MSGP Part 8.S.5.1*)

A general location map is provided in **Figure 1-1**. A detailed facility map is provided in **Appendix B** showing the layout of Westover ARB and locations of outfall points, areas with industrial activities, deicing operations, fueling stations, maintenance areas, receiving waters, and watershed boundaries.

1.4 Watershed Identification and Characterization

The topography of the Westover ARB is predominately flat, with elevations ranging from 230 to 240 feet above sea level. Westover ARB is a local high point, causing all surface water to flow away from the installation. All storm water from Westover ARB is discharged to either Cooley Brook, Stony Brook, or Willimansett Brook, all of which eventually flow into the Connecticut River. Stony Brook and Willimansett Brook discharge directly to the Connecticut River several miles downstream of Westover ARB. Cooley Brook flow through Chicopee Reservoir and discharges to the Chicopee River before discharging to the Connecticut River.

1.4.1 Outfall Descriptions

Outfall 001 discharges storm water runoff to Cooley Brook from the north portion of the East Ramp, where aircraft parking areas, aircraft fueling areas, aircraft deicing areas, and four aircraft and ground equipment maintenance hangars are located.

Outfall 002 discharges storm water runoff to Cooley Brook from the south portion of the East Ramp, where aircraft parking areas, two aircraft maintenance hangars, Base supply, the refueler truck maintenance facility, refueler truck parking, and bulk fuel storage and transfer areas are located.

Outfall 003 discharges storm water runoff to Cooley Brook from the south end of the airfield, the WMDC airport terminal area, and off-site run on.

Adjacent to Drainage Basin 003 is property that is leased by WMDC and includes several hangars and associated parking areas. An outfall that is managed by the City of Chicopee discharges storm water runoff from this area to Cooley Brook. Consequently, this outfall is covered under its own storm water discharge permit and is not the responsibility of Westover ARB.

Outfall 004 discharges storm water runoff to Willimansett Brook from the west portion of Westover ARB, where the hazardous materials pharmacy (HAZMART), hazardous waste storage, civil engineering, vehicle fueling station, and the recycling center are located.

Outfall 005 discharges storm water runoff to Stony Brook from the northwest portion of Westover ARB, where maintenance facilities, a firefighter training area, equipment storage, salt storage, and part of the airfield are located. Outfall 005 discharges within Westover ARB and ultimately flows through Outfall 011. Therefore, it is not a regulated outfall.

Outfall 006 discharges storm water runoff to Cooley Brook from the central portion of Westover ARB, where aircraft parking at North Ramp, part of the airfield, and the fire department are located.

Outfall 007 discharges storm water runoff to Cooley Brook from taxiways, runways, and grassy areas in the east-central portion of the installation. Limited industrial activities occur within the watershed.

Outfall 009 discharges storm water runoff to Cooley Brook from taxiways, runways, and grassy areas in the east portion of the installation. Outfall 009A is upstream of Outfall 009 and is where outfall monitoring and assessments are conducted. Limited industrial activities occur within the watershed.

Outfall 011 is located on Stony Brook, which enters the installation at the discharge point from Wade Lake. Outfall 005 and Outfall 011A discharge storm water runoff to Stony Brook within the boundaries Westover ARB. Outfall 011A discharges storm water runoff from mostly undeveloped areas on the north side of the installation. Limited industrial activities occur within the watershed.

Several outfalls meet the requirements of a substantially identical discharge point as described in the MSGP Part 3.2.4.5. The following outfalls have been determined to be substantially identical due to land use and industrial activities within each:

- Outfall 002 and Outfall 001
- Outfall 003 and Outfall 006
- Outfall 011 and Outfall 005 (Not Regulated)
- Outfall 007 and Outfall 009

Outfalls grouped as substantially identical discharge points will be sampled and inspected on a rotating basis as defined in the MSGP except for Outfall 003, which will no longer be monitored due to the high level of off base drainage and the difficulty of accessing the outfall due to its location down a steep embankment. Therefore, Outfall 006 will be inspected at each inspection interval as a substantially identical to Outfall 003. Outfall 004 does not meet the criteria of substantially identical to any other outfalls and will continue to be inspected at each inspection interval. **Table 1-1** presents the characteristics of the watersheds associated with each outfall.

Table 1-1
Industrial Outfall Characteristics at Westover ARB

Outfall	Total Drainage Area (Acres)	Impervious Area (Acres)	Percent Impervious (%)
001	171.6	106.4	62
002	131.7	72.5	55
003	177.2	108.1	61
004	353.2	70.8	20
006	170.3	94.2	55
007	163.0	36.7	22
009	142.4	21.2	15
011 ^a	499.0	46.5	9

Note: ^a Outfall 011 includes area for non-regulated Outfall 005.

1.4.2 Municipal Separate Storm Sewer System Evaluation

Westover ARB became a regulated urbanized area based on the 2010 census, which was officially released by the Census Bureau on 26 March 2012. Westover ARB submitted the NOI for the Massachusetts Small Municipal Separate Storm Sewer System (MS4) General Permit to the EPA prior to October 2018. A Storm Water Management Program has been developed for Westover ARB.

1.4.3 Impaired Water – Characterization by the State (MSGP Part 2.2.2)

The Massachusetts 2016 Section 303(d) Integrated List of Waters, published in December 2019, shows that two surface water bodies that receive runoff from Westover ARB are impaired. Total maximum daily loads (TMDLs) have not yet been established for either water body. **Table 1-2** summarizes the impairment listings for Westover ARB.

Table 1-2
303(d) Impaired Waters

Location/ Section	Waterbody Name (ID)	Impairment	TMDL Status
Outfall 011	Stony Brook; MA34-19	Non-native aquatic plants; <i>E. coli</i> ; Turbidity	TMDL needed
Outfall 004	Unnamed Tributary to the Connecticut River, locally known as Willimansett Brook; MA34-60	<i>E. coli</i>	TMDL needed

Source: Massachusetts Year 2016 Integrated List of Waters:

<<https://www.epa.gov/sites/production/files/2020-01/documents/2016-ma-303d-list-report.pdf>>

1.5 Meteorological Summary

Westover ARB is located in southwestern Massachusetts near Chicopee. The climate is typical of a New England maritime climate: cool, temperate, and somewhat wet. The all-time record high temperature is 104°F, and the record low temperature is -22°F.

The average annual precipitation at Westover ARB is 45.9 inches. This precipitation is distributed very evenly, averaging between 3 and 4 inches in every month of the year. The highest monthly precipitation total on record is 18.68 inches. The maximum 24-hour rainfall event has been 7.55 inches. On average, rain events greater than one-half inch in 24 hours occur on 27 days per year. On average, approximately 36 inches of snow falls annually at Westover ARB.

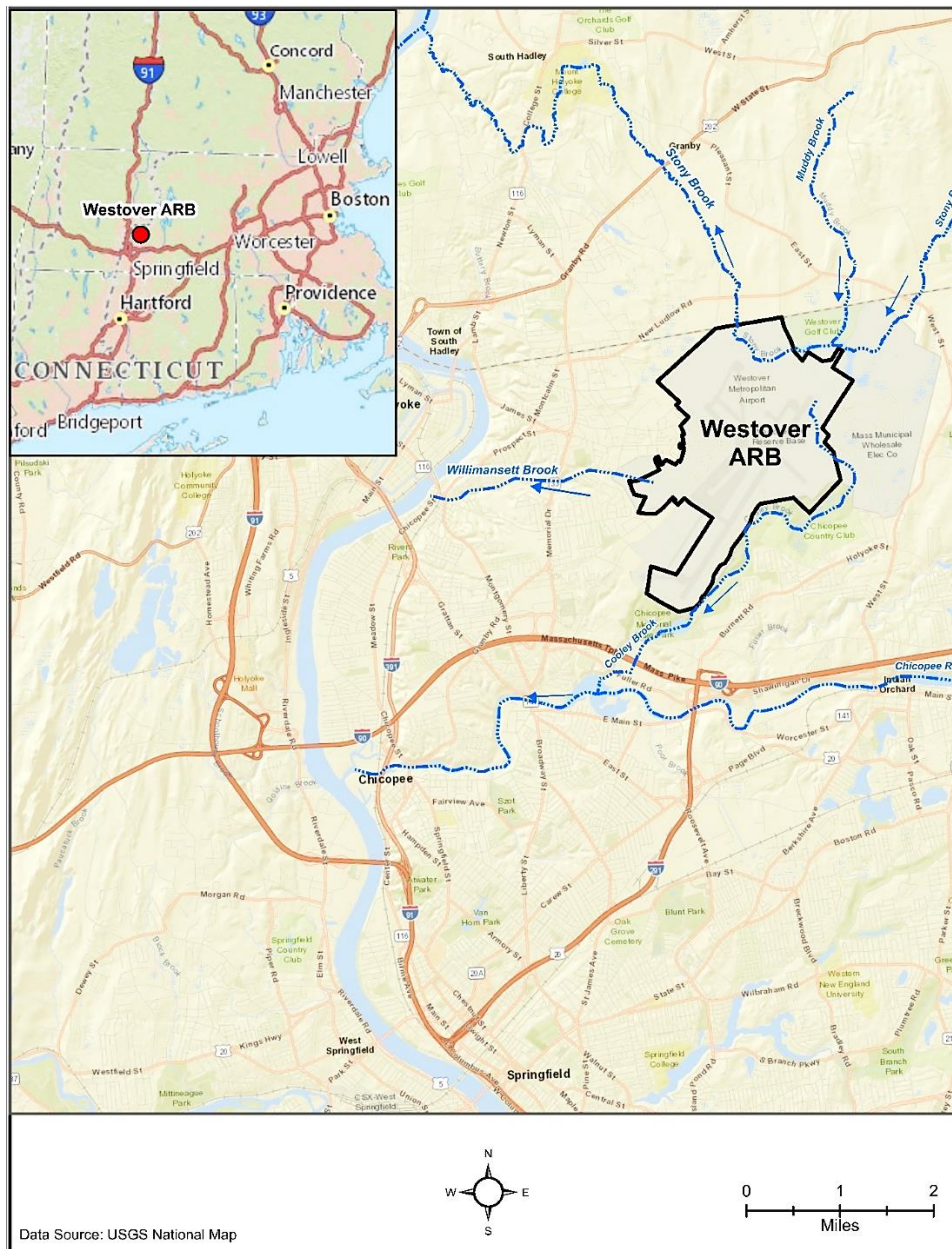


Figure 1-1
General Location Map of Westover ARB

2.0 INSTALLATION PROFILE

Scope of Plan	All applicable industrial operations at Westover ARB. This plan covers the operations of the 439th AW and its tenants
Facility Operator	Office Symbol: 439th AW Address: 250 Patriot Avenue City, State, Zip Code: Chicopee, MA, 01022 Telephone Number: 413-557-2434
Office of Primary Responsibility (OPR)	The Environmental Office (439 MSG/CEV) has overall responsibility for implementing the Storm Water Pollution Prevention Plan (SWPPP) and is the lead organization for monitoring compliance with applicable federal, state, and local storm water regulations
Responsible Official/Legally Responsible Person	Office Symbol: 439 AW/CC Name: JOSEPH D. JANIK, Colonel, USAF Telephone Number: 413-557-2434
Water Quality Program Manager (SWPPP Contact)	Name: Champanine Saviengvong Title: Water Program Manager Telephone Number: 413-557-3951 Email address: champanine.saviengvong@us.af.mil
Permitting Authority	United States Environmental Protection Agency (EPA)
Permit Type	Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity
Permit Number/Permit Tracking Number	General Permit MAR050000 Facility Permit MAR052002
Permit Expiration Date	28 February 2026
SIC Code(s)	4512, 9711
NAICS Code(s)	481, 928
General Location Map	See Location of Westover ARB Map in Section 1.0
Site Map	See Appendix B

3.0 ENVIRONMENTAL MANAGEMENT SYSTEM

The AF environmental program adheres to the Environmental Management System (EMS) framework and its Plan, Do, Check, Act cycle for ensuring mission success. Executive Order 13693, U.S. Department of Defense Instruction (DODI) 4715.17, AFI 32-7001, and international standard, ISO 14001:2004, provide guidance on how environmental programs should be established, implemented, and maintained to operate under the EMS framework.

The storm water program employs EMS-based processes to achieve compliance with all legal obligations and current policy drivers, effectively managing associated risks, and installing a culture of continuous improvement. The SWPPP serves as an administrative operational control that defines compliance-related activities and processes.

4.0 GENERAL ROLES AND RESPONSIBILITIES

The SWPPP requires the full involvement of all organizations and personnel on the installation, including contractors and other DoD organizations. The major roles/organizations involved in supporting the SWPPP at a typical installation include:

- Installation Commander
- Base Civil Engineer
- Environmental Element Chief
- Water Quality Program Manager
- Storm Water Pollution Prevention Team
- Installation Personnel
- Air Force Civil Engineer Center (AFCEC)
- Unit Environmental Coordinator (UEC, see AFI 32-7001)

Organizational and personnel roles and responsibilities are described throughout this SWPPP and in referenced documents. Detailed information regarding typical AF SWPPP guidance and policy is available in AFI 32-1067 and the Water Quality Playbook. Installation-specific roles and responsibilities are documented in the BMPs below.

Job Title	Responsibilities
SWPPP Team Chairperson	<ul style="list-style-type: none"> • Coordinates membership to the SWPPP team with representatives of the ESOHC. Ensures the team meets at least annually to discuss issues pertinent to the prevention of storm water pollution. • Ensures that Westover ARB complies with all EPA mandates associated with SWPPP, including filing appropriate notices-of-intent or termination. In addition, the SWPPP team chairperson files all necessary reporting documents to the state. • Ensures that an annual storm water training program for required personnel is developed and implemented. • Request funding to implement base-wide or site-specific BMPs. This effort may include the preparation of preliminary cost estimates or military construction cost documents. • Ensures that quarterly evaluations of the SWPPP to determine its effectiveness are performed. The SWPPP team chairperson will ensure that recommendations arising from these evaluations are incorporated into the SWPPP and are implemented. • Provides a report to the full ESOHC of the activities of the SWPPP team and the status of SWPPP at Westover ARB. • Maintains records of documents pertaining to SWPPP at Westover ARB. • Acknowledges that a database of significant spills and leaks is maintained. • Reviews subordinate management plans for incorporation of storm water pollution prevention strategies for applicable tenant operations.
ESOHC Chairperson	<ul style="list-style-type: none"> • Is provided with input on the implementation of storm water pollution prevention activities through the SWPPP team chairperson. • Annually review and recommend changes to the SWPPP. • Ensure compliance with MSGP and regulations, and annually review the status of all environmental permits, including the MSGP for storm water discharges associated with industrial activity.

Job Title	Responsibilities
Shop and Tenant Representatives on the SWPPP Team	<ul style="list-style-type: none"> • Attend and participate in meetings of the SWPPP team. • Implement all aspects of the SWPPP. This includes ensuring that all structural BMPs (e.g., secondary containment) are functioning properly and are adequately maintained. • Ensures, along with the SWPPP Team that no activity conducted by the 439 AW, Army Reserves/Army National Guard, the Marine Corps, or any other organization at Westover ARB leads to the degradation of storm water quality. • Identify specific individuals as members to the Team responsible for: <ul style="list-style-type: none"> ○ SWPPP development, implementation, maintenance, and revision ○ Inspections of designated equipment and areas ○ Completing and maintaining records of inspections ○ Appoint an individual representative from Aircraft Operations, Roads & Grounds, Vehicle Maintenance, and Bulk Fuels, as applicable ○ Ensure that routine (at least quarterly) inspections are conducted by qualified personnel at each facility or work area (i.e., facility manager or designated pollution prevention coordinator) and repair or report to 439 MSG/CEV any problems identified. • Coordinate storm water pollution prevention BMPs for projects that involve multiple organizations, as applicable, such as aircraft and runway deicing. • Provide and maintain the necessary storm water pollution prevention controls as required by the Permit and this SWPPP. • Ensure that new and existing employees receive the SWPPP training course, as well as the annual refresher training. • Inform the SWPPP team chairperson of any new activity that may adversely affect the quality of storm water in their operations. This may include construction activities that disturb soil, storage of material in an area inadequately served by storm water controls, or the initiation of an activity that may cause a discharge to the storm water system.
HQ AFRC/CEV and AFCEC	<ul style="list-style-type: none"> • Provide Westover ARB with numerous resources that are necessary to implement the SWPPP program. • Provide internal and external expertise to assist Westover ARB in complying with applicable regulations and AFIs. • Provide funding for SWPPP projects and contractor support for additional manpower as needed.

Installation Supplement – General Roles and Responsibilities

4.1 Storm Water Pollution Prevention Team (MSGP Part 6.2.1)

Westover ARB has identified staff members (by name or title) that comprise the installation's SWPPT and their responsibilities. The SWPPT is responsible for overseeing development and modification of the SWPPP, implementing, and maintaining storm water control measures, and taking corrective actions when necessary. Each member of the SWPPT must have access to electronic or paper copy versions of applicable portions of the MSGP, the most recent version of the SWPPP, and other relevant records that must be kept with the SWPPP.

5.0 TRAINING

The installation implements storm water training programs to ensure installation personnel, contractors, and visitors are aware of their roles in the program and the importance of their participation in its success. DoDI 4715.10, *Environmental Education, Training, and Career Development*, implements policy and provides the procedures to obtain environmental education, training, and career development programs for DoD personnel. Installation leadership ensures that appropriate personnel complete required education, training, and certification necessary to perform their jobs. Priority for training is given to the use of AF-approved education/training sources such as the Air Force Institute of Technology (AFIT) training courses and official AF-approved computer-based training resources (e.g., The Environmental Awareness Course Hub [TEACH], Advanced Distributed Learning Service [ADLS], ArcNet, etc.) to meet training needs.

Specific training requirements are outlined in Employee Training Control Measure in Section 7 below. Training records are maintained in accordance with the Recordkeeping and Reporting section of this plan.

Installation Supplement – Training

5.1 Employee Training Plan (MSGP Part 2.1.2.8)

Employee training is essential to effective implementation of the SWPPP. The purpose of a training program is to teach personnel at all levels of responsibility the components and goals of the SWPPP. When properly trained, personnel are more capable of preventing spills, responding safely and effectively to an accident when one occurs, and recognizing situations that could lead to storm water contamination.

Per the MSGP, *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) must be trained. Storm water pollution prevention training is provided annually to Maintenance Group (MXG) and as needed to shop and tenant representatives on the SWPPT.

The following personnel must 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 storm water discharges
- Personnel responsible for conducting monitoring and inspections
- Personnel responsible for documentation requirements for monitoring and inspections
- Personnel responsible for implementing and documenting corrective actions

Personnel must be trained in at least the following as related to the scope of their job duties (e.g., only personnel responsible for conducting inspections need to understand how to conduct inspections):

- An overview of what is in the SWPPP
- Spill response procedures, good housekeeping, maintenance requirements, and material management practices
- The location of all BMPs and structural controls on the site required by the permit, and how they are to be maintained
- The proper procedures to follow with respect to the permit's pollution prevention requirements

- Emergency procedures to minimize impacts from significant weather events, if applicable per MSGP Part 2.1.1.8.
- When and how to conduct inspections, sampling, record applicable findings, and take corrective action.

Employees need only be trained in topics that pertain to their individual or group's role in maintaining general or site-specific storm water control measures or conducting inspections. Each respective Base training liaison maintains their own training log.

6.0 RECORDKEEPING AND REPORTING

Installation personnel as identified in this SWPPP implement measures to ensure compliance with applicable permit recordkeeping and reporting requirements. Records are stored and maintained in accordance with Air Force Manual 33-363, *Management of Records*, and records are archived and disposed in accordance with the Air Force Records Information Management System Records Disposition Schedule. The installation complies with permit reporting requirements.

The installation maintains the following permit, inspection, monitoring, and certification records with the SWPPP. Overseas installations may have different requirements than the list below. When possible, an electronic version of the record is made available in the references section of this plan.

- Copy of the NOI
- Copy of the acknowledgement letter containing the permit tracking number
- Copy of the permit
- Description and dates of any significant spills, leaks, or other releases. Note: the installation maintains this information in the Enforcement Actions, Spills, and Inspections (EASI) database, and a link is available in the references section of this SWPPP
- Employee training records
- Documentation of maintenance and repairs of control measures
- Quarterly Inspection reports
- Documentation of deviations from the schedule for monitoring or assessments and the reason for the deviation
- Documentation of corrective actions taken
- Documentation of benchmark exceedances and any response actions
- Documentation to support determination that pollutants of concern are not expected to be present above natural background levels if water is discharged directly to impaired waters when required by the permitting agency

Additional state, local, or host nation recordkeeping and reporting requirements are described in the Installation Supplement, as necessary.

When possible, a link to the electronic version of the record is made available in **Section 8.0**.

Installation Supplement – Recordkeeping and Reporting

6.1 Recordkeeping (MSGP Part 7.7)

Records for Westover ARB are maintained as follows:

- Appendix A - Description and dates of any significant spills, leaks, or other releases. Note: the installation maintains this information in the Enforcement Actions, Spills, and Inspections (EASI) database, and a link is available in the references section of this SWPPP
- Appendix B - Site Map
- Appendix C - Employee training records
- Appendix D - RIAP Forms
- Appendix E - Copy of the 2021 Multi-Sector General Permit
- Appendix F – 2021 MSGP NOI
- Appendix G - 2021 MSGP Coverage Acknowledgement Letter with the Permit Tracking Number
- Appendix H - Quarterly Outfall Inspection reports
- Appendix I - Annual EPA Reports

- Appendix J - Annual Air Force Voluntary Third- Party Evaluation Reports
- Appendix K - Commander Designation Letter
- Appendix L – Storm Water Outfall Visual Assessment Form
- Appendix M - Industrial Facility Routine Stormwater Inspection Report
- Appendix O - Documentation of Corrective Action
- Appendix P - Documentation of Benchmark Exceedances and Response Actions
- Appendix Q - Documentation to Support Determination That Pollutants of Concern Are Not Expected to be Present Above Natural Background Levels if Water is Discharged Directly to Impaired Waters When Required by the Permitting Agency
- Appendix R - Documentation of Deviations from the Monitoring or Assessments Schedule and the Reason for the Deviation
- Appendix S - Endangered Species Documentation/ USFWS Consultations

In addition to the recordkeeping and reporting described above, Westover ARB maintains reports of the routine inspections performed according to **Section 7.4**. Westover ARB shall maintain the SWPPP, and associated records listed above, for three years after coverage under this permit expires.

6.1.1 Recording of Monitoring Activities and Results (*MSGP Appendix B.10*)

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 unless other test procedures have been specified in the MSGP. Records of all monitoring information must be maintained for a period of at least three years from the date coverage under the MSGP expires or the date the permittee's authorization is terminated.

Quarterly facility inspection reports and monthly deicing inspection reports are maintained by the Water Program Manager for least three years from the date permit coverage expires or is terminated. The Air Force Voluntary Third-Party Evaluation Reports are maintained in **Appendix J** of this SWPPP.

6.2 Electronic Reporting (*MSGP Part 7.1 and MSGP Part 7.2*)

Westover ARB will submit appropriate reporting information electronically using the EPA NPDES eReporting Tool (NeT-MSGP) at web address provided in **Section 8.0**. Information that must be submitted to EPA via NeT-MSGP includes:

- NOI;
- Change of NOI;
- Notice of Termination (NOT);
- No Exposure Certification (NOE);
- Annual reports; and
- Discharge monitoring reports, as required.

Other information that must be submitted to the EPA Regional Office includes:

- New dischargers and new sources to Impaired Water;
- Report of exceedance of numeric effluent limit;
- Within 24 hours of becoming aware of any non-compliance that may endanger health or the environment, provide an oral report;
- Within 5 days of becoming aware of any non-compliance that may endanger health or the environment, provide a follow-up report;

6.3 Monitoring Reporting (*MSGP Part 4.1.9 and MSGP Part 7.3*)

Monitoring data must be reported using Net-DMR, EPA's electronic discharge monitoring report (DMR) tool, no later than 30 days after receiving the complete laboratory results.

Waivers from electronic submittals are good only for one-time submittal. Another waiver must be requested from the EPA Region 1 office each time Westover ARB cannot submit electronically.

6.4 Annual Report (*MSGP Part 7.4*)

Westover ARB must submit an electronic Annual Report to EPA by 30 January of each year of permit coverage containing information generated from the past calendar year. Copies of most recent Annual Reports are provided in **Appendix I**.

6.5 Spill Event Reporting

The Westover ARB Spill Prevention, Control, and Countermeasures (SPCC) Plan details numerous reports that should be completed as a follow-up to a reportable spill event. These records include:

- The date and time of the incident, weather conditions, duration, cause, environmental problems, response procedures, parties notified, recommended revisions of the spill plan, operating procedures, and/or equipment needed to prevent recurrence;
- Formal written reports to document notification to outside agencies such as the National Response Center, MassDEP, or other; and
- A list of the procedures for notifying the appropriate installation personnel and the name and telephone number of responsible personnel. This enables more rapid reporting of and response to spills and other incidents.

6.6 SWPPP Review and Revisions (*MSGP Part 5.1.1*)

The overall effectiveness of the storm water program is evaluated through a program of storm water monitoring, accurate recordkeeping, routine industrial facility inspections, and any voluntary inspections conducted by contractors hired by the Air Force. If it is determined that the SWPPP is not effectively maintaining the quality of the storm water leaving Westover ARB, the plan will be modified to correct these inadequacies.

A log of changes to the plan is listed in the front of this SWPPP. The MSGP requires review and modification to the SWPPP whenever:

- An unauthorized release or discharge (e.g., spill, leak, or discharge of non-stormwater not authorized by this or another NPDES permit to a water of the United States) occurs;
- A discharge violates a numeric effluent limit listed in Sector S requirements in MSGP Part 8;
- Stormwater control measures are not stringent enough for your stormwater discharge to be controlled as necessary such that the receiving water of the United States will meet applicable water quality standards or to meet the non-numeric effluent limits in this permit;
- Required storm water control measure were never installed, was installed incorrectly, or not in accordance with MSGP Parts 2 and/or 8, or is not being properly operated or maintained; or
- A visual assessment shows evidence of stormwater pollution (e.g., color, odor, floating solids, settled solids, suspended solids, foam).

7.0 PROCEDURES - STORM WATER POLLUTION PREVENTION PLAN

7.1 Potential Pollution Sources

Areas at the installation where industrial materials or activities are exposed to storm water are described in the Installation Supplement below.

Documentation of significant spills is maintained in the AF EASI database. A link to EASI is available in the references section of this plan and required information may be maintained in an appendix.

Installation Supplement – Potential Pollution Sources

Summary of Potential Pollutant Sources (MSGP Part 6.2.3)

Areas at Westover ARB where industrial materials or activities are exposed to storm water or from which allowable non-storm water discharges originate must be identified and described. Industrial materials or activities include but are not limited to: material handling equipment or activities; industrial machinery; raw materials; industrial production and processes; and intermediate products, by-products, final products, and waste products. 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. For structures located in areas of industrial activity, Westover ARB personnel must be aware that the structures themselves are potential sources of pollutants. This could occur, for example, when metals such as aluminum or copper are leached from the structures as a result of acid rain.

7.1.1 Industrial Area Identification and Survey

Through a review of documents, discussion with personnel, and visual inspections, all areas of the installation were surveyed to identify areas where certain industrial activities take place with industrial materials or chemicals that could potentially be exposed to precipitation and contaminate storm water. This includes areas with material handling equipment or activities, industrial machinery, and storage of raw materials, intermediate products, byproducts, final products, or waste products.

Distinct buildings or areas that meet the criteria are considered industrial facilities or regulated industrial activity points (RIAPs). Non-industrial facilities at Westover ARB include office buildings, residential areas, and facilities with no industrial activities taking place.

As part of the RIAP identification process, a detailed inspection has been conducted at each industrial facility to identify the activities performed, materials stored, BMPs currently in place, and the likelihood for non-storm water discharges from these locations. For each area of the installation that generates storm water discharges associated with industrial activity with a reasonable potential to contaminate storm water, a prediction of the direction of flow, and an identification of the types of pollutants likely to be present in storm water discharges associated with industrial activity was completed. The results of this evaluation are provided on the individual RIAP Forms provided in **Appendix D**.

Buildings/facilities identified as RIAPs based on this screening process are shown on **Table 7-1**. The RIAP list will be revised based on observations and conversations with installation personnel during each annual Air Force Voluntary Third-Party Evaluation.

Table 7-1
REGULATED INDUSTRIAL ACTIVITY POINTS (RIAPS)

1301	5425	7084
1530	7000	7705, 7713, 7714
2450	7025, 7026, 7027	7711
2500	7040	8005
2506	7045, 7046	Flightline Apron
3101, 3506, 3507	7071	Transient Aircraft Apron
3405	7072	Soil Stockpile
3505	7073	
5375	7075	

The RIAP Form is comprised of the following sections:

1. Inventory of Hazardous Materials Potentially Exposed to Storm Water: Lists and identifies hazardous chemicals, petroleum products, or other materials that are present in substantial quantity that could potentially contact precipitation or runoff.
2. Potential for Storm Water Contamination: Describes activities occurring with the potential to cause storm water contamination.
3. Description of Storm Water Entry Points and Ultimate Outfall Points: Describes areas where contaminated storm water could enter the storm drainage system and identifies the ultimate outfall point.
4. Current BMPs in Place: Identifies the general and site-specific BMPs in practice at the time of the most recent inspection.
5. Suggested BMPs: Suggests new BMPs that would mitigate storm water pollutant discharges.
6. Other Information: Presents other related or interesting information.

Quarterly inspections are conducted at each industrial facility using the *Industrial Facility Routine Stormwater Inspection Report* in **Appendix M**, the RIAP Forms in **Appendix D**, and the guidance provided in **Section 7.4**.

7.1.2 Inventory of Materials Potentially Exposed to Storm Water (MSGP Part 6.2.3.1 and MSGP Part 6.2.3.2)

Each RIAP inspection form identifies potentially exposed storm water pollutants and possible pathways for contaminated storm water to enter the drainage system. There are several pollutant parameters that could be present in storm water at Westover ARB and potentially enter adjacent surface water bodies. These include biochemical oxygen demand (BOD), chemical oxygen demand (COD), total suspended solids (TSS), oil and grease, propylene glycol, potassium acetate, sodium formate, sodium chloride, and various hazardous constituents of fuels (e.g., benzene, toluene, xylene, cyclohexane, ethylbenzene, and naphthalene). These contaminants can enter storm water via aircraft and vehicle fueling, aircraft and runway deicing, and incidental spills and leaks. **Section 7.2** describes the management practices that are routinely performed at Westover ARB to prevent exposed materials from being discharged to the environment. Management procedures have been implemented at Westover ARB that are designed to reduce the potential for release of potential storm water pollutants, including:

- Hazardous materials are distributed through a Hazardous Materials Pharmacy (Hazmart) that limits storage requirements and waste generation base-wide. Materials are allocated for use at industrial facilities on an as-needed basis. Unused materials may be returned to the pharmacy for proper disposal or so it can be made available for other users.
- Flight planning is used to minimize the need for deicing. When possible, aircraft are parked in hangars prior to weather conditions that can create icing conditions. Radiant heating from the hangar's ceiling heaters is used to defrost planes when possible.
- Potassium acetate is used for runway deicing. When a predictable weather forecast is provided, potassium acetate is used as an anti-icing chemical to prevent the surface of the runway from freezing. When used in anti-icing operations, the amount of potassium acetate required to prevent the runway from icing is approximately half the amount required to defrost a frozen runway. Westover ARB uses vehicle-mounted runway surface and air temperature measuring equipment to monitor ambient conditions and a vehicle-installed decelerometer to measure runway slickness. Use of this equipment allows Westover ARB to apply the appropriate amount of potassium acetate to the runway and apron surfaces without over-applying.
- Waste minimization and pollution prevention efforts have successfully reduced hazardous material usage and waste generation over the past several years. All uses of hazardous materials are evaluated to determine if less toxic materials could be used instead.

7.1.3 Past Spills and Leaks (*MSGP Part 6.2.3.3*)

The MSGP requires documentation of significant spills and leaks of oil, toxic, or hazardous pollutants that occurred during the previous three years. Significant spills include, but are not limited to, releases of oil or hazardous substances in excess of quantities that are reportable under Section 311 of the Clean Water Act (CWA) or Section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Fuel spills in excess of ten gallons are considered reportable in Massachusetts.

Oil spills and leaks are one of the major storm water pollution concerns at Westover ARB. Petroleum-based fuels and oils have a variety of hazardous components (e.g., benzene, toluene, and xylene) that could have adverse impacts on receiving water quality in the event of an accidental discharge. Because high quantities of Jet-A fuel are used at Westover ARB, it has the greatest potential to contaminate storm water. Large quantities of Jet-A fuel are transferred from the tanks at the POL Storage Area to refueler trucks, which transport fuel to the Flightline for aircraft fueling. Additionally, the aircraft hydrant system is used to pump the fuel via underground pipeline directly to the aircraft. Fuel spills from overfills of aircraft, refueler trucks, or fuel bowsers can occur on the Flightline or in the POL Complex.

Small oil spills can occur at Westover ARB from other fuel transfer operations, including refueling organizational tanks and equipment throughout the installation. A list of spills and leaks that have occurred over the past three years is included in **Appendix A**. Reporting requirements for future spills and leaks are presented in **Section 7.4**.

7.1.4 Non-Storm Water Discharges (*MSGP Part 1.2.2.1*)

The non-storm water discharges listed below are authorized by this permit.

- Discharges from emergency/unplanned fire-fighting activities;
- Fire hydrant flushing;
- Potable water sources including water line flushing;
- Uncontaminated condensate from air conditioners, coolers/chillers, and other compressors and from the outside storage of refrigerated gases or liquids;

- Irrigation/landscape drainage, provided all pesticides, herbicides, and fertilizers have been applied in accordance with the approved labeling;
- Landscape watering provided that all pesticides and fertilizers have been applied in accordance with manufacturer's instructions;
- Pavement wash waters, provided that detergents or hazardous cleaning products (e.g. bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols) are not used and the wash waters do not come into contact with oil and grease deposits, sources of pollutants associated with industrial activities (see MSGP Part 6.2.3), or any other toxic or hazardous materials, unless residues are first cleaned up using dry clean-up methods (e.g., applying absorbent materials and sweeping, using hydrophobic mops/rags) and you have implemented appropriate control measures to minimize discharges of mobilized solids and other pollutants (e.g., filtration, detention, settlement);
- External building/structure washdown / power wash water that does not use detergents or hazardous cleaning products (e.g., bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols) and you have implemented appropriate control measures to minimize discharges of mobilized solids and other pollutants (e.g., filtration, detention, settlement);
- Uncontaminated ground water or spring water;
- 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 your facility, but not intentional discharges from the cooling tower (e.g., "piped" cooling tower blowdown; drains; and
- Any authorized non-stormwater discharge listed above, or any stormwater discharge listed in MSGP Part 1.2.1 mixed with a discharge authorized by a different NPDES permit and/or a discharge that does not require NPDES permit authorization.

7.1.5 Illicit Connections (*MSGP Part 2.1.2.9*)

An illicit connection is a type of non-storm water discharge and occurs when indoor plumbing (e.g., floor drains, sinks, or trench drains) is connected to the storm sewer system rather than the sanitary sewer system. Determinations of flow drainage patterns and sewer connections are made by reviewing building utility schematics and sewer maps. However, if the drainage destinations remain unclear, visual inspections and/or dye testing is required.

Visual inspection of the storm sewer lines can often provide an indication of a non-storm water discharge. If there is flow present in the storm sewer during warm, dry weather, then it is often an indication of an illicit connection. A dye test can also be performed to aid in locating an illicit connection. The dye test consists of releasing dye into floor drains and sinks where illicit connections are suspected. Investigators, equipped with high-powered flashlights and communication devices, are then stationed at both the storm and sanitary sewer outlets to examine the discharge for discoloration.

In 1994, several sites were suspected of having illicit connections to the storm sewer due to their proximity to storm sewer inlets, the age of the building, or the building manager's description of flow patterns. To identify these illegal connections, an illicit connection survey was performed in April 1994 as part of the initial SWPPP site assessment. The survey included a review of building utility schematics and sewer maps, visual inspections, and dye testing.

In total, five dye tests were performed at three sites in 1994. Illicit connections were identified at Building 7000 (Fuel Systems Shop, Aircraft Inspection), Building 7084 (Fire Department), Building 1601 (Morale, Welfare, and Recreation), and Building 7711 (Refueler Truck Maintenance). Building 1601 was

demolished in 2002 and Building 7000 no longer has illicit connections. The illicit connections at Building 7084 and Building 7711 were identified through conversations with installation personnel and review of facility drawings. Floor drains in Building 7084 were re-piped to the sanitary sewer. A mechanical plug was installed into the storm system line within the first manhole down-gradient of the OWS, effectively cutting off the OWS from the storm water drainage system.

7.2 Storm Water Control Measures

The installation implements control measures to meet applicable permit effluent limits. The categories of control measures include:

- Minimize exposure
- Good housekeeping
- Maintenance
- Spill prevention and response
- Erosion and sediment controls
- Management of runoff
- Salt piles
- MSGP sector-specific non-numeric effluent limits
- Employee training
- Waste, garbage, and floatable debris
- Dust generation and vehicle tracking of industrial materials

Installation-specific control measures are further described in the Installation Supplement below, along with applicable additional state or local sector-specific measures.

Installation Supplement – Storm Water Control Measures

7.2.1 Identification of BMPs for Storm Water Pollution Control (MSGP Part 2.1)

The EPA guidance manual, *Storm Water Management for Industrial Activities – Developing Pollution Prevention Plans and Best Management Practices* uses the term “BMPs” for all storm water control measures, practices, and controls. The term BMP is used the same manner in the SWPPP, such that all BMPs are considered storm water control measures as described in MSGP Part 2.1. BMPs are storm water control measures used to prevent or mitigate pollution from any type of activity. BMPs are a very broad class of measures and may include processes, procedures, schedules of activities, prohibitions on practices, and other management practices to prevent or reduce water pollution. They may be inexpensive or costly. BMPs can be anything that prevents toxic, hazardous, or nuisance substances from entering storm water.

General BMPs apply to many areas of the installation, such as good housekeeping, preventative maintenance, visual inspections, spill prevention and response, and employee training. Site-specific BMPs apply to each RIAP that could contaminate storm water. General and site-specific BMPs at Westover ARB are discussed below.

7.2.2 Maintaining Storm Water BMPs (MSGP Part 2.1.2.3)

Westover ARB has been maintaining BMPs since receiving initial coverage under the NPDES Storm Water MSGP in January 2001. Installation personnel have implemented many of the suggested BMPs recommended for pollution prevention, are aware of preventative maintenance practices, and promptly notify the appropriate personnel when a SWPPP concern needs to be addressed.

The general and site-specific BMPs listed below are routinely inspected and maintained. The RIAP Forms in **Appendix D** identify the BMPs applicable to individual shops at Westover ARB.

7.2.3 General BMPs

There are numerous BMPs that apply generally to the installation as a whole. Some of these general BMPs are implemented at an installation level, while most are implemented at a shop level. This subsection will describe the general BMPs used at Westover ARB and the various components and activities associated with each general BMP.

7.2.3.1 General BMPs Implemented at the Installation Level

The following general BMPs are implemented across the installation and are not the responsibility of the individual RIAPs. These BMPs provide overall practices that can limit the potential for contamination of storm water discharges from Westover ARB.

7.2.3.1.1 Divert, Infiltrate, Reuse, or Contain Storm Water Runoff (MSGP Part 2.1.2.6)

BMPs to divert, infiltrate, reuse, or otherwise reduce pollutants in storm water discharges have been installed at Westover ARB and include storm water detention and/or retention structures, secondary containment structures, and open vegetated swales and natural depressions to allow flow attenuation and infiltration of runoff on-site. **Appendix B** shows locations of structural BMPs such as catchment basins, culverts, and secondary containment structures for tanks. Structural BMPs are inspected for proper operation on a quarterly basis.

7.2.3.1.2 Eliminate Unauthorized Non-Storm Water Discharges (MSGP Part 2.1.2.9)

Non-storm water discharges to surface waters of the State that are not listed in MSGP Part 1.1.3 and **Table 7-2** are not authorized by the MSGP and must be terminated. All outfalls have been evaluated through visual inspection for the presence of non-storm water discharges and continue to be evaluated for the presence of non-storm water discharges on a quarterly basis. Allowable non-storm water discharges that occur on Westover ARB and the results of a study to identify illicit connections are addressed in **Section 7.1**.

If non-storm water discharges or illicit connections are identified, the illicit connection should either be connected to the sanitary sewer or the non-storm water discharge should be stopped by blocking or disconnecting the floor drain if it is not needed. Where the connection is needed for storm water drainage, and where there is occasional transfer of hazardous materials, the drain can be temporarily covered or blocked with a mat or plug. Alternatively, the operation generating the wastewater can be moved to an area that drains to the sanitary sewer.

7.2.3.1.3 Security Procedures

Strong security measures can be an important facet of the SWPPP by preventing an accidental or intentional release of hazardous materials to storm water as a result of vandalism, theft, sabotage, or other improper use of facility property. Westover ARB has a comprehensive security system consisting of the following:

- High fencing around the perimeter;

- An on-site security force that patrols the installation;
- Requirements for credentials for visitors; and
- Extensive lighting on buildings and poles.

7.2.3.2 General BMPs Implemented at the RIAP Level

General BMPs are implemented at every industrial facility and are identified on the RIAP Inspection Forms in **Appendix D**. The narrative below provides details on the procedures for each General BMP.

7.2.3.2.1 Minimize Exposure (MSGP Part 2.1.2.1)

Exposure of loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations to rain, snow, snowmelt, and runoff is minimized by:

- Locating industrial materials and activities inside or by protecting with storm resistant coverings.
- Using 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.
- Clean up spills and leaks promptly using dry methods.
- Store leaky vehicles and equipment indoors, or, if stored outdoors, use drip pans and absorbents.
- Use spill/overflow protection equipment.
- Drain fluids from equipment and vehicles prior to on-site storage for disposal.
- Perform cleaning operations indoors, under cover, or in bermed areas to prevent runoff and run-on, capture overspray, and ensure wash water drains to a proper collection system (i.e., not storm water drainage system).

7.2.3.2.2 Good Housekeeping (MSGP Part 2.1.2.2)

Good housekeeping practices are designed to maintain a clean and orderly work environment. Often the most effective first step towards preventing pollution in storm water from industrial sites simply involves using good common sense to improve the facility's basic housekeeping methods. Poor housekeeping can result in more waste being generated than necessary and an increased potential for storm water contamination. Well-maintained and orderly material and chemical storage areas will reduce the possibility of storm water mixing with pollutants.

A garbage collection and recycling center (RIAP 2506) is operated for the benefit of other commercial and industrial facilities at Westover ARB. The collection of domestic waste and recyclables is managed by dedicated staff to ensure items are properly sorted, contained, and debris does not become mobilized.

Currently, good housekeeping practices at Westover ARB are a common-sense BMP that are left up to the individual RIAP managers. To ensure good housekeeping is maintained at all RIAPs, a specific set of guidelines has been developed for managers to instruct their personnel to follow. The guidelines for good housekeeping practices are shown in **Table 7-2**.

Table 7-2
Guidelines for Good Housekeeping

- Maintain dry, clean floors and ground surfaces by using brooms, shovels, vacuum cleaners, or cleaning machines at regular intervals.
- Do not hose down floors with water or discharge any wash water to the outside environment at regular intervals.
- Use dry clean-up methods to collect spills and ensure that spill cleanup procedures are understood by employees.
- Store hazardous waste/material containers in appropriate accumulation areas that have secondary containment.
- Regularly pick up and dispose of garbage and non-hazardous waste material.
- Make sure vehicles, equipment, and machinery are working properly.
- Routinely inspect for leaks or conditions that could lead to discharge of chemicals or contact of storm water with raw materials, intermediate materials, waste materials, or products.
- Remove any accumulated debris (e.g., trash, tree limbs) from catch basins to ensure catch basins continue to function properly.
- Drain fluid from old parts prior to disposal to prevent potential contact of HAZMATs with storm water.
- Provide adequate aisle space to facilitate material transfer and easy access for inspections.
- Store containers, drums, and bags away from direct traffic routes to prevent accidental spills.
- Stack containers according to manufacturers' instructions to avoid damaging the containers from improper weight distribution.
- Store containers inside and on pallets or similar devices whenever possible to prevent corrosion of the containers, which can result when containers come in contact with moisture on the ground.
- Maintain an up-to-date inventory of materials to prevent overstocking and exceeding shelf-lives of materials.
- Assign the responsibility of hazardous material inventory to a limited number of people who are trained to handle hazardous materials.
- Perform washing, fueling, and maintenance activities of vehicles and equipment inside or in designated areas.

7.2.3.2.3 Preventative Maintenance (MSGP Part 2.1.2.3)

A description of the Preventative Maintenance Program applicable to storm water pollution prevention at Westover ARB is presented in **Section 7.4**.

7.2.3.2.4 Spill Prevention and Response (MSGP Part 2.1.2.4)

Spills and leaks are the largest industrial source of storm water pollutants and, in most cases, are avoidable. Establishing standard operating procedures, such as safety and spill prevention procedures, along with proper employee training can reduce these accidental releases. Westover ARB has implemented a base-wide SPCC Plan per 40 CFR Section 112 to address prevention and response of spills from the largest oil storage areas at the installation.

Preventing spills and leaks is preferable to cleaning them up after they occur, not only from an environmental standpoint, but because spills cause increased operating costs and lower productivity. Material handling procedures, storage requirements, secondary containment, and equipment are designed to prevent and control spills and leaks at RIAPs. Response measures

Secondary containment includes dikes or curbing around material storage and loading/unloading areas. Secondary containment dikes should be impervious and be capable of holding the entire contents of the largest single container, plus sufficient freeboard to allow for precipitation. The Fuels Operation Contractor conducts routine inspection of the bulk fuel storage tanks and containment dikes. Another form of secondary containment is a double-walled aboveground storage tank (AST). The outer wall is constructed of steel or concrete and provides secondary containment for the inner tank and protects it from accidental damage. Double-walled tanks can be used in place of the traditional AST inside a secondary containment dike.

Drip pans are used to catch drips from equipment (vehicles, valves, pipes, etc.) before contaminating storm water. Leaks and drips should be repaired or eliminated as part of a preventive maintenance program. However, drip pans can provide a temporary solution when repair or replacement must be delayed. Proper usage of drip pans, especially when used under vehicles, includes proper procedures for deployment, maintenance, and inspection. Drip pans should be deployed to contain leaks only when necessary. They should not be a permanent fixture for certain types of equipment. Maintenance of deployed drip pans should include servicing drip pans before and after rain events and taking proper measures to dispose of any potential contaminants. Even if there are no rain events, periodic checks should be done to ensure proper placement of the drip pans and to re-evaluate their deployment.

7.2.3.2.5 Erosion and Sediment Controls (MSGP Part 2.1.2.5)

Exposed areas must be stabilized and runoff controlled using structural and/or non-structural control measures to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants. BMPs for controlling sediment-laden runoff from construction sites or other areas with high erosion potential are presented below under Site-Specific BMPs for Construction Projects and Areas with High Soil Erosion Potential.

7.2.3.2.6 Salt Storage (MSGP Part 2.1.2.7)

Westover ARB stores salt for deicing purposes in an enclosed building to minimize exposure to precipitation, except during active operations to add or remove materials from the pile. The salt storage yard is listed as a RIAP at Building 3405. Good housekeeping measures are in place to ensure that salt spilled during transfer is returned to the covered storage pile.

7.2.3.2.7 Training and Education (MSGP Part 2.1.2.8)

As discussed further in **Section 5.0**, Westover ARB has implemented a storm water training program to teach personnel the components and goals of the SWPPP.

7.2.3.2.8 Minimize Generation of Dust and Off-Site Tracking of Materials (MSGP Part 2.1.2.10)

BMPs to minimize generation of dust and off-site tracking of raw, final, or waste materials are implemented throughout the installation. Raw, final, or waste materials are prevented from tracking or blowing by covering outdoor storage areas with a permanent roof or temporary cover, which helps to prevent contact with storm water. Vehicle and aircraft washing areas are covered and drainage is directed to a sanitary sewer. Construction projects are required to implement BMPs to minimize generation of dust and off-site tracking of materials as described further below under **Section 7.2.4.4**.

7.2.3.2.9 Prohibition of Industrial Activities Outside of Designated Areas

Certain activities related to vehicle, aircraft, and equipment maintenance must not be conducted outside areas designated for such activities. The areas that are designated for such activities must be designed and managed to properly accommodate these activities without contributing to storm water contamination. These activities include the following:

- Aircraft deicing;
- Vehicle, aircraft, and equipment washing;
- Vehicle, aircraft, and equipment fueling;
- Vehicle, aircraft, and equipment maintenance and painting; and,
- Storage of chemicals outside.

The prohibition of these activities outside of designated areas will be communicated to installation personnel through their respective Shop supervisors. Furthermore, the visual inspections will look for evidence of these activities in non-designated areas.

7.2.3.2.10 Inspections (MSGP Part 3.0)

Visual inspections of equipment and areas at each industrial facility are required to determine if the pollution prevention BMPs are adequate to protect storm water from release of contaminants. Westover ARB conducts a series of preventive maintenance, quarterly visual, and annual comprehensive site inspections. A description of the routine inspections is presented in **Section 7.4**. Logs of each inspection are used to guide the inspection process and keep a record of the findings of the inspection.

7.2.4 Site-Specific BMPs

Site-Specific BMPs are designed to prevent contaminants from specific sources from polluting storm water. The site-specific BMPs presented below may apply to individual or several individual RIAPs. For example, integrity testing is required for RIAPs with aboveground storage tanks subject to 40 CFR Part 112. Site-specific BMPs applicable to each RIAP are described in the RIAP Forms in **Appendix D**.

7.2.4.1 Oil/Water Separators

Oil/water separators (OWSs) are storm water control devices used to remove oil, grease, fuel, and other floatable materials, which are among the most common storm water contaminants. The sizing and design of OWSs determines to what extent the units can remove contaminants. OWSs can act as treatment devices removing oils and fuels from intermittent flows of storm water and they can act as diversion devices for spills of oils and fuels.

OWSs have been installed at Westover ARB as structural BMPs to reduce the potential for storm water discharges to contain oil. Each such storm water OWS is inspected at least quarterly to ensure proper function and to measure the oil and sediment/sludge that has accumulated in the unit. OWSs are thoroughly cleaned as needed based on these inspections.

Just upstream of Outfall 001, a diversion weir inside a manhole directs storm water flow to a concrete open-top OWS, which has a total capacity of 70,000 gallons and an oil storage capacity of 34,000 gallons. Peak storm water flow can bypass the diversion weir and discharge directly into Cooley Brook. The OWS typically captures the first flush of storm water runoff, which may contain the highest concentration of contaminants. The effluent from the OWS at Outfall 001 discharges to a submerged-flow wetland

treatment system, discussed further in **Section 7.2.4.5**.

Just upstream of Outfall 002, a diversion weir inside a manhole directs storm water flow to a concrete open-top OWS, which has a total capacity of 44,000 gallons and an oil storage capacity of 24,000 gallons. Peak storm water flow can bypass the diversion weir and discharge directly into Cooley Brook. The OWS typically captures the first flush of storm water runoff, which may contain the highest concentration of contaminants.

7.2.4.2 Integrity Testing

Integrity testing of tanks, piping, and valves occurs regularly. ASTs with secondary containment are integrity tested in accordance with 40 CFR Part 112 and the Westover ARB SPCC Plan.

7.2.4.3 Run-on Prevention

One of the more effective mechanisms to preventing storm water pollution is to minimize the amount of storm water that can contact areas of industrial activity. The civilian gas station fueling area is located at a high point to prevent run-on (see RIAP 5425 in **Appendix D**).

7.2.4.4 Construction Projects and Areas with High Soil Erosion Potential (MSGP Part 1.1.3.2)

Storm water discharges associated with construction activity disturbing one acre or more, or that are part of a larger common plan of development or sale if the larger common plan will ultimately disturb one acre or more, are not eligible for coverage under the MSGP. Instead, these projects require coverage under a *Construction General Storm Water Permit*. Storm water pollution prevention practices for smaller projects are implemented at the installation-level and may require control measures to prevent sediment or erosion from the site.

7.2.4.5 Aircraft and Pavement Deicing (MSGP Part 8.S.4.1.6 and MSGP Part 8.S.4.1.6-7)

The application of deicing fluids to aircraft during conditions of snow and freezing rain generates storm water runoff laden with deicing fluids. The minimization and control of deicing fluid runoff is an important facet of the SWPPP. The primary environmental concern regarding deicing fluid is the effect it has on surface water quality. Deicing chemicals, because of their organic nature, exert a high BOD on receiving streams, which depletes oxygen levels necessary to sustain aquatic life. In addition, these deicing compounds can also be toxic to aquatic organisms.

Deicing season at Westover ARB typically runs from December to April each year. In rare cases, deicing can be conducted outside these months based on weather conditions. Facilities which conduct deicing/anti-icing operations are required to maintain a record of the types and monthly usage of deicing/anti-icing chemicals used.

Westover ARB uses propylene glycol fluid for aircraft deicing, which is typically conducted only at designated locations at the East Ramp that discharge to Outfall 001, which contains a submerged-flow wetland treatment system that was constructed in July 2002. The wetland treatment system provides additional biological treatment to reduce the impact of deicing fluid on Cooley Brook. Although not used frequently for treatment of aircraft deicing/anti-icing fluid, due to the readily biodegradable nature of organic contaminants like glycol, constructed wetlands may be used as a biological treatment method to reduce the concentration of BOD in storm water runoff discharged directly to surface waters.

Westover ARB uses a non-triazole-based propylene glycol, which is less toxic than previous formulations of propylene glycol. The propylene glycol is diluted to 60/40 percent with water prior to application. Deicing fluid is further diluted when mixed with precipitation and snowmelt runoff. During the 2020-2021 deicing season, Westover ARB used 13,080 gallons of glycol (undiluted). Deicing fluid quantities are provided by 439th Aircraft Maintenance Squadron (439 AMXS).

Westover ARB implements several BMPs to reduce storm water contamination from aircraft deicing. These are shown in **Table 7-3**.

Table 7-3
BMPs for Minimizing Deicing Fluid Runoff from Aircraft Deicing

- When icing conditions are anticipated, aircraft that are on the flying schedule are moved to the Pull Through Hangar or Fuel Cell, if possible. They are towed out just before flight to negate/minimize deicing requirements.
- Limit non-essential flights during icing conditions, if possible.
- During the months when winter conditions exist, aircraft are placed into a "winter configuration" (flaps and slats retracted, horizontal stab angled up: lessens the accumulation impact of snow and ice).
- To the extent practicable, aircraft launches are scheduled later in the day, thus allowing for natural deicing of the aircraft through radiant energy from the sun and wind.
- Mandated annual refresher training for the deice crews, this ensures that the minimum amount of deicing fluid is used to safely prepare an aircraft for flight or maintenance.
- Deice only those aircraft that require it for flight/maintenance, aircraft are never deiced just to remove accumulation. If the situation permits, partial deicing is accomplished when deemed sufficient to accomplish the maintenance task at hand.
- Use of new GlobeMaster deicing trucks. Features include: boom spray operator position is environmentally enclosed, metered and more accurate spray nozzles, fluid heating capabilities; all these features allow for more effective and efficient aircraft deicing.
- Use a 60/40 percent mixture of propylene glycol and water.
- Conduct monthly visual inspections of deicing areas and deicing equipment, ensures there are not any inadvertent vehicle leaks. Vehicle inspections are conducted all year long, not just during deicing months.

Westover ARB does not use urea pellets for deicing/anti-icing of aprons, taxiways, or runways. Westover ARB uses potassium acetate (liquid) and sodium acetate (granular) for pavement deicing/anti-icing. Potassium acetate prevents ice formation on the surface of the aprons, taxiways, and runways. It has a lower BOD than urea and is non-toxic. During the 2020-2021 deicing season, Westover ARB used 46 tons of sodium acetate and 28,600 gallons of potassium acetate. Westover Contractors, Roads, and Grounds crew provides monthly deicing and anti-icing use records.

Westover ARB implements several BMPs to reduce storm water contamination from airfield deicing/anti-icing applications. These are shown in **Table 7-4**.

Table 7-4
BMPs for Minimizing Deicing Fluid Runoff from Runway and Apron Deicing

<ul style="list-style-type: none"> • Only areas necessary for flight operations are deiced using chemical methods, such as runways, taxiways, and flightline aprons. • Use of weather forecasting to postpone non-essential flight operations to minimize use of deicing chemical application. • Application of an anti-icing mixture to runway areas helps minimize the amount of deicing chemicals that need to be applied after icing occurs; less chemical is needed to prevent ice formation than it is to remove (melt) ice already there. • Closely observe chemical usage on chemical application equipment to help prevent over application. • Train deicing applicators in proper application methods to prevent overuse of deicing chemicals. • Pre-wetting granular deicing chemicals to maximize effectiveness and minimize quantities needed. • Use of snow brooms and plows to remove ice instead of chemical applications. • Snow removal is continuous during a storm and accumulated snow is piled away from contact with deicing chemicals.
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7.2.4.6 Aircraft and Vehicle Washing (MSGP Part 8.S.5.3)

The MSGP prohibits non-storm water discharges of vehicle and aircraft wash water from entering surface waters. Wash waters contain high concentrations of oil and grease, suspended solids, and detergents that exhibit a high dissolved oxygen demand on receiving waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge. All vehicle and aircraft washing must occur in designated areas. **Table 7-5** presents a list of approved wash racks at Westover ARB. These wash racks are piped to the sanitary sewer, have a roof, or are located indoors to minimize the amount of precipitation that is allowed to enter the sanitary sewer system.

Table 7-5
Approved Wash Racks at WARB

Building Number or Location	Description of Wash Rack Operation
1530 – Vehicle Wash Rack	Wash rack for vehicles. Floor drains inside building discharge to an oil/water separator and sanitary sewer.
3101 – Army Reserves Center (AMSA Vehicle Maintenance)	Wash rack for vehicles. Trench drains inside building discharge to an oil/water separator and sanitary sewer.
3505 – U.S. Marine Corps Reserves Training Center	Wash rack for vehicles and equipment. Concrete floors slope to a central drain and a canopy prevents most storm water infiltration. Drains only to sanitary sewer.
7040 – Pull-Through Hangar, Corrosion Control	Wash rack for aircraft. Trench drains inside building discharge to an oil/water separator where the water is tested and released to sanitary sewer.
7071 – Hangar 9 – AGE (South) and AMXS (North)	Wash rack for aircraft ground equipment. Floor and trench drains inside building discharge to an oil/water separator and sanitary sewer.
7073 – Hangar 5 – Roads and Grounds Shops	Hand-washing of vehicles and equipment. Floor drains inside building discharge to an oil/water separator and sanitary sewer.
7084 – Fire Department	Wash rack for fire trucks. Floor drains inside wash rack are plumbed to an oil/water separator and sanitary sewer.

7.3 Schedules and Procedures for Monitoring

The installation implements procedures for conducting the following types of monitoring, as necessary:

- Benchmark monitoring
- Effluent limitations guidelines monitoring
- State or Tribal specific monitoring
- Impaired waters monitoring
- Other monitoring as required

At a minimum, procedures describe:

- Locations where samples are collected
- Pollutant parameters sampled
- Monitoring schedules
- Numeric limits, where applicable
- Sample collection and analysis

Monitoring procedures are documented in the installation supplement below.

Installation Supplement – Schedules and Procedures for Monitoring

7.3.1 Monitoring Procedures (MSGP Part 4.1)

7.3.1.1 Monitoring Schedule (MSGP Part 4.1.7)

Monitoring requirements begin in the first full quarter following the latter of:

- May 30, 2021; or,
- the date of discharge authorization (coverage) under the 2021 MSGP.

Full quarters are defined by the following dates:

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

Coverage under the 2021 MSGP is expected to be obtained prior to July 1, 2021. Therefore, Year 1 of MSGP coverage begins July 1, 2021 and the first quarter for benchmark monitoring is July 1, 2021 – September 30, 2021 and the first year for impaired waters or effluent limitation monitoring is July 1, 2021 – June 30, 2022.

A summary of the storm water monitoring schedule for Westover ARB is provided in **Table 7-6**. This monitoring schedule may be modified in accordance with MSGP Part 4.1.6 if the revised schedule is documented in the SWPPP. However, any monitoring quarter where samples were not taken must be indicated in Net-DMR.

**Table 7-6
Monitoring Summary**

Monitoring Type	Applicability	Frequency	Sample Collection Location	Parameter(s)
Indicator Monitoring for Sector S; Polycyclic Aromatic Hydrocarbons (PAH)	Applicable to any Sector S facility.	Two times per year during Year 1 and Year 4 of MSGP coverage	All outfalls (only one from each substantially identical discharge point)	16 individual PAH compounds identified at Appendix A to 40 CFR Part 423
Benchmark Monitoring for Sector S	Not currently applicable unless at least 100,000 gallons of pure glycol in glycol-based deicing fluids is discharged in a year.	Four times per year during Year 1 and Year 4 of MSGP coverage	Outfalls that discharge storm water from areas where deicing activities occur.	BOD; COD; Ammonia; pH
Impaired Waters Monitoring	Applicable to outfalls discharging to Willimansett Brook and Stony Brook.	One time per year during Year 1 and Year 4 of MSGP coverage	Outfalls that discharge to impaired waters (only one from each substantially identical discharge point)	Willimansett Brook: <i>E. coli</i> bacteria Stony Brook: TSS and <i>E. coli</i>
Effluent Limits Monitoring for Sector S	Not currently applicable unless urea is used for airfield pavement deicing.	One time during every year of MSGP coverage	Outfalls that discharge storm water from areas where urea is used.	Ammonia as nitrogen, 14.7 milligrams per liter (mg/L), daily maximum

7.3.1.2 Sample Collection (MSGP Part 4.1.3 and MSGP Part 4.1.4)

Monitoring samples must be collected during a storm event that results in an actual discharge (“measurable storm event”) that follows the preceding measurable storm event by at least 72 hours. The 72-hour storm interval does not apply if you are able to document that less than a 72-hour interval is representative for local storm events during the sampling period. In the case of snowmelt, you must conduct monitoring at a time when a measurable discharge occurs.

For each monitoring event, except snowmelt monitoring, you must identify the date and duration (in hours) of the rainfall event, rainfall total (in inches) for that rainfall event, and time (in days) since the previous measurable storm event. For snowmelt monitoring, you must identify the date of the sampling event.

All required monitoring must be conducted in accordance with the procedures described in MSGP Part B.10. If more than one type of monitoring for the same pollutant at the same outfall applies, a single sample may be used to satisfy both monitoring requirements.

A minimum of one grab sample must be collected within the first 30 minutes of a discharge resulting from a measurable storm event. If it is not possible to collect the sample within the first 30 minutes of a measurable storm event, the sample must be collected as soon as possible after the first 30 minutes and documentation explaining why it was not possible to take samples within the first 30 minutes must be kept with the SWPPP. In the case of snowmelt, samples must be collected during a period with a measurable discharge.

For indicator monitoring and benchmark monitoring, composite sample methods may be used instead of grab samples. Composite sample methods may be either flow-weighted or time-weighted and performed manually or with the use of automated sampling equipment. Additional detail on composite sampling is

provided in MSGP Part 4.1.4.

All monitoring must be made:

- Of a sample in a clean, colorless glass or plastic container, and examined in a well-lit area;
- On samples collected within the first 30 minutes of an actual discharge from a storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and it must be documented why it was not possible to take the sample within the first 30 minutes. In the case of snowmelt, samples must be taken during a period with a measurable discharge from the base; and,
- For storm events, on discharges that occur at least 72 hours from the previous discharge. The 72-hour storm interval does not apply if you document that less than a 72-hour interval is representative for local storm events during the sampling period.

7.3.1.3 Indicator Monitoring (MSGP Part 4.2.1)

Indicator monitoring data provides 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 for indicator monitoring. Indicator monitoring is report-only and is neither benchmark monitoring nor an effluent limitation.

Westover ARB must perform indicator monitoring of stormwater discharges for Sector S. This includes bi-annual monitoring for PAH during the first and fourth years of permit coverage.

Samples must be analyzed using EPA Method 625.1 or EPA Method 610/Standard Method 6440B, consistent with 40 CFR Part 136 analytical methods. Analysis must include the 16 individual priority pollutants identified in Appendix A to 40 CFR Part 423:

- | | | |
|-------------------|-------------------------|----------------------------|
| • Naphthalene; | • Fluoranthene; | • Benzo[a]pyrene; |
| • Acenaphthylene; | • Pyrene; | • Benzo[g,h,i]perylene; |
| • Acenaphthene; | • Benzo[a]anthracene; | • Indeno[1,2,3-c,d]pyrene; |
| • Fluorene; | • Chrysene; | • Dibenz[a,h]anthracene. |
| • Phenanthrene; | • Benzo[b]fluoranthene; | |
| • Anthracene; | • Benzo[k]fluoranthene; | |

7.3.1.4 Benchmark Monitoring (MSGP Part 4.2.2)

Benchmark monitoring of stormwater discharges is required for Sector S facilities if they discharge at least 100,000 gallons of pure glycol in glycol-based deicing fluids in a year. Westover ARB has not exceeded this threshold during any year while covered under the MSGP.

In the event that future deicing operations at Westover ARB trigger the requirement for benchmark monitoring, benchmark samples and any required follow-up benchmark samples must be collected during the deicing season defined in MSGP Part 8.S.4.1.8 and when deicing activities are occurring. The benchmark monitoring requirements for Sector S are summarized in **Table 7-7**. At the discretion of Westover ARB, more than four samples may be taken during separate stormwater discharge events to determine the average benchmark parameter value for facility discharges.

Table 7-7
Sector S Benchmark Monitoring Requirements

Sector S	Parameter	Benchmark Monitoring Concentration
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 outfalls that collect runoff from areas where deicing activities occur (SIC 4512-4581).	BOD ₅	30 mg/L
	COD	120 mg/L
	Ammonia	2.14 mg/L
	pH	6.0 - 9.0 s.u.

Benchmark thresholds are not effluent limitations; therefore, a benchmark exceedance is not a permit violation. Benchmark monitoring data are primarily used to determine the overall effectiveness of stormwater control measures and to assist in determining when additional action may be necessary to comply with the effluent limitations in the MSGP Part 2.0. However, if a benchmark exceedance triggers Additional Implementation Measures in MSGP Part 5.2, failure to conduct any required measures is a permit violation.

7.3.1.5 Effluent Limitations Monitoring (MSGP Part 4.2.3 and MSGP Part 8.S.9)

As an existing airport, Westover ARB is required to certify annually during development of the annual report that it does not use pavement deicers containing urea. If urea-based deicers were being used on runway, apron, or taxiway surfaces, Westover ARB would be required to meet the effluent limitation of 14.7 mg/L of ammonia expressed as nitrogen. Westover does NOT use urea.

Because Westover ARB is an existing airport instead of a new airport, no effluent limitations for aircraft deicing are applicable.

7.3.1.6 Impaired Waters Monitoring (MSGP Part 4.2.5)

Stony Brook, which is the receiving water body for Outfall 011, is classified as an Impaired Waterway with the pollutants of concern being non-native aquatic plants, turbidity, and *E. coli* bacteria. Based on these impairments, EPA requires TMDLs from the States. However, the State has not yet established them for Stony Brook. As a result, Westover ARB is required to monitor for TSS and *E. coli* annually from Outfall 011 under the 2021 MSGP.

Willimansett Brook, which is the receiving water body for Outfall 004, is classified as an Impaired Waterway with the pollutant of concern being *E. coli* bacteria. Based on the impairment, EPA requires TMDLs from the States. However, the State has not yet established them for Willimansett Brook. As a result, Westover ARB is required to monitor for *E. coli* annually from Outfall 004 under the 2021 MSGP.

If a pollutant is detected during monitoring, sampling must occur every subsequent year of coverage under the MSGP. If the water quality standards are exceeded, Westover ARB must initiate corrective actions in accordance with MSGP Part 5.0. If monitoring results indicate the monitored pollutant is not detected or is within the acceptable range for a given parameter, monitoring may be discontinued for that pollutant until Year Four, per MSGP Part 4.2.5.1.a.ii.

Results of impaired waters monitoring are provided in **Appendix T**. These results must be compared to

the water quality standards for the Connecticut River, since all receiving waters are within the Connecticut River watershed. According to Table 6 in 314 Code of Massachusetts Regulations (CMR) 4.06, the Connecticut River is classified as a Class B Surface Water. According to 314 CMR 4.05, Class B Inland Surface Waters must meet the following criteria for bacteria and turbidity:

- The geometric mean of all *E. coli* samples taken within the most recent six months shall not exceed 126 colonies per 100 milliliters (ml) based on a minimum of five samples, and no single sample shall exceed 235 colonies per 100 ml.
- No single TSS sample shall exceed 100 mg/L.
- Be free from color and turbidity in concentrations or combinations that are aesthetically objectionable or would impair any use assigned to this class.
- Be free from floating, suspended and settleable solids in concentrations and combinations that would impair any use, that would cause aesthetically objectionable conditions, or that would impair the benthic biota or degrade the chemical composition of the bottom

7.3.1.7 Other monitoring as required by EPA (MSGP Part 4.2.6)

No additional monitoring has been requested by EPA at this time.

7.3.2 Sampling for Prior MSGP Versions (MSGP Part 4.2.6)

7.3.2.1 Sampling during 2008 MSGP

During the first sampling event in April 2009, the TSS levels were found to be either non-detect or below reportable limits at the regulated outfalls. Pursuant to Part 6.2.4.2 of the 2008 MSGP, the Base was no longer required to monitor TSS during the remainder of the permit coverage period. The Base conducted *E. coli* monitoring from 2009 until 2012 at Outfalls 005, 011, 011a. During the 2013 Annual Third-Party Evaluation, a review of available sampling data collected by Westover ARB and historical monitoring data from Stony Brook was conducted by EA Engineering, Science, and Technology, Inc., PBC (EA). It was determined that the Base was not a significant source of *E. coli* and any *E. coli* colonies present in the outfalls sampled was under the primary use recreational contact limit of 126 colonies/100ml and below the calculated geometric mean of 290 cfu/100ml presented in the Connecticut River Watershed 2003 WQ Assessment Report. The findings and determination were submitted to the EPA with the 2013 Discharge Monitoring Report, which is maintained at the Westover ARB Environmental Office.

Based on the 30 July 2013 results of this assessment, EA concluded that the most likely source of low levels of *E. coli* in the outfall runoff was due to naturally occurring background sources, such as raccoon, birds, beaver, squirrels, and fox and that Westover AFB was actively implementing BMPs to control *E. coli* sources from its industrial activities to the maximum extent practicable. It is unlikely that the industrial activities at Westover ARB directly result in *E. coli* contamination due to the types of activities conducted at Westover ARB (aircraft and vehicle maintenance). Besides animal sources on the installation, high levels of *E. coli* in Stony Brook could be “run-on” entering from off-base sources such as Wade Lake.

Sampling for *E. coli* must be conducted for each new issuance of the MSGP.

7.3.2.2 Sampling during 2015 MSGP

Samples collected in 2015 were below detection limits for TSS and *E. coli* concentrations of 180 and 200 colonies/100ml were slightly below the water quality standard of 235 colonies/100 ml. Sampling

conducted in 2016 revealed TSS to be non-detect, and *E. coli* to be 20 colonies/100ml, which is below the water quality standard of 235 colonies/100 ml. Sampling conducted in 2018 revealed TSS to be non-detect and within the water quality standard. The determination was made to not continue monitoring for TSS and *E. coli* at Outfall 011 during the 2015 MSGP.

7.4 Inspections

The installation implements procedures for conducting the following types of inspections, as necessary:

- Routine facility inspections
- Quarterly visual assessment of storm water discharges
- Comprehensive site inspections

At a minimum, procedures include:

- Person(s) or position(s) responsible for inspection
- Schedules for conducting inspections
- Specific items to be covered by the inspection

All other inspections are conducted IAW AFI 90-201, *Air Force Inspection System* and the Commander's Self Inspection Program. Inspection procedures are documented in the Installation Supplement below.

Installation Supplement – Inspections

Inspections must be performed by personnel that are knowledgeable in the principles and practices of industrial storm water controls and pollution prevention and possess the education and ability to assess conditions at the industrial facility that could impact storm water quality and assess the effectiveness of storm water controls selected and installed to meet the requirements of the permit.

At least one member of the SWPPT must participate in the inspections.

7.4.1 Routine Facility Inspections (MSGP Part 3.1 and MSGP Part 8.S.6)

One of the objectives of the SWPPP is to minimize the risk that industrial areas (i.e., RIAPs) will contribute to storm water pollution. Routine inspections ensure that the risk factors associated with each industrial area are maintained at a low level through the use of BMPs. Routine inspections also include review and maintenance of other SWPPP items, such as the SWPPT and annual training.

Qualified personnel at Westover ARB conduct inspections at least quarterly to assess the effectiveness of the SWPPP and to ensure that areas with exposed pollutant sources are included in the SWPPP. Areas that must be inspected include:

- Areas where industrial materials or activities are exposed to stormwater;
- Areas identified in the SWPPP and those that are potential pollutant sources;
- Areas where spills and leaks have occurred in the past three years;
- Discharge points; and
- Control measures used to comply with the effluent limits contained in the MSGP.

Routine facility inspections may be documented using the *Industrial Facility Routine Stormwater Inspection Report* provided in **Appendix M**, or an equivalent report format. Inspection reports must include details of the following:

- The inspection date and time;
- The name(s) and signature(s) of the inspector(s);
- Weather information;
- All observations relating to the implementation of stormwater control measures at the facility, including:
 - A description of any stormwater discharges occurring at the time of the inspection;
 - Any previously unidentified stormwater discharges from and/or pollutants at the facility;
 - Any evidence of, or the potential for, pollutants entering the stormwater drainage system;
 - Observations regarding the physical condition of and around all stormwater discharge points, including any flow dissipation devices, and evidence of pollutants in discharges and/or the receiving water;
 - Any stormwater control measures needing maintenance, repairs, or replacement;
- Any additional stormwater control measures needed to comply with the permit requirements;
- Any incidents of noncompliance; and
- A statement, signed and certified in accordance with MSGP Appendix B, Subsection 11.

Industrial facilities with Sector S activities and areas where deicing occurs must be inspected at least monthly during the deicing season. If deicing occurs before or after this period, the inspections will be expanded to include all months during which deicing chemicals may be used.

At least one routine facility inspection each year must take place during a storm event. When an inspection is occurring during a storm water event or discharge, control measures implemented to comply with effluent limits must be observed to ensure they are functioning correctly. Discharge points must also be observed during storm conditions. If such discharge locations are inaccessible, nearby downstream locations must be inspected.

When funding is available, one of the quarterly inspections is conducted by a third-party inspector to help identify issues and share best practices implemented at other AFRC facilities. These evaluations, known as the Air Force Voluntary Third-Party Evaluation, are conducted as a voluntary self-audit and have resulted in recommendations for continued and improved compliance with the MSGP. These evaluations are not a permit requirement; it is above and beyond the required routine facility inspections.

7.4.2 Preventative Maintenance Inspections (*MSGP Part 2.1.2.3, MSGP Part 3.1, and MSGP Part 8.S.6*)

Westover ARB practices preventive maintenance at many levels to keep equipment and systems functioning normally. Preventive maintenance involves the regular inspection, testing, and maintenance of storm water management devices (e.g., cleaning OWSs, catch basins), equipment, and operational systems. These inspections should uncover conditions such as cracks or slow leaks that could cause breakdowns or failures that result in discharges of chemicals to storm sewers and surface waters. Currently, Westover ARB has an extensive preventive maintenance program. It involves inspections, inventories, and reports at various industrial areas at the installation (e.g., hazardous waste accumulation points, the Hazmart, and the Bulk Fuels Complex).

Although the preventive maintenance program described below was not necessarily developed with storm water pollution prevention as the purpose, it does an excellent job of addressing potential storm water pollution problems.

Per Facilities Ops maintenance program:

- Inspect OWSs quarterly for buildup of oils, fuels, and sediments;

- If the inspection finds cleaning of certain separators is needed, appropriate steps will be taken to clean the separators.

Per Air Force Technical Orders:

- Inspect pumps and piping for leaks or deterioration on a daily, weekly, and monthly basis at the Bulk Fuels Complex;
- Replace pump seals periodically to prevent sudden leaks.

Per Fuels Operations program:

- Perform monthly visual inspections of fuel tanks and piping to prevent ruptures and leaking
- Inspect all secondary containment structures for cracks, breaks, holes, and deterioration.

Per Hazardous Waste management program:

- Conduct regular inspections of hazardous waste accumulation areas;
- Document weekly inspections of the central hazardous waste accumulation area.

7.4.3 Quarterly Visual Assessment of Storm Water Discharges (*MSGP Part 3.2*)

The MSGP requires quarterly visual assessments of storm water samples from each outfall. Only one sample must be collected from substantially identical discharge points that are listed in **Section 1.3.1**. Samples must be collected “within the first 30 minutes of an actual discharge from a storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and you must document why it was not possible to take the sample within the first 30 minutes. In the case of snowmelt, samples must be taken during a period with a measurable discharge.” Storm events must occur at least 72 hours from the previous discharge. The 72-hour storm interval does not apply if you document that less than a 72-hour (three-day) interval is representative for local storm events during the sampling period.

A *Storm Water Outfall Visual Assessment Form* is provided in **Appendix L**.

Samples are not required to be sampled consistent with 40 CFR Part 136 procedures, but they must be collected in such a manner that the samples are representative of the storm water discharge.

Once collected, samples must be visually inspected for the following water quality characteristics:

- Color;
- Odor;
- Clarity (diminished);
- Floating solids;
- Settled solids;
- Suspended solids;
- Foam;
- Oil sheen; and,
- Other obvious indicators of storm water pollution.

Whenever the visual assessment shows evidence of storm water pollution, corrective action procedures described in MSGP Part 5.1.1 must be initiated.

The results of the visual assessments must be documented and maintained onsite with the SWPPP. Visual assessment findings are not required to be submitted to the EPA, unless specifically requested. However,

the findings do need to be summarized in the annual report, per MSGP Part 7.4.

To meet the requirement for quarterly visual assessments, Westover ARB collects samples from the following outfalls on a quarterly basis during qualifying storm events: Outfall 001, Outfall 002, Outfall 003, Outfall 004, Outfall 006, Outfall 007, Outfall 009a, and Outfall 011. Outfall 009a is located slightly upstream of Outfall 009 (see Site Map in **Appendix B**) and is representative of Outfall 009 because the area between Outfall 009 and Outfall 009a is all wooded and no industrial activities take place between the two points. Outfall 009a is used instead of Outfall 009 because the dirt road and wooded path to Outfall 009 are difficult to pass during rain events.

7.5 Documentation to Support Eligibility Considerations Under Other Laws

Where applicable, the installation maintains documentation supporting determination of eligibility under other federal laws (Endangered and Threatened Species and Critical Habitat Protection, Historic Properties Preservation and/or National Environmental Policy Act [NEPA]) or host nation laws separately from this SWPPP. Such documentation is available through the References section or as appendices below.

Installation Supplement – Documentation to Support Eligibility

7.5.1 Threatened and Endangered Species (MSGP Part 1.1.4)

The MSGP requires Westover ARB to certify eligibility under this permit by ensuring that the storm water discharges, allowable non-storm water discharges, and discharge-related activities are not likely to jeopardize the continued existence of any species that are listed as endangered or threatened under the Endangered Species Act. A certification statement and county-species list must be included in the SWPPP, along with supporting documentation on the eligibility determination.

The U.S. Fish and Wildlife Service and the Massachusetts Natural History and Endangered Species Program (MNHESP) were contacted during development of the Westover ARB Fish and Wildlife/Threatened and Endangered Species Management Plan (SEA 1999), which contains specific information regarding the threatened and endangered species in the geographic area of Westover ARB. MNHESP completed several surveys in 1995 to confirm the presence or absence of federally-listed endangered, threatened, or candidate plant and animal species at Westover ARB. No federally-listed plant or animal species were identified as inhabiting Westover ARB during the surveys.

A bat acoustic study, which included the Northern Long-eared Bat, was conducted by University of Montana at Westover ARB in June 2017. The study found no presence of the Northern Long-eared Bat at Westover ARB. Subsequently, Westover ARB processed a Streamlined Consultation form with the U.S. Fish and Wildlife Service.

Westover ARB consults with both the U.S. Fish and Wildlife Service and the Massachusetts Division of Fisheries and Wildlife on the Westover ARB Integrated Natural Resources Management Plan, which covers both Wetland Protection and the Management of Threatened and Endangered Species and Habitats.

Criterion A of MSGP has been satisfied, which certifies that, "...No endangered or threatened species or critical habitats are in the proximity to the facility or the point where authorized discharges reach the receiving waters..."

7.5.2 National Historic Places Protection Certification (*MSGP Part 1.1.5 and MSGP Appendix F*)

The MSGP requires Westover ARB to certify eligibility under this permit by ensuring that the storm water discharges, allowable non-storm water discharges, and discharge-related activities are not likely to affect a property that is either listed or eligible for listing on the National Register of Historic Places. A certification statement must be included in the SWPPP.

No facilities at Westover ARB are listed on the National Register Information System. According to Environmental Engineering personnel at Westover ARB, no facilities affected by storm water discharges or BMPs are eligible or are planned for listing on the National Register of Historic Places in the near future. Therefore, Criterion A of MSGP has been satisfied, which certifies that, "...the storm water discharges, allowable non-storm water discharges, and discharge-related activities do not affect a property that is listed or is eligible for listing on the National Register of Historic Places as maintained by the Secretary of the Interior...".

8.0 REFERENCES

Standard References

(Applicable to all AF Installations)

[Federal Water Pollution Control Act \(Clean Water Act\)](#)

[AFI 32-1067, Water and Fuel Systems](#)

[AFI 32-1002, Snow and Ice Control](#)

[AFI 32-7001, Environmental Management](#)

[AFI 90-201, Air force Inspections System](#)

[Water Quality Program Management Playbook](#)

[AFLOA Water Quality Legal and Other Requirements](#)

[eDASH Water Quality Program Page](#)

[eDASH Training Matrix](#)

[ADLS](#)

EASIER

Water Enterprise Tracker

Installation References

EPA NPDES eReporting Tool (NeT): <https://cdxnodengn.epa.gov/net-msgp/action/login>

National Park Service National Register Information System: www.nps.gov/subjects/nationalregister/

Westover ARB Spill Prevention and Countermeasure Control (SPCC) Plan

Westover ARB Integrated Natural Resources Management Plan

Westover ARB Fish and Wildlife/Threatened and Endangered (F&W/T&E) Species Management Plan

9.0 ACRONYMS

Standard Acronyms

(Applicable to all AF Installations)

[eDASH Acronym Library](#)

[Water Quality Playbook Acronym Section](#)

[U.S. EPA Terms and Acronyms](#)

Installation Acronyms

AFRC	Air Force Reserve Command
ARB	Air Reserve Base
AW	Airlift Wing
CMR	Code of Massachusetts Regulations
EA	EA Engineering, Science, & Technology, Inc., PBC
MassDEP	Massachusetts Department of Environmental Protection
MNHESP	Massachusetts Natural History and Endangered Species Program
NeT	NPDES eReporting Tool
SPCC	Spill Prevention, Control, and Countermeasures
WMDC	Westover Metropolitan Development Corporation

10.0 DEFINITIONS

[Water Quality Playbook Definition Section](#)

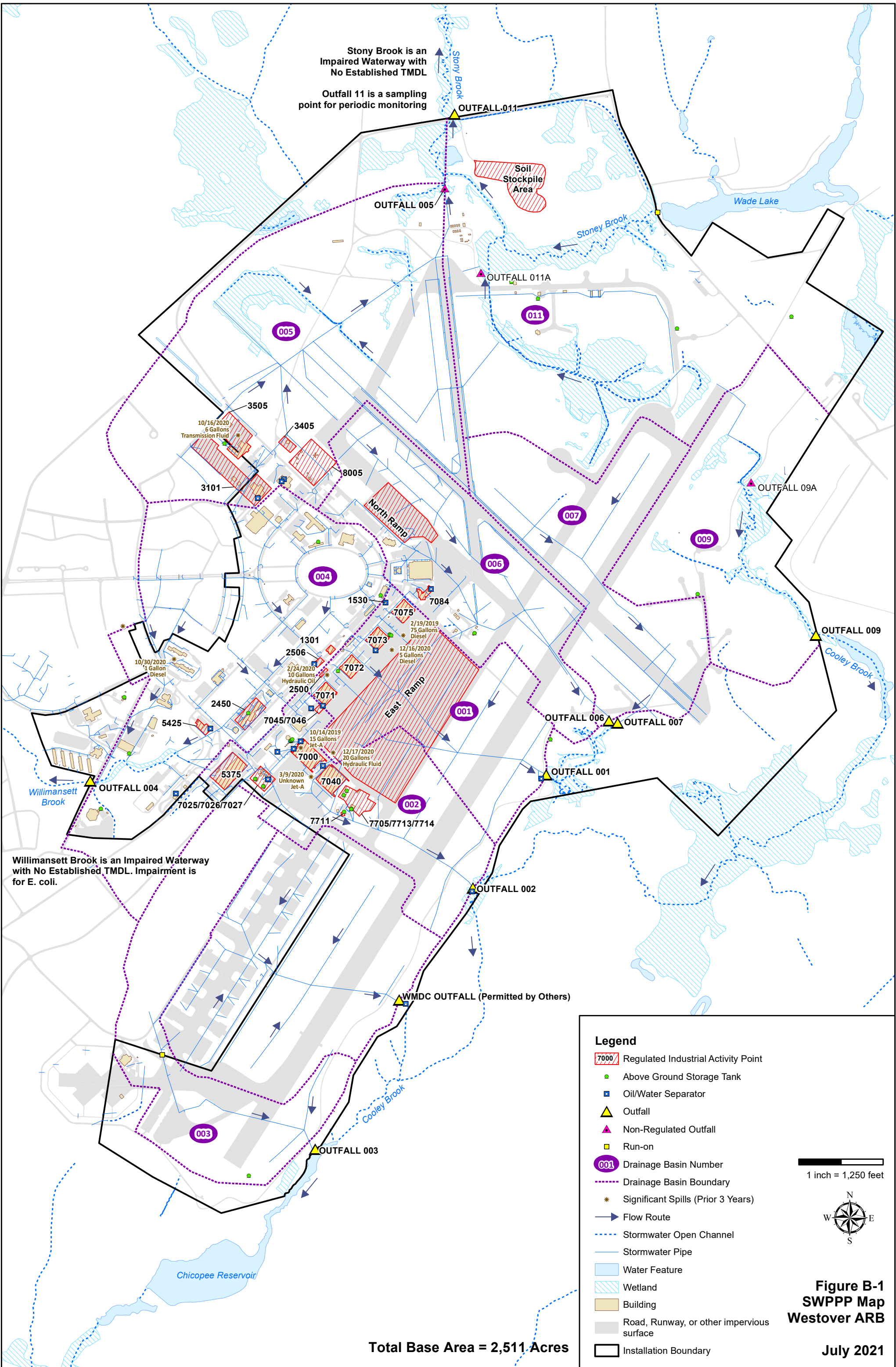
Appendix A: Significant Spills

DATE	LOCATION	SPILL DESCRIPTION	PREVENTATIVE ACTIONS
12/17/2020	Building 7000	20 gallons of hydraulic fluid leaked from a deicing truck hydraulic system due to a sudden system failure. Spill was contained on site.	Used vermiculite and absorbent pads to contain the spill. Pads and vermiculite were left on scene for the offending organization to dispose of.
12/16/2020	Flightline side of Hangar 5	5 gallons of fuel leaked from the fuel tank of parked dump truck used by Roads and Grounds group in Hangar 5.	Speedy dry absorbent was used by personnel from the Roads and Grounds group to clean up the pavement where the spill occurred.
10/30/2020	Building 2200	1 gallon of fuel leaked from the hydraulic system of a contractor-owned semi-truck that was pumping heating oil out of a tank.	Equipment causing the leak was turned off. Contractor cleaned up all contaminated material and took it with them for disposal.
10/16/2020	Building 3505, Marine Reserves	6 gallons of transmission fluid from and equipment failure	Fluid was contained in the vicinity of the spill and cleaned up using absorbent materials.
3/9/2020	PIG signal indicator behind building 7000	PIG Signal Fuel Leak	The spill was reported to MA DEP and was cleaned up according to rules and regulations. Jewel Env Corp was the hired LSP who oversaw the site cleanup.
2/24/2020	Generator Storage Yard– Near Bldg. HAZMAT Pharmacy	10 gallons of hydraulic fluid spilled after a hydraulic line let go on a dump truck.	Speedy dry had been applied to the area and two storm drains had booms placed around them. One drain had fluid in it and Mr. Cody stated that it went to Outfall 002 and would be contained on base. The spill was reported to MA DEP and Jewel Env Co Corp was the hired LSP that oversaw cleanup
10/14/2019	7000 ISO Dock– Near Bldg. 7001 Pump House	15 gallons of aircraft fuel spilled from the #1 and #3 engines. The fuel flow had been stopped by the T-handle activation, so the fuel seen leaking was what remained in the system, residual.	Absorbent pads were placed on the spill area that measured 25ft x 25ft. Pigs were also placed in the trough area under the maintenance stand which contained approximately 2 gallons of fuel. Air monitoring showed no LEL and low VOC. The building was ventilated using the overhead doors. Approximately 10 to 12 gallons of fuel is estimated to have spilled with none of it reaching any drains in the hanger.

2/19/2019	East Ramp – Near Bldgs. 7073 and 7075	75 gallons of diesel fuel spilled from the fuel tank of a snow plow after the fuel system was damaged during snow removal activities.	Speedy-dry absorbent was placed over the spill area to contain the released fuel. Four 55-gallon drums of spent absorbents. Fuel was pumped from two impacted catch basins and the oil water separator which services the area. 623 gallons of oily water were transported, under uniform hazardous waste manifest, to Clean Water of NY in Staten Island, NY for disposal. The four drums of solids were transported, under uniform hazardous waste manifest, to Veolia ES Technical Solutions in W Carrollton, OH, for proper disposal. On February 25, 2019, Jewel Environmental Corp. personnel conducted a site inspection of the release area. Very slight staining remained on the East Ramp near building 7073. Other than slight staining no overt evidence of remaining diesel fuel remained. According to response personnel, all fuel was contained to the catch basin system and captured during remediation.
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Source: Westover ARB Fire Department Spill Report Files, March 2021

Appendix B: Site Map



Appendix C: Employee Training Records

Organization	Training Date
Maintenance Group	- Dates maintained at MXG Office-
BOS Contractor	- Dates maintained at Contractor's Office -

Appendix D: RIAP Forms

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

2 March 2021

Building Number or Location:

1301

Description:

HAZMAT Pharmacy/Hazardous Waste Storage

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- Various-sized containers of hazardous materials (received at the loading dock). Hazardous materials stored in berm-controlled rooms, with the exception of the Pharmacy Storage – BOS Contractor room.
- 55-gallon drums of oil, AFFF, and high expansion foam were stored in the Pharmacy Storage – BOS Contractor room.
- Battery room has virgin petroleum, oils, and lubricants (POLs) on spill pallets.

Likelihood of Storm Water Contamination:

- Loading dock is not located near a storm sewer inlet.
- All hazardous materials are stored inside.
- The storage areas are bermed and all floor drains have been plugged.
- No drains or sumps in the building.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- No immediate storm water entry points of concern; a spill from the loading dock would flow over asphalt 300 feet north to a storm sewer inlet in the street.
- Located in Drainage Basin 004 and drains to Outfall 004.

General BMPs in Place:

- ☐ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☒ Inspections
- ☐ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☒ Secondary Containment
- ☒ Training
- ☒ Waste, Garbage, and Floatable Debris
- ☐ Prohibition of Industrial Activities Outside of Designated Areas
- ☐ Minimize Dust and Off-Site Material Tracking
- ☐ Minimize Exposure

Site-Specific BMPs in Place:

- Concrete berm at the entrances to the Pharmacy Storage – BOS Contractor room provides containment for this building.
- Absorbent material and booms are located inside the building by the loading dock doors. Additionally, a complete spill kit is located in the interior of the building.

Suggested BMPs: None.

Other Information:

- None.

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

1 March 2021

Building Number or Location:

1530

Description:

Vehicle Wash Rack

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- No hazardous materials that could contact storm water; all industrial activities are performed inside.
- Vehicle washing is performed inside this building; no activities are performed outside.

Likelihood of Storm Water Contamination:

- Vehicle washing is performed inside this building; no activities are performed outside.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Floor and trench drains in this building discharge vehicle wash water to an aboveground oil/water separator (OWS) that discharges to the sanitary sewer.
- Located in Drainage Basin 001 and drains to Outfall 001.

General BMPs in Place:

- ☐ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☒ Inspections
- ☒ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☒ Secondary Containment
- ☒ Training
- ☒ Waste, Garbage, and Floatable Debris
- ☐ Prohibition of Industrial Activities Outside of Designated Areas
- ☐ Minimize Dust and Off-Site Material Tracking
- ☐ Minimize Exposure

Site-Specific BMPs in Place:

- Prohibition of outdoor vehicle washing activities.
- No refueling tankers allowed in building.
- Interior floor is sloped and has drains which connect to an OWS and discharges to sanitary sewer.

Suggested BMPs: None.

Other Information:

- None.

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

2 March 2021

Building Number or Location:

2450

Description:

CE Maintenance Shops

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- Small containers (less than five gallons) of paints, empty gas cans, oils, insect sprays (inside building).
- Vehicle fluids (from vehicles and heavy equipment in long-term parking area).
- Underground storage tank (UST) in the parking lot (10,000-gallon diesel tank).
- Generator and 100-gallon double-walled diesel tank in the lot near the building on concrete pads.
- Containers of paint, hazardous waste, and refrigerants are kept in two locked HAZMAT storage sheds, which provide secondary containment (located outside).
- Carpentry Shop – (2) Flammables Lockers (paints, adhesive, primer, mineral spirits).
- HVAC Shop – (2) Flammables Lockers (POLs, glue, grease, etc.).
- Plumbing Shop – (1) Flammables Locker (paints, oil, bleach), one (1) oily rags accumulation bin.
- CE warehouse – (4) Flammables Lockers with 5-gallon containers (paints, adhesives).

Likelihood of Storm Water Contamination:

- No floor drains in shops.
- Potential for leaks from vehicles and heavy equipment parked outside the northwest side of the building.
- Storm drains in parking lot north of building.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Runoff from long-term parking area at rear of the building flows northwest 30 feet over asphalt and grass to a storm drain in the street.
- Located in Drainage Basin 004 and drains to Outfall 004.

General BMPs in Place:

- ☐ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☒ Inspections
- ☒ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☒ Secondary Containment
- ☒ Training
- ☒ Waste, Garbage, and Floatable Debris
- ☐ Prohibition of Industrial Activities Outside of Designated Areas
- ☐ Minimize Dust and Off-Site Material Tracking
- ☐ Minimize Exposure

Site-Specific BMPs in Place:

- No floor drains in shops.
- Prohibition of outdoor vehicle washing.
- HAZMAT storage sheds provide a roof and secondary containment for hazardous waste and paints.

Suggested BMPs: None.

Other Information:

- None.

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

2 March 2021

Building Number or Location:

2500

Description:

Hangar Ave. Storage Area

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- Fuel, lubricant, grease, and miscellaneous oils from long-term storage of:
 - Generators
 - Transformers
 - Above ground storage tanks

Likelihood of Storm Water Contamination:

- Potential leaks from long term parking of generators, and transformers.
- Manual valve storm drains.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Bermed area that drains into a storm drain inlet with a manually operated valve normally kept in the closed position.
- Located in Drainage Basin 001 and drains to Outfall 001.

General BMPs in Place:

- ☐ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☒ Inspections
- ☐ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☒ Secondary Containment
- ☒ Training
- ☒ Waste, Garbage, and Floatable Debris
- ☐ Prohibition of Industrial Activities Outside of Designated Areas
- ☐ Minimize Dust and Off-Site Material Tracking
- ☐ Minimize Exposure

Site-Specific BMPs in Place:

- Concrete berms are sealed to provide containment for storage of fuel tanks.
- Containment area drainage valve is maintained in the closed position.

Suggested BMPs: None.

Other Information:

- None.

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

2 March 2021

Building Number or Location:

2506

Description:

Recycle Maintenance Yard

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- (4) Open roll-offs (1 wood, 1 metal, and 1 miscellaneous recyclable, 1 general refuse).
- (3) Trash compactors with small amounts of hydraulic fluid for cardboard, white paper, and trash.
- (1) HAZMAT storage shed of mercury lightbulbs.

Likelihood of Storm Water Contamination:

- Storm drain inlets located to the north of the recycle yard.
- Storm water drains into a manhole OWS in the northwest corner of the yard.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Runoff flows across yard to an OWS.

General BMPs in Place:

- ☐ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☒ Inspections
- ☐ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☐ Secondary Containment
- ☒ Training
- ☒ Waste, Garbage, and Floatable Debris
- ☐ Prohibition of Industrial Activities Outside of Designated Areas
- ☐ Minimize Dust and Off-Site Material Tracking
- ☐ Minimize Exposure

Site-Specific BMPs in Place:

- Facility is staffed by a dedicated contract employee during open hours. Facility is locked when closed.
- Site personnel review materials during drop-off to verify acceptability of materials.
- Mercury lightbulbs are stored in labeled boxes within the HAZMAT shed.
- OWS is inspected quarterly and cleaned as needed.
- Routinely inspect the area around the roll-off containers compactors for signs of staining or discharge of pollutants.

Suggested BMPs: None.

Other Information:

- None.

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

2 March 2021

Building Number or Location:

3101

Description:

Army Reserves Center Vehicle Maintenance Shop

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- Potential leaks from vehicles in parking lots surrounding the buildings, and generators stored outside next to cold storage building.
- Hazardous material rooms on the inside the north end of the building.
- Multiple POLs in dispensing area and used oil storage areas.
- Small equipment stored inside (forklift, floor sweeper, all-terrain vehicle, snow blower).
- Individual storage rooms for POLs, flammables, etc.
- Flammables lockers with cleaners and paints.
- 55-gallon drums of used oil, antifreeze, and diesel on spill pallets in shop.

Likelihood of Storm Water Contamination:

- Trench drains inside building go to an OWS then to sanitary sewer.
- Wash rack drain in Building 3506 goes to an OWS, then to sanitary sewer. In the winter, the wash rack houses generators that were formerly stored just outside of building.
- Water is turned off during winter months.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Runoff from parking area flows to proprietary storm drain units (Vortsentry) and subsequently to a leach field. Most rainwater expected to infiltrate to ground.
- Storm drains along Marine Way drain to Drainage Basin 005 and drain to Outfall 011. Drains along Eagle Drive flow to Drainage Basin 004 and drain to Outfall 004.
- Many storm drains are located in the vehicle storage area.

General BMPs in Place:

- ☐ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☒ Inspections
- ☒ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☐ Secondary Containment
- ☒ Training
- ☒ Waste, Garbage, and Floatable Debris
- ☐ Prohibition of Industrial Activities Outside of Designated Areas
- ☐ Minimize Dust and Off-Site Material Tracking
- ☐ Minimize Exposure

Site-Specific BMPs in Place:

- Floors of maintenance bay slope inward.
- Spill kits located in parking lots, maintenance room and wash rack.
- Drip Pan Use:
 - DEPLOYMENT: Use drip pan ONLY for leaking vehicles/equipment; drip pan not needed for non-leaking vehicles/equipment. After observing any leakage, immediately apply a drip pan.
 - MAINTENANCE: Take steps to prevent liquid overflow from drip pan. This means, in advance of precipitation, service any drip pans containing liquid by properly handling the liquid. If the liquid contains an oily sheen, odor, or other signs of contamination, then dispose of the drip pan contents into the proper Hazardous Waste drum OR contact Base Environmental for assistance. If the liquid has NO sheen/contaminants, then discharge into grassy area.
 - INSPECTIONS: Conduct frequent monitoring of deployed drip pans - visually inspect at least once per week.

Suggested BMPs: None.

Other Information: None

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

1 March 2021

Building Number or Location:

3405

Description:

Salt Storage Yard

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- Salt/sand pile enclosed by a building.
- Propane is stored in HAZMAT storage shed and a wooden shed.
- Equipment fluids (from long-term equipment parking).
- Scrap rusting metal and piping, empty plastic totes and trash cans.
- Uncovered rock and mulch piled outside.

Likelihood of Storm Water Contamination:

- Salt/sand pile is covered by a salt storage dome.
- Equipment is parked throughout the lot.
- Piles of mulch and stone contained by jersey barriers are uncovered.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Runoff flows north as sheet flow to a local low point in the grass.
- Located in Drainage Basin 005 and drains to Outfall 011.

General BMPs in Place:

- ☐ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☒ Inspections
- ☐ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☐ Secondary Containment
- ☒ Training
- ☒ Waste, Garbage, and Floatable Debris
- ☐ Prohibition of Industrial Activities Outside of Designated Areas
- ☐ Minimize Dust and Off-Site Material Tracking
- ☒ Minimize Exposure

Site-Specific BMPs in Place:

- Any salt that is spilled on the ground during loading/unloading is cleaned up immediately.
- Train personnel working in the salt storage area on the good housekeeping practices required for this area.
- Keep metal equipment indoors if possible. When metal equipment or materials become too rusty to use, properly dispose or turn in as scrap metal.
- The dome prevents precipitation from contacting salt pile.

Suggested BMPs: None.

Other Information:

- None.

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

1 March 2021

Building Number or Location:

3505

Description:

USMC Reserves Training Center

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- Vehicle and heavy equipment fluids (from long-term vehicle and equipment parking on south and east sides of the building) - Vehicles from both 472 and Mass 6 are parked onsite
- HAZMAT storage sheds contain batteries and small amounts of hazardous materials, transmission fluid, oil, hydraulic fluid, miscellaneous flammable materials, and corrosives.
- Flammables lockers contain various adhesives, lubricants, solvent, and paint.
- Various drums of POLs located indoors over a dead-end sump area.
- Indoor waste accumulation area provided with portable secondary containment for waste oil, antifreeze, and spill debris.
- Vehicle wash rack.
- Refueling truck parking area (see Other Information).
- Diesel generator located outside within a fenced area.
- Several 34-gallon diesel generators located on the west side of storage yard.

Likelihood of Storm Water Contamination:

- No floor drains inside maintenance bay.
- Potential for leaks from vehicles and heavy equipment parked on the north side of the building.
- Sediment from vehicle traffic through grassed areas adjacent to parking lot.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Runoff from south parking area flows over asphalt to storm sewer inlets in the area and drains into a detention basin.
- Runoff from east parking area flows immediately to several storm sewer inlets.
- Located in Drainage Basin 011 and drains to Outfall 011.

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WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION	
Building Number or Location: <p style="text-align: center;">3505</p>	Description: <p style="text-align: center;">USMC Reserves Training Center</p>
General BMPs in Place: <ul style="list-style-type: none"> <input type="checkbox"/> Erosion and Sediment Controls <input checked="" type="checkbox"/> Good Housekeeping <input checked="" type="checkbox"/> Inspections <input checked="" type="checkbox"/> Preventive Maintenance <input checked="" type="checkbox"/> Spill Prevention and Response <input type="checkbox"/> Secondary Containment <input checked="" type="checkbox"/> Training <input checked="" type="checkbox"/> Waste, Garbage, and Floatable Debris <input type="checkbox"/> Prohibition of Industrial Activities Outside of Designated Areas <input type="checkbox"/> Minimize Dust and Off-Site Material Tracking <input type="checkbox"/> Minimize Exposure 	Site-Specific BMPs in Place: <ul style="list-style-type: none"> • Spill kit inside maintenance bays and outside in equipment parking area. • Vehicle wash rack contains wash water in a sloped concrete pad that drains to an OWS and to sanitary sewer. • Refueling truck parking has concrete berms to contain spills. Floor drains within the berms are equipped with valves that are maintained closed. The valves can allow stormwater to be discharged or divert fluid to an OWS. • Drip Pan Use: <ul style="list-style-type: none"> • DEPLOYMENT: Use drip pan ONLY for leaking vehicles/equipment; drip pan not needed for non-leaking vehicles/equipment. After observing any leakage, immediately apply a drip pan. • MAINTENANCE: Take steps to prevent liquid overflow from drip pan. This means, in advance of precipitation, service any drip pans containing liquid by properly handling the liquid. If the liquid contains an oily sheen, odor, or other signs of contamination, then dispose of the drip pan contents into the proper Hazardous Waste drum OR contact Base Environmental for assistance. If the liquid has NO sheen/contaminants, then discharge into grassy area. • INSPECTIONS: Conduct frequent monitoring of deployed drip pans - visually inspect at least once per week.
Suggested BMPs: <ul style="list-style-type: none"> • Improve maintenance in outdoor HAZMAT sheds. • Monitor leaking vehicles along the boundary line of the north side parking area between the pavement and the grass. 	
Other Information: <ul style="list-style-type: none"> • Long-term bus, truck, and equipment parking is in the south parking area. Long-term truck, snow removal equipment, deicing equipment, and construction equipment parking in east parking area. • A refueling truck parking area with sloped concrete berms for containment has been fully constructed. 	

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

2 March 2021

Building Number or Location:

5375

Description:

Base Supply

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- Various sizes of hazardous material containers received at southwest loading dock.
- Vehicle and generator fluids from long-term parking areas to the south and northeast of the building waiting turn-in to DRMO.
- One flammables locker located inside containing various POLs.
- Drum storage area located along the north wall of building.

Likelihood of Storm Water Contamination:

- No floor drains in building.
- Occasional loading/unloading of 55-gallon drums of hazardous materials occurs at the loading dock on the southwest side of the building; these drums are then moved to Building 1301, the HAZMAT Pharmacy, for storage.
- Potential for leaks from long-term generator parking areas: outside storage yard northwest of the building stores miscellaneous equipment, supplies, and generators; vehicles and a crane are stored on the southwest side of the building.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Runoff from north loading dock flows 20 feet to a storm inlet.
- Runoff from northwest loading dock flows 50 feet to a storm inlet in the street.
- Runoff in outside storage yard flows 20 feet to storm inlets in the asphalt.
- Located in Drainage Basins 002 and 004, and drains to Outfalls 002 and 004 respectively.

General BMPs in Place:

- ☐ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☒ Inspections
- ☐ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☒ Secondary Containment
- ☒ Training
- ☒ Waste, Garbage, and Floatable Debris
- ☐ Prohibition of Industrial Activities Outside of Designated Areas
- ☐ Minimize Dust and Off-Site Material Tracking
- ☐ Minimize Exposure

Site-Specific BMPs in Place:

- Small spill kit and absorbent material inside building.
- Spill pallets are used to store containers/drums of hazardous materials while kept at Base Supply.
- Vehicles in the long-term DMO parking lot are checked frequently for leaks. Stains and leaks from vehicles are promptly cleaned up.

Suggested BMPs: None.

Other Information:

- None.

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

1 March 2021

Building Number or Location:

5425

Description:

Exchange Gas Station

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- Three (3) multi-fuel, dual sided fuel pumps
- Three (3) 10,000-gallon gasoline USTs.
- Forklift fluids are stored in back of the store under a canopy
- Forklift parked in rear of building.

Likelihood of Storm Water Contamination:

- Fuel pump area and the fuel receiving area are on concrete pads with small ridges that contain small spills and reduce storm water run-on.
- Fueling area is on a local high point, which prevents storm water run-on.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Runoff from the fuel receiving area flows directly to an OWS and the storm sewer.
- Runoff from pump area flows 100 feet in either direction over asphalt to storm sewer inlets in either Air Lift Road or Walker Avenue.
- Forklift storage area is located near a storm drain inlet.
- Located in Drainage Basin 004 and drains to Outfall 004.

General BMPs in Place:

- ☐ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☒ Inspections
- ☒ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☐ Secondary Containment
- ☒ Training
- ☒ Waste, Garbage, and Floatable Debris
- ☐ Prohibition of Industrial Activities Outside of Designated Areas
- ☐ Minimize Dust and Off-Site Material Tracking
- ☒ Minimize Exposure

Site-Specific BMPs in Place:

- Roof over fuel pumps.
- Small ridges on concrete fueling pad contain small fueling spills and reduce storm water run-on.
- Fueling area is on a local high point which prevents run-on.
- Small OWS collects runoff from fuel receiving area.
- USTs have overflow alarms and automatic shutoff floats in the fill ports.
- Two emergency shut-off buttons for gas pumps are installed on the outside and inside of the building.
- Large spill kit located by the fuel pumps.

Suggested BMPs: None.

Other Information:

- None.

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

2 March 2021

Building Number or Location:

7000/DC Hangar

Description:

Fuel Systems Maintenance Shop, Aircraft Inspection,
ISO Dock

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- Two HAZMAT storage shed inside the hangar serves as the hazardous waste accumulation point and has two spill kits.
- Multiple flammables lockers containing oil and fuel are located in the ISO Dock Area.
- 55-gallon drums with Jet A and solvent spill debris are located in Fuel Systems Maintenance.
- Multiple flammables lockers are located in Fuel Systems Maintenance.
- (2) 600-gallon fuel bowzers are located in Fuel Systems Maintenance.
- Fuel vacuum pumps located inside fuel system maintenance shop

Likelihood of Storm Water Contamination:

- All floor drains are connected to two OWSs and the sanitary sewer.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- No storm water entry points of concern.
- Located in Drainage Basin 002 and drains to Outfall 002.

General BMPs in Place:

- ☐ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☒ Inspections
- ☐ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☐ Secondary Containment
- ☒ Training
- ☒ Waste, Garbage, and Floatable Debris
- ☐ Prohibition of Industrial Activities Outside of Designated Areas
- ☐ Minimize Dust and Off-Site Material Tracking
- ☐ Minimize Exposure

Site-Specific BMPs in Place:

- Drip pans and absorbent pads are placed under aircraft engines during maintenance.
- Building floor drains are connected to two OWSs and the sanitary sewer.
- HAZMAT storage shed provides cover and secondary containment for various hazardous materials.
- Spill kits located in the hangar and in the HAZMAT storage shed.
-
- Bowzers parked within plastic spill dikes

Suggested BMPs: None.

Other Information:

- None.

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

1 March 2021

Building Number or Location:

7025, 7026, 7027

Description:

Bulk Fuel Storage Area

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- Two 840,000-gallon Jet A ASTs (Facilities 7026 and 7027).
- 2,000-gallon pressure-relief UST.
- Four off-loading headers and two fuel pumps in loading area. Two fuel pumps in pump room.
- 270- gallon diesel power stand-by generator

Likelihood of Storm Water Contamination:

- ASTs are located in concrete containment dikes. The walls of the dikes are lined with a high-density polyethylene (HDPE) cover to increase the impermeability of the dikes.
- AST containment dikes are equipped with drain valves that are maintained closed. Discharged runoff flows to a 4,000-gallon OWS then to storm sewer which leads to a 44,000-gallon airfield OWS.
- Fuel loading area is bermed and sloped towards trench drains with closed storm drain valves; discharged runoff flows to 4,000-gallon OWS then to storm sewer which leads to a 44,000-gallon airfield OWS.
- Excess pressure in the fuel lines is bled off into the product recovery tank.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Runoff flows over soil and asphalt to storm inlets in the area.
- Located in Drainage Basin 002 and drains to Outfall 002.

General BMPs in Place:

- ☐ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☒ Inspections
- ☒ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☒ Secondary Containment
- ☒ Training
- ☒ Waste, Garbage, and Floatable Debris
- ☒ Prohibition of Industrial Activities Outside of Designated Areas
- ☐ Minimize Dust and Off-Site Material Tracking
- ☐ Minimize Exposure

Site-Specific BMPs in Place:

- The concrete dike liner is inspected and replaced when it becomes deteriorated.
- Large spill kit near fuel loading area.
- Fuels system emergency shutdown switch in fuels loading area.
- Sweep out the interior of the dikes as necessary to prevent sediment from entering the OWS and storm sewer.
- Drainage logs maintained in pump room.
- Fuel unloading area has a roof and bollards protecting pumps.
- Signs show valve operating instructions for diverting flow to the OWS.

Suggested BMPs:

None.

Other Information:

- None.

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

2 March 2021

Building Number or Location:

7040/Pull-Through Hangar

Description:

Corrosion Control, Aircraft Wash Rack

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- Propylene glycol associated with the deicing truck fill stand.
- 30,000-gallon propylene glycol UST for aircraft deicing.
- Multiple trucks and equipment stored inside hanger (deicing trucks, cranes, boom life, AGE, etc.) During offseason, deicing trucks are parked outside between 7071 and 7072
- Waste POLs inside caged area within the hangar.
- Flammables lockers inside hangar containing small amounts of paint, lube, adhesive, and detergents.

Corrosion Control Room:

- Acids and chromic waste inside corrosion control room.
- Hazardous waste accumulation point
- (2) Two flammables lockers

Mechanical Room:

- (1) One 6,000-gallon UST
 - (2) Two 5,000-gallon aircraft soap tanks
- Multiple concentrate AFFF totes

Tire Room:

- Tire washer and parts washer
- Flammables locker
- Chemical bath containers located inside fenced area (acids locker)
- 1,000-gallon high-expansion foam tank in fire suppression room.
- Flammables locker and 55-gallon drums of hazardous waste located inside paint room; operationally controlled by Hangar 7.

Likelihood of Storm Water Contamination:

- Aircraft washing and painting occur in the hangar.
- Two large trench drains run the length of Building 7040 and collect runoff in a 30,000-gallon collection tank that drains through an OWS to an ejection pit, where it is tested and released to the sanitary sewer.
- Deicing trucks are issued propylene glycol at the glycol fill stand on the north corner of the building. Bollards protect the fill stand, but no secondary containment is present.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Runoff from glycol fill stand flows 20 feet north over asphalt and grass to a storm sewer inlet.
- Storm drains in the glycol storage and fill areas and drains on the north and northwest sides of the hangar are located in Drainage Basin 001 and drains to Outfall 001.
- The remaining storm drains around the hangar discharge to Outfall 002.

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WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION	
Building Number or Location: 7040/Pull-Through Hangar	Description: Corrosion Control, Aircraft Wash Rack
General BMPs in Place: <ul style="list-style-type: none"><input type="checkbox"/> Erosion and Sediment Controls<input checked="" type="checkbox"/> Good Housekeeping<input checked="" type="checkbox"/> Inspections<input type="checkbox"/> Preventive Maintenance<input checked="" type="checkbox"/> Spill Prevention and Response<input checked="" type="checkbox"/> Secondary Containment<input checked="" type="checkbox"/> Training<input checked="" type="checkbox"/> Waste, Garbage, and Floatable Debris<input checked="" type="checkbox"/> Prohibition of Industrial Activities Outside of Designated Areas<input type="checkbox"/> Minimize Dust and Off-Site Material Tracking<input type="checkbox"/> Minimize Exposure	Site-Specific BMPs in Place: <ul style="list-style-type: none">• Spill kit is located next to the propylene glycol fill stand.• Two spill kits located inside the building.• All aircraft washing is conducted indoors.• Frequent checks of deicing trucks (especially during offseason) for any active leaking, use drip pans, and clean up spills below vehicles.
Suggested BMPs: None.	
Other Information: None.	

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

1 March 2021

Building Number or Location:

7045, 7046

Description:

Military Gas Station

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- 20,000-gallon diesel, 15,000-gallon gasoline, and 5,000-gallon Jet-A USTs.
- Two fuel dispensing stations for diesel, gasoline, and Jet A.
- A truck loading header for diesel fuel.

Likelihood of Storm Water Contamination:

- Both fueling areas are covered with roofs.
- Fueling areas are on local high points and the concrete around them has small grooves cut in it to limit runoff.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Runoff from both service areas flows 50 feet over concrete and asphalt to an OWS where it ultimately discharges to the storm sewer.
- Trench drains with valves normally in the closed position are around the section that has the diesel loading arm. The trench drains discharge to a 1,500-gallon OWS before entering the storm sewer.
- Located in Drainage Basin 001 and drains to Outfall 001.

General BMPs in Place:

- ☐ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☐ Inspections
- ☐ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☐ Secondary Containment
- ☒ Training
- ☒ Waste, Garbage, and Floatable Debris
- ☐ Prohibition of Industrial Activities Outside of Designated Areas
- ☐ Minimize Dust and Off-Site Material Tracking
- ☐ Minimize Exposure

Site-Specific BMPs in Place:

- Roof over fueling areas.
- Small ridges on concrete fueling pads contain small fuel spills and prevent runoff.
- Fueling area is on a local high point that prevents storm water run-on.
- Runoff flows into a trench drain and through an OWS, which is inspected as needed. Red post indicator valve is used to control flow from the trench drains. It is closed when a truck is receiving fuel from the loading header.
- Large spill kit is located at Bldg 7045 with spill booms.
- Small "customer" spill kit is present at Bldg 7046.
- Bollards on either end of both fueling areas protect fuel pumps from damage by vehicles.
- Emergency stop for fuel pumps at each island and on outside wall of Hangar 9.

Suggested BMPs: Restock spill kits with necessary cleanup supplies.

Other Information:

- Potential future project to move portion of gas station on flightline side of fencing further away from fence.

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

2 March 2021

Building Number or Location:

7071/Hangar 9

Description:

AGE (South Side of Hangar)

AMXS (North Side of Hangar)

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- Potential leaks from generators, light stands, and lifts stored on southeast side of the building.
- Detergent in the wastewater from the indoor wash rack.
- Three indoor HAZMAT storage sheds containing waste oils, antifreeze, POLs and waste rags.
- Several+ Flammables lockers throughout the inside of hangar with small amounts of paints and solvents.
- Oil drip pans and empty containers stored inside indoor caged area.
- Two (2) sky jack scissor lifts.
- Indoor POL dispensing rack with 60-gallon containers of hydraulic fluid, lube oil, and antifreeze.
- 55-gallon drums stored indoors (lube oil, solvents, hydraulic fluid, cleaning compound).
- Outdoor HAZMAT storage shed with small cans of oil and hydraulic fluids
- Solvents wash cleaner and drums of detergent inside of wash bay

Likelihood of Storm Water Contamination:

- Trench drains inside building go to the OWS then to sanitary sewer.
- AGE has an approved wash rack for their equipment in this hangar; wash rack drains to OWS, then to sanitary sewer.
- Generators and AGE equipment are parked outside, except when weather does not permit.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Runoff from generator storage area flows 200 feet over concrete and asphalt to a storm inlet.
- Located in Drainage Basin 001 and drains to Outfall 001.

General BMPs in Place:

- ☐ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☒ Inspections
- ☒ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☒ Secondary Containment
- ☒ Training
- ☒ Waste, Garbage, and Floatable Debris
- ☐ Prohibition of Industrial Activities Outside of Designated Areas
- ☐ Minimize Dust and Off-Site Material Tracking
- ☒ Minimize Exposure

Site-Specific BMPs in Place:

- AGE equipment are stored in the hangar unless in use in the Ready Line.
- Washing occurs at an approved wash rack inside the hangar; drains to OWS then to sanitary sewer.
- Posted spill warning signs in hangar.
- Spill kits throughout hangar.
- Flammables lockers and HAZMAT storage sheds provide cover and secondary containment for hazardous materials.

Suggested BMPs: None.

Other Information:

- None.

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

2 March 2021

Building Number or Location:

7072/Hangar 7

Description:

NDI, Structural Maintenance, and Metals Technology Shops

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- Long-term vehicle and equipment parking on flightline side of facility.
- Fiberglass Shop/paint shop:
 - 55-gallon drums of ADH residue and sanding debris.
 - 30-gallon drum of acid residue.
 - One (1) flammables lockers, one (1) corrosives cabinet One (1) waste accumulation point
- NDI Shop:
 - Open vats of liquid for submersion testing.
 - Wastewater treatment system of 4 granulated carbon drums.
 - Two (2) flammables lockers, one (1) corrosives cabinet
- Metals Technology Welding:
 - Water jet cutting machine

Likelihood of Storm Water Contamination:

- Floor drains in hangar go to sanitary sewer.
- Trucks are parked long-term outside on the flightline side of the facility.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Runoff from the truck parking area flows 40 feet over asphalt to storm drain inlets.
- Located in Drainage Basin 001, and drains to Outfall 001.

General BMPs in Place:

- ☐ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☒ Inspections
- ☒ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☒ Secondary Containment
- ☒ Training
- ☒ Waste, Garbage, and Floatable Debris
- ☐ Prohibition of Industrial Activities Outside of Designated Areas
- ☐ Minimize Dust and Off-Site Material Tracking
- ☐ Minimize Exposure

Site-Specific BMPs in Place:

- Spill kits inside all shop areas.
- Flammables lockers and HAZMAT storage sheds provide cover and secondary containment for hazardous materials.
- Spill pallets provided inside hangar for hazardous material storage.
- Waste fluids from NDI are pre-treated and sent to sanitary sewer. Drums are placed on spill pallets.

Suggested BMPs: None.

Other Information:

- None.

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

2 March 2021

Building Number or Location:

7073/Hangar 5

Description:

Roads and Grounds Shop, Vehicle Maintenance Shop

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- Vehicle and heavy equipment fluids from long-term vehicle and equipment parking on south and east sides of the building, includes various lawn tractors and snow equipment-Parked inside, northside of hanger, and building 3400.Small amounts of POLs on spill pallets in building. Multiple POL dispensing areas in secondary containment. Waste oil accumulation point is located in a small room in the hanger.
- Bags of solid runway deicer.
- Pallets of 5-gallon buckets of rock salt for sidewalk and road deicing.
- Four (4) flammables lockers containing POLs, insecticide, paint, herbicide, and diesel fuel.
- Various 55-gallon drums of oil, hydraulic fluid, antifreeze, a 480-gallon waste oil tank, and two fuel caddies (one of diesel fuel and one of gasoline) at the hazardous waste accumulation point.
- Various 5-gallon containers of oil on spill pallet located on the south side of building.
- A double walled, 125x4, multi-compartmental dispenser tank.
- Indoor POL dispensing rack with 60-gallon containers of hydraulic fluid, lube oil, and antifreeze.
- 225-gallon windshield washer fluid
- Solvents parts washer

Likelihood of Storm Water Contamination:

- Floor drains go to sanitary sewer.
- Vehicle washing occurs inside the hangar and discharges to the sanitary sewer.
- Potential for leaks from vehicles and heavy equipment parked in the east and south sides of the building. Several leaks were identified under vehicles and hydraulic units.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Runoff from south parking area flows 10 feet over asphalt to a storm sewer inlet in the area.
- Runoff from east parking area flows immediately to several storm sewer inlets.
- Located in Drainage Basin 001 and drains to Outfall 001.

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WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION	
Building Number or Location: 7073/Hangar 5	Description: Roads and Grounds Shop, Vehicle Maintenance Shop
General BMPs in Place: <ul style="list-style-type: none"><input type="checkbox"/> Erosion and Sediment Controls<input checked="" type="checkbox"/> Good Housekeeping<input checked="" type="checkbox"/> Inspections<input checked="" type="checkbox"/> Preventive Maintenance<input checked="" type="checkbox"/> Spill Prevention and Response<input checked="" type="checkbox"/> Secondary Containment<input checked="" type="checkbox"/> Training<input checked="" type="checkbox"/> Waste, Garbage, and Floatable Debris<input type="checkbox"/> Prohibition of Industrial Activities Outside of Designated Areas<input type="checkbox"/> Minimize Dust and Off-Site Material Tracking<input checked="" type="checkbox"/> Minimize Exposure	Site-Specific BMPs in Place: <ul style="list-style-type: none">• A concrete berm serves as containment at the hazardous waste accumulation point.• Salt trucks stored indoors.• Floor drains on the southwest side of the shop drain to an OWS then to the sanitary sewer.• Spill kit located inside building.• 400-gallon used oil tank is double-walled.• Drip Pan Use:<ul style="list-style-type: none">• DEPLOYMENT: Use drip pan ONLY for leaking vehicles/equipment; drip pan not needed for non-leaking vehicles/equipment. After observing any leakage, immediately apply a drip pan.• MAINTENANCE: Take steps to prevent liquid overflow from drip pan. This means, in advance of precipitation, service any drip pans containing liquid by properly handling the liquid. If the liquid contains an oily sheen, odor, or other signs of contamination, then dispose of the drip pan contents into the proper Hazardous Waste drum OR contact Base Environmental for assistance. If the liquid has NO sheen/contaminants, then discharge into grassy area.• INSPECTIONS: Conduct frequent monitoring of deployed drip pans - visually inspect at least once per week.
Suggested BMPs: Check for and clean any leaking vehicles on flightline apron.	
Other Information: None.	

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

1 March 2021

Building Number or Location:

7075/Hangar 3

Description:

Hangar 3

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- Vehicle and equipment fluids (from long-term vehicle and equipment parking).

Inside Hangar:

- (3) flammables lockers containing disinfectants, cleaners, and soaps on east side of hangar.
- (2) 325-gallon totes of glycol and (1) 55-gal. drum of deodorant for aircraft latrines.
- (2) Portable generators
- (3) Flammables lockers on west side of hangar
- Multiple trucks and various equipment temporarily stored inside hangar for winter storage (front loader, k-loader, ladder trucks, etc.)

Likelihood of Storm Water Contamination:

- Floor drains go to sanitary sewer.
- Potential for leaks from vehicles and equipment stored in long-term parking.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Runoff flows directly to storm drains located in the parking lots adjacent to the facility.
- Located in Drainage Basin 001, and drains to Outfall 001

General BMPs in Place:

- ☐ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☒ Inspections
- ☐ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☒ Secondary Containment
- ☒ Training
- ☒ Waste, Garbage, and Floatable Debris
- ☐ Prohibition of Industrial Activities Outside of Designated Areas
- ☐ Minimize Dust and Off-Site Material Tracking
- ☒ Minimize Exposure

Site-Specific BMPs in Place:

- Glycol and deodorant totes are stored on a containment pallet.
- Vehicles stored inside hangar during winter.
- Absorbent pads and dry material available for spill cleanup.
- Flammables lockers provide cover and secondary containment for hazardous materials.

Suggested BMPs: None.

Other Information:

- None.

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

1 March 2021

Building Number or Location:

7084

Description:

Fire Department

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- One 600-gallon diesel UST for generators.
- Hazardous materials stored in HAZMAT storage sheds.
- (2) Flammables locker with POLs, paint, and diesel located inside parking bay.
- Vehicles washed indoors.
- Fire trucks and breathing air generator parked inside bay area
- Interior wash rack inside newly renovated bay area
- 500-gallons of alcohol resistant AFFF trailer inside bay area

Likelihood of Storm Water Contamination:

- Washing of vehicles with soap occurs inside the Fire Department garage and all floor drains are routed to an OWS and to the sanitary sewer.
- AFFF UST is in a grassed area north of the building.
- Small amounts of hazardous materials are stored in flammable lockers in the building.
- Floor drains in the vehicle storage area go to sanitary sewer.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Overfilling of USTs or spills that exit the building would flow to nearby storm drains.
- Located in Drainage Basin 007, and drains to Outfall 007.

General BMPs in Place:

- ☐ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☒ Inspections
- ☒ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☐ Secondary Containment
- ☒ Training
- ☒ Waste, Garbage, and Floatable Debris
- ☒ Prohibition of Industrial Activities Outside of Designated Areas
- ☐ Minimize Dust and Off-Site Material Tracking
- ☐ Minimize Exposure

Site-Specific BMPs in Place:

- Truck washing prohibited outdoors.
- Spill kits available on all vehicles.

Suggested BMPs: None.

Other Information:

- None.

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

1 March 2021

Building Number or Location:

7705, 7713, 7714

Description:

Fuel Stands; Hydrant System; Pump Houses;
Bulk Fuel Tanks; Refueler Truck Parking

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- (2) 298,000-gallon Jet-A bulk storage tanks
- Jet-A in hydrant piping, fill stands, transfer locations, and various fuel pumps and pump houses.
- Diesel generator adjacent to pumphouse.
- Refueler parking:
 - (1) 1,200-gallon diesel refueler truck
 - (3) hydrant trucks
 - (6) 6,000-gallon Jet-A fuel trucks.
 - (4) 600-gallon fuel bowsers for storage and recovery of fuel.
- 4,000-gallon UST for Jet-A product recovery.

Likelihood of Storm Water Contamination:

- Hydrant fill stands are bermed concrete pads with trench drains that discharge to an 8,000-gallon fill stand vault with a normally closed valve. When opened, the flow from the vault discharges to an OWS and ultimately to the storm sewer.
- Drains in the pump house are routed to the 4,000-gallon product recovery UST.
- Trucks and bowsers currently stored outside of containment as parking area is being constructed.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Runoff in the POL area flows to storm inlets in the grassy areas.
- Secondary containment areas drain to OWS and the storm sewer.
- Located in Drainage Basin 002 and drains to Outfall 002, which has a 44,000-gallon OWS.

General BMPs in Place:

- ☐ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☒ Inspections
- ☒ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☒ Secondary Containment
- ☒ Training
- ☒ Waste, garbage, and floatable debris
- ☒ Prohibition of Industrial Activities Outside of Designated Areas
- ☐ Minimize Dust and Off-Site Material Tracking
- ☐ Minimize Exposure

Site-Specific BMPs in Place:

- Bulk fuel storage tank located in concrete sized containment dikes. Tanks have high level alarms and automatic shutoff. Containment area drain valves are manually operated and kept closed until inspection of accumulated water.
- Refueler tankers are parked in a concrete containment area with trench drains that discharge to concrete vault for spill capture. Containment area drain valves are manually operated and kept closed until inspection of accumulated water.
- Before fueling at fill stands, manual valve is switched to divert spills to concrete vault for spill capture.
- Hydrostatic testing conducted daily on hydrant loop piping.
- Spill kits located throughout the area.
- Pump switches are shut off when not in use.

Suggested BMPs: None.

Other Information: None.

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

1 March 2021

Building Number or Location:

7711

Description:

Refueler Truck Maintenance Facility

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- Jet-A from refueler trucks being repaired within garage.
- Indoor POL dispensing rack with 60-gallon containers of hydraulic fluid, lube oil, and antifreeze.
- Various small containers of POL.
- One 55-gallon used oil drum and one 55-gallon fuel spill debris within concrete secondary containment dike inside the garage.
- 500-gallon fuel meter calibrating tank on the south side and inside the building.
- Flammable locker with various small hazardous materials.
- 1,000-gallon No. 2 fuel oil AST located outside.
- 15,000-gallon spill containment UST with access on the west side of the building.

Likelihood of Storm Water Contamination:

- Trench drains in building discharge to a 15,000-gallon containment tank to capture accidental releases from within the shop.
- No. 2 fuel oil AST is in secondary containment.
- POL and antifreeze dispensing rack and used oil drum in concrete containment within building.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Trench and circular floor drains in building discharge to 15,000-gallon containment tank.
- Runoff from outside refueler truck area flows 50 to 150 feet to storm inlets.
- Located in Drainage Basin 002 and drains to Outfall 002.

General BMPs in Place:

- ☐ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☒ Inspections
- ☒ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☒ Secondary Containment
- ☒ Training
- ☒ Waste, Garbage, and Floatable Debris
- ☒ Prohibition of Industrial Activities Outside of Designated Areas
- ☐ Minimize Dust and Off-Site Material Tracking
- ☐ Minimize Exposure

Site-Specific BMPs in Place:

- Containment tank serves the trench drains and floor drains in the maintenance garage.
- Drip pans used under refueler trucks during maintenance operations.
- Permanent concrete dike around drums/antifreeze/oil dispensing units.
- Use of dry clean-up methods for fuel spills.
- Spill kit located in building.
- Flammables locker provides cover and secondary containment for hazardous materials.

Suggested BMPs: None.

Other Information:

- None.

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

1 March 2021

Building Number or Location:

8005

Description:

Fire Training Area

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- 12,000-gallon liquid propane tank located near the plane mockup.
- Wrecked vehicles parked in concrete pad
- Ash accumulation from fire training.
- Mock refueler trucks and plane fuselage for training

Likelihood of Storm Water Contamination:

- Water from fire training activities at the smokehouse enter one of 4 drain inlets that ultimately discharge to the lined retention pond.
- Water from fire training activities at the plane mockup flows to the retention pond.
- Water accumulated in the retention pond is allowed to evaporate or is discharged to the sanitary sewer when it becomes too full.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Runoff flows to retention pond and ultimately to the sanitary sewer if necessary.
- Located in Drainage Basin 005 and drains to Outfall 011.

General BMPs in Place:

- ☐ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☒ Inspections
- ☒ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☒ Secondary Containment
- ☒ Training
- ☒ Waste, Garbage, and Floatable Debris
- ☐ Prohibition of Industrial Activities Outside of Designated Areas
- ☐ Minimize Dust and Off-Site Material Tracking
- ☒ Minimize Exposure

Site-Specific BMPs in Place:

- Only water (no foam) is used during fire training exercises.
- If necessary, the retention pond is discharged to the sanitary sewer.
- Mock and wrecked vehicles used in training are drained of fluids before being used for training at the facility.

Suggested BMPs: Manage fluids and debris from wrecked vehicles.

Other Information:

- None.

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

1 March 2021

Building Number or Location:

N/A

Description:

Flightline Apron

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- Jet-A fuel and hydraulic fluid in parked aircraft.
- Propylene glycol stored in UST adjacent to Building 7040.
- Two (2) tanks with potassium acetate for runway and apron deicing operations.
- Refueling pits along the hydrant system loop used to refuel aircraft.
- Fluids from deicing equipment, generators, AGE equipment, and other vehicles parked on the apron.
- HAZMAT storage locker with small fuel containers

Likelihood of Storm Water Contamination:

- Both dry and wet-weather aircraft deicing occurs on apron.
- Potassium acetate routinely spread along apron during winter months to remove ice.
- Aircraft fueling conducted at high pressures by refueling truck or hydrant system loop.
- Small hydraulic fluid spills occur from the C-5 aircraft.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Storm sewer inlets line the center of the apron and runoff flows to either the 70,000-gallon OWS at Outfall 001 or to the 44,000-gallon OWS at Outfall 002; ultimate discharge is Cooley Brook.
- Effluent from the OWS at Outfall 001 is routed to a wetland treatment system before discharge to Cooley Brook.
- Located in Drainage Basins 001 and 002 and drains to Outfalls 001 and 002 respectively.

General BMPs in Place:

- ☐ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☒ Inspections
- ☐ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☐ Secondary Containment
- ☒ Training
- ☒ Waste, Garbage, and Floatable Debris
- ☐ Prohibition of Industrial Activities Outside of Designated Areas
- ☒ Minimize Dust and Off-Site Material Tracking
- ☒ Minimize Exposure

Site-Specific BMPs in Place:

- Concrete apron is graded to prevent storm water runoff.
- The Fire Department is located on the flightline and can provide immediate response in the event of a spill.
- If possible, flights are delayed to avoid deicing activities.
- Aircraft glycol usage is monitored, logged, and submitted to the Environmental Office after each deicing event.
- When possible, deicing activities are conducted at parking spaces E-1 through E-8 and E-12 through E-14 on the Echo Ramp because these locations drain to Outfall 001, served by the wetlands treatment system.
- When possible, aircraft scheduled to fly the next day are stored in the hangar.
- Moving parts and surfaces are deiced first.
- Hot air is used for frost, light snow, and later flight times

Suggested BMPs: Recoat potassium acetate tank because of large amounts of rusting and potential for leaking.

Other Information:

- None.

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

1 March 2021

Building Number or Location:

N/A

Description:

Transient Aircraft Apron
AKA: North Ramp

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- Jet-A fuel in transient aircraft.
- Fueling of aircraft with Jet-A from refueling trucks.
- Propylene glycol during aircraft deicing operations.
- Potassium acetate from apron deicing activities.
- Heavy equipment fluids from long-term snow removal equipment parking.

Likelihood of Storm Water Contamination:

- Aircraft fueling occurs on the apron.
- Snow removal equipment is parked at the north end of the apron.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Runoff from the transient apron flows over concrete and grass up to 400 feet to storm sewer inlets.
- Located in Drainage Basin 007 and drains to Outfall 007.

General BMPs in Place:

- ☐ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☒ Inspections
- ☐ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☐ Secondary Containment
- ☒ Training
- ☒ Waste, Garbage, and Floatable Debris
- ☐ Prohibition of Industrial Activities Outside of Designated Areas
- ☒ Minimize Dust and Off-Site Material Tracking
- ☒ Minimize Exposure

Site-Specific BMPs in Place:

- Concrete apron is graded to prevent storm water runoff.
- The Fire Department is located on the flightline and can provide immediate response in the event of a spill.
- If possible, flights are delayed to avoid deicing activities.
- Aircraft glycol usage is monitored, logged, and submitted to the Environmental Office after each deicing event.
- When possible, deicing activities are conducted at parking spaces E-1 through E-8 and E-12 through E-14 on the Echo Ramp because these locations drain to Outfall 001, served by the wetlands treatment system.
- When possible, aircraft scheduled to fly the next day are stored in the hangar.
- Moving parts and surfaces are deiced first.
- Hot air is used for frost, light snow, and later flight times

Suggested BMPs: None.

Other Information:

- None.

WESTOVER ARB STORM WATER POLLUTION PREVENTION PLAN

REGULATED INDUSTRIAL ACTIVITY POINT (RIAP) INSPECTION

1 March 2021

Building Number or Location:

N/A

Description:

Soil Stockpile

Inventory of Hazardous Materials Potentially Exposed to Stormwater:

- Sediments from erosion of soil piles.
- Asphalt, wood, straw, concrete, and manhole covers in piles throughout the area.
- Stockpile of material from runway construction project

Likelihood of Storm Water Contamination:

- Sediment on roadways during loading, unloading and transport of materials.
- Sediment from soil stockpile runoff.

Description of Stormwater Entry Points and Ultimate Outfall Point:

- Storm water runoff flows approximately 200 feet to the southwest across grassed field before entering Stony Brook and ultimately Outfall 011.
- Located in Drainage Basin 011 and drains to Outfall 011.

General BMPs in Place:

- ☒ Erosion and Sediment Controls
- ☒ Good Housekeeping
- ☒ Inspections
- ☐ Preventive Maintenance
- ☒ Spill Prevention and Response
- ☐ Secondary Containment
- ☒ Training
- ☒ Waste, Garbage, and Floatable Debris
- ☐ Prohibition of Industrial Activities Outside of Designated Areas
- ☒ Minimize Dust and Off-Site Material Tracking
- ☒ Minimize Exposure

Site-Specific BMPs in Place:

- Create and enforce guidelines that prohibit what materials can be brought here.
- Grassed buffer area which storm water must flow across before entering Stony Brook.
- Earthen berm along the west side to limit storm water runoff directly into Stony Brook and allow for settling of entrained sediments.
- Contractors are to clean up tracked sediment from activities at the end of each day.
- Frequent monitoring of uncontained soil stockpiles for erosion.

Suggested BMPs: None.

Other Information:

- None.

Appendix E: Copy of the 2021 Multi-Sector General Permit

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA)
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
MULTI-SECTOR GENERAL PERMIT (MSGP)
FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY**

In compliance with the provisions of the Clean Water Act (CWA), as amended (33 U.S.C. 1251 et seq.), operators of stormwater discharges associated with industrial activity located in an area identified in Appendix C where EPA is the permitting authority are authorized to discharge to waters of the United States in accordance with the eligibility and Notice of Intent (NOI) requirements, effluent limitations, inspection requirements, and other conditions set forth in this permit. This permit is structured as follows:

- **Parts 1-7:** General requirements that apply to all facilities;
- **Part 8:** Industry sector-specific requirements;
- **Part 9:** Specific requirements that apply in individual states and Indian country; and
- **Appendices A through P:** Additional permit conditions that apply to all operators covered under this permit.

This permit becomes effective on **March 1, 2021**. This permit and the authorization to discharge shall expire at 11:59 pm eastern time, **February 28, 2026**.

Signed and issued this 15th day of January 2021

**DENNIS
DEZIEL**
Digitally signed by
DENNIS DEZIEL
Date: 2021.01.15
11:27:28 -05'00'

Dennis Deziel,
Regional Administrator, EPA Region 1.

Signed and issued this 15th day of January 2021

**CHARLES
MAGUIRE**
Digitally signed by CHARLES MAGUIRE
DN: cn=U.S. Government,
ou=Environmental Protection Agency,
cn=CHARLES MAGUIRE,
o=U.S. Government,
c=U.S.A., email=charles.maguire@epa.gov
Date: 2021.01.15 12:41:18 -06'00'

Charles Maguire,
Director, Water Division, EPA Region 6.

Signed and issued this 15th day of January 2021

**JEFFREY
GRATZ**
Digitally signed by
JEFFREY GRATZ
Date: 2021.01.15
09:35:36 -05'00'

Jeffrey Gratz,
Deputy Director, Water Division, EPA Region 2.

Signed and issued this 15th day of January 2021

**JEFFERY
ROBICHAUD**
Digitally signed by
JEFFERY ROBICHAUD
Date: 2021.01.15
13:43:45 -06'00'

Jeffery Robichaud,
Director, Water Division, EPA Region 7.

Signed and issued this 15th day of January 2021

**CARMEN
GUERRERO
PEREZ**
Digitally signed by
GUERRERO PEREZ
Date: 2021.01.15 11:13:39
-04'00'

Carmen R. Guerrero-Perez,
Director, Caribbean Environmental Protection Division, EPA
Region 2.

Signed and issued this 15th day of January 2021

**DARCY
O'CONNOR**
Digitally signed by
DARCY O'CONNOR
Date: 2021.01.15
14:22:01 -07'00'

Darcy O'Connor,
Director, Water Division, EPA Region 8.

Signed and issued this 15th day of January 2021

**CATHERINE
LIBERTZ**
Digitally signed by
CATHERINE LIBERTZ
Date: 2021.01.15
10:55:42 -05'00'

Catherine A. Libertz,
Director, Water Division, EPA Region 3.

Signed and issued this 15th day of January 2021

**TOMAS
TORRES**
Digitally signed by
TOMAS TORRES
Date: 2021.01.15
15:00:36 -08'00'

Tomás Torres,
Director, Water Division, EPA Region 9.

Signed and issued this 15th day of January 2021

**JEANEANNE
GETTLE**
Digitally signed by
JEANEANNE GETTLE
Date: 2021.01.15
08:29:14 -05'00'

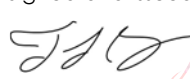
Jeaneanne Gettle,
Director, Water Division, EPA Region 4.

Signed and issued this 15th day of January 2021

**DANIEL
OPALSKI**
Digitally signed by
DANIEL OPALSKI
Date: 2021.01.15
15:30:11 -08'00'

Daniel D. Opalski,
Director, Water Division, EPA Region 10.

Signed and issued this 15th day of January 2021


Digitally signed by TERA
FONG
Date: 2021.01.15
11:31:25 -06'00'

Tera L. Fong,
Director, Water Division, EPA Region 5.

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1 **How to Obtain Coverage Under the 2021 MSGP**

To be covered under this permit, you must meet all of the eligibility conditions and follow the requirements for obtaining permit coverage in Part 1.

1.1 **Eligibility Conditions**

1.1.1 **Location of Your Facility.** Your facility must be located in an area where EPA is the permitting authority and where coverage under this permit is available (see Appendix C);¹

1.1.2 **Your Discharges Are Associated with Industrial Activity.** Your facility must have an authorized stormwater discharge or an authorized non-stormwater discharge per Part 1.2 associated with industrial activity from your primary industrial activity (as defined in Appendix A and as listed in Appendix D), or you have been notified by EPA that you are eligible for coverage under Sector AD.

1.1.3 **Limitations on Coverage.** Discharges from your facility are **not**:

1.1.3.1 **Discharges mixed with non-stormwater discharges.** Discharges mixed with non-stormwater discharges other than those mixed with authorized non-stormwater discharges listed in Part 1.2.2, and/or those mixed with a discharge authorized by a different NPDES permit and/or a discharge that does not require NPDES authorization.

1.1.3.2 **Stormwater discharges associated with construction activity.** Stormwater discharges associated with construction activity disturbing one acre or more, or that are part of a larger common plan of development or sale if the larger common plan will ultimately disturb one acre or more, unless in conjunction with mining activities or certain oil and gas extraction activities as specified in Sectors G, H, I, and J of this permit.

1.1.3.3 **Discharges already covered by another NPDES permit.** Unless you have received written notification from EPA specifically allowing these discharges to be covered under this permit, you are not eligible for coverage under this permit for any of the following:

- a. Stormwater discharges associated with industrial activity that are currently covered under an individual NPDES permit or an alternative NPDES general permit;
- b. Stormwater discharges covered within five years prior to the effective date of this permit by an individual NPDES permit or alternative NPDES general permit where that permit established site-specific numeric water quality-based effluent limitations developed for the industrial stormwater component of the discharge; or
- c. Discharges from facilities where any NPDES permit has been or is in the process of being denied, terminated, or revoked by EPA (this does not apply to the routine expiration and reissuance of NPDES permits every five years).

1.1.3.4 **Stormwater Discharges Subject to Effluent Limitations Guidelines.** Stormwater discharges subject to stormwater effluent limitation guidelines under 40 CFR, Subchapter N, other than those listed in Table 1-1 of this permit.

¹ This condition also applies in the limited circumstances where your facility is located in a jurisdiction where EPA is not the permitting authority, but your discharge point location is to a water of the United States where EPA is the permitting authority.

- 1.1.4 Eligibility Related to Endangered Species Act (ESA) Listed Species and Critical Habitat Protection.** You are able to demonstrate that your stormwater discharges, authorized non-stormwater discharges, and stormwater discharge-related activities are not likely to adversely affect any species that are federally listed as endangered or threatened ("ESA-listed") and are not likely to adversely affect habitat that is designated as "critical habitat" under the Endangered Species Act (ESA), or said discharges and activities were the subject of an ESA Section 7 consultation or an ESA Section 10 permit. You must follow the procedures outlined in the Endangered Species Protection section of the NOI in EPA's NPDES eReporting Tool (NeT-MSGP) and meet one of the criteria listed in Appendix E. You must comply with any measures that formed the basis of your criteria eligibility determination to be in compliance with the MSGP. These measures become permit requirements per Part 2.3. Documentation of these measures must be kept as part of your Stormwater Pollution Prevention Plan (SWPPP) (see Part 6.2.6.1).
- 1.1.5 Eligibility related to National Historic Preservation Act (NHPA)-Protected Properties.** You must follow the procedures outlined in the Historic Properties section of the NOI in NeT-MSGP to demonstrate that your stormwater discharges, authorized non-stormwater discharges, and stormwater discharge-related activities meet one of the eligibility criteria in Appendix F.
- 1.1.6 Eligibility for "New Dischargers" and "New Sources" (as defined in Appendix A)² ONLY**
- 1.1.6.1 Eligibility for "New Dischargers" and "New Sources" Based on Water Quality Standards.** Your stormwater discharge must be controlled as necessary such that the receiving water of the United States will meet applicable water quality standards. You are ineligible for coverage under this permit if EPA determines prior to your authorization to discharge that your stormwater discharges will not be controlled as necessary such that the receiving water of the United States will not meet an applicable water quality standard. In such case, EPA may notify you that an individual permit application is necessary per Part 1.3.8, or, alternatively, EPA may authorize your coverage under this permit after you implement additional control measures so that your stormwater discharges will be controlled as necessary such that the receiving water of the United States will meet applicable water quality standards.
- 1.1.6.2 Eligibility for "New Dischargers" and "New Sources" for Water-Quality Impaired Waters.** If you discharge to an "impaired water" (as defined in Appendix A), you must do one of the following:
- a. Prevent all exposure to stormwater of the pollutant(s) for which the waterbody is impaired, and retain documentation of procedures taken to prevent exposure onsite with your SWPPP;
 - b. When submitting your NOI in NeT-MSGP, provide the technical information or other documentation to support your claim that the pollutant(s) for which the waterbody

²"New Discharger" means a facility from which there is or may be a discharge, that did not commence the discharge of pollutants at a particular site prior to August 13, 1979, which is not a new source, and which has never received a finally effective NPDES permit for discharges at that site. See 40 CFR 122.2.

"New Source" means any building, structure, facility, or installation from which there is or may be a "discharge of pollutants," the construction of which commenced: i) after promulgation of standards of performance under section 306 of the CWA which are applicable to such source, or ii) after proposal of standards of performance in accordance with section 306 of the CWA which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal. See 40 CFR 122.2.

is impaired is not present at your facility, and retain such documentation with your SWPPP; or

- c. When submitting your NOI in NeT-MSGP, provide either data or other technical documentation, to support a conclusion that the stormwater discharge will be controlled as necessary such that the receiving water of the United States will meet applicable water quality standards and retain such information with your SWPPP. The information you submit must demonstrate:
 - i. For discharges to waters without an EPA-approved or established total maximum daily load (TMDL), that the discharge of the pollutant for which the water is impaired will be controlled as necessary such that the receiving water of the United States will meet applicable water quality standards at the point of discharge to the waterbody; or
 - ii. For discharges to waters with an applicable EPA-approved or established TMDL, that there are, in accordance with 40 CFR 122.4(i), sufficient remaining wasteload allocations in the TMDL to allow your discharge and that existing dischargers to the waterbody are subject to compliance schedules designed to bring the waterbody into attainment with water quality standards (e.g., a reserve allocation for future growth).

You are eligible under Part 1.1.6.2.c if you receive a determination from the applicable EPA Regional Office that your stormwater discharge will be controlled as necessary such that the receiving water of the United States will meet applicable water quality standards and you document the Region's determination in your SWPPP. If the applicable EPA Regional Office fails to respond to you within 30 days after submission of data, you are considered eligible for coverage.

1.1.6.3 Eligibility for "New Dischargers" and "New Sources" for Waters with High Water Quality (Tier 2, 2.5, and 3).

- a. For new dischargers and new sources to Tier 2 or Tier 2.5 waters, your discharge must not lower the water quality of the applicable water. See a list of Tier 2 and Tier 2.5 waters in Appendix L.
- b. For new dischargers and new sources to waters designed by a state or tribe as Tier 3 waters³ (i.e., outstanding national resource waters) for antidegradation purposes under 40 CFR 131.13(a)(3), you are not eligible under this permit and you must apply for an individual permit. See a list of Tier 3 waters in Appendix L.

1.1.7 Eligibility for Discharges to a Federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Site. If you discharge to a federal CERCLA Site listed in Appendix P, you must notify the EPA Region 10 Office when submitting your NOI, and the EPA Region 10 Office must determine that you are eligible for permit coverage. In determining eligibility for coverage under this Part, the EPA Region 10 Office may evaluate whether you are implementing or plan to implement adequate controls and/or procedures to ensure that your discharge will not lead to

³ For the purposes of this permit, your project is considered to discharge to a Tier 2, Tier 2.5, or Tier 3 water if the first water of the United States to which you discharge is identified by a state, tribe, or EPA as a Tier 2, Tier 2.5, or Tier 3 water. For discharges that enter a separate storm sewer system prior to discharge, the first water of the United States to which you discharge is the waterbody that receives the stormwater discharge from the storm sewer system (separate storm sewer systems (MS4s and non-municipal storm sewers systems) do not include combined sewer systems or separate sanitary sewer systems).

recontamination of aquatic media at the CERCLA Site (i.e., your stormwater discharge will be controlled as necessary such that the receiving water of the United States will meet an applicable water quality standard). If it is determined that your facility discharges to a CERCLA Site listed in Appendix P after you have obtained coverage under this permit, you must contact the EPA Region 10 Office and ensure that you either have implemented or will implement adequate controls and/or procedures to ensure that your discharges will not lead to recontamination of aquatic media at the CERCLA Site such that your stormwater discharge will be controlled as necessary such that the receiving water of the United States will meet an applicable water quality standard.

For the purposes of this permit, a facility discharges to a federal CERCLA Site if the discharge flows directly into the site through its own conveyance, or through a conveyance owned by others, such as a municipal separate storm sewer system (MS4).

1.2 Types of Discharges Authorized Under the MSGP⁴

1.2.1 Authorized Stormwater Discharges. If you meet all the eligibility criteria in Part 1.1, then the following discharges from your facility are authorized under this permit:

- 1.2.1.1** Stormwater discharges associated with industrial activity for any primary industrial activities and co-located industrial activities (as defined in Appendix A) except for any stormwater discharges prohibited in Part 8;
- 1.2.1.2** Discharges EPA has designated as needing a stormwater permit as provided in Sector AD;
- 1.2.1.3** Discharges that are not otherwise required to obtain NPDES permit authorization but are mixed with discharges that are authorized under this permit; and
- 1.2.1.4** Stormwater discharges from facilities subject to any of the national stormwater-specific effluent limitations guidelines listed in Table 1-1.

Table 1-1. Stormwater-Specific Effluent Limitations Guidelines

Regulated Discharge	40 CFR Section	MSGP Sector	New Source Performance Standard (NSPS)	New Source Date
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	Part 429, Subpart I	A	Yes	1/26/81
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	Part 418, Subpart A	C	Yes	4/8/74
Runoff from asphalt emulsion facilities	Part 443, Subpart A	D	Yes	7/28/75
Runoff from material storage piles at cement manufacturing facilities	Part 411, Subpart C	E	Yes	2/20/74

⁴ Any discharges not expressly authorized in this permit cannot become authorized or shielded from liability under Clean Water Act (CWA) section 402(k) by disclosure to EPA, state, or local authorities after issuance of this permit via any means, including the Notice of Intent (NOI) to be covered by the permit, the Stormwater Pollution Prevention Plan (SWPPP), or during an inspection.

Regulated Discharge	40 CFR Section	MSGP Sector	New Source Performance Standard (NSPS)	New Source Date
Mine dewatering discharges at crushed stone, construction sand and gravel, or industrial sand mining facilities	Part 436, Subparts B, C, and D	J	No	N/A
Runoff from hazardous waste and non-hazardous waste landfills	Part 445, Subparts A and B	K, L	Yes	2/2/00
Runoff from coal storage piles at steam electric generating facilities	Part 423	O	Yes	11/19/82 (10/8/74) ¹
Runoff containing urea from airfield pavement deicing at existing and new primary airports with 1,000 or more annual non-propeller aircraft departures	Part 449	S	Yes	6/15/1

¹ NSPS promulgated in 1974 were not removed via the 1982 regulation; therefore, wastewaters generated by 40 CFR Part 423-applicable sources that were New Sources under the 1974 regulations are subject to the 1974 NSPS.

1.2.2 Authorized Non-Stormwater Discharges. Below is the list of non-stormwater discharges authorized under this permit. Unless specifically listed in this Part, this permit does not authorize any other non-stormwater discharges requiring NPDES permit coverage and you must either eliminate those discharges or they must be covered under another NPDES permit; this includes the sector-specific non-stormwater discharges that are listed in Part 8 as prohibited (a non-exclusive list is provided only to raise awareness of contaminants or sources of contaminants generally characteristic of certain sectors).

1.2.2.1 Authorized Non-Stormwater Discharges for All Sectors. The following are the only non-stormwater discharges authorized under this permit for all sectors provided that all discharges comply with the effluent limits set forth in Parts 2 and 8.

- a. Discharges from emergency/unplanned fire-fighting activities;
- b. Fire hydrant flushings;
- c. Potable water, including uncontaminated water line flushings;
- d. Uncontaminated condensate from air conditioners, coolers/chillers, and other compressors and from the outside storage of refrigerated gases or liquids;
- e. Irrigation/landscape drainage, provided all pesticides, herbicides, and fertilizers have been applied in accordance with the approved labeling;
- f. Pavement wash waters, provided that detergents or hazardous cleaning products are not used (e.g., bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols), and the wash waters do not come into contact with oil and grease deposits, sources of pollutants associated with industrial activities (see Part 6.2.3), or any other toxic or hazardous materials, unless residues are first cleaned up using dry clean-up methods (e.g., applying absorbent materials and sweeping, using hydrophobic mops/rags) and you have implemented appropriate control measures to minimize discharges of mobilized solids and other pollutants (e.g., filtration, detention, settlement);
- g. External building/structure washdown / power wash water that does not use detergents or hazardous cleaning products (e.g., those containing bleach,

hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols) and you have implemented appropriate control measures to minimize discharges of mobilized solids and other pollutants (e.g., filtration, detention, settlement);

- h. Uncontaminated ground water or spring water;
- i. Foundation or footing drains where flows are not contaminated with process materials;
- j. Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of your facility, but not intentional discharges from the cooling tower (e.g., "piped" cooling tower blowdown; drains); and
- k. Any authorized non-stormwater discharge listed above in this Part 1.2.2 or any stormwater discharge listed in Part 1.2.1 mixed with a discharge authorized by a different NPDES permit and/or a discharge that does not require NPDES permit authorization.

1.2.2.2 Additional Authorized Non-Stormwater Discharge for Sector A Facilities. 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, provided the non-stormwater component of the discharge is in compliance with the non-numeric effluent limits requirements in Part 2.1.2.

1.2.2.3 Additional Authorized Non-Stormwater Discharges for Earth-Disturbing Activities Conducted Prior to Active Mining Activities for Sectors G, H and J Facilities. The following non-stormwater discharges are only authorized for earth-disturbing activities conducted prior to active mining activities, as defined in Part 8.G.3.2, 8.H.3.2, and 8.J.3.2, provided that, with the exception of water used to control dust, these discharges are not routed to areas of exposed soil and all discharges comply with the permit's effluent limits. Once the earth-disturbing activities conducted prior to active mining activities have ceased, the only authorized non-stormwater discharges for Sectors G, H, and J are those listed here in Part 1.2.2.3:

- a. Water used to wash vehicles and equipment, provided that there is no discharge of soaps, solvents, or detergents used for such purposes;
- b. Water used to control dust; and
- c. Dewatering water that has been treated by an appropriate control under Parts 8.G.4.2.9, 8.H.4.2.9, or 8.J.4.2.9.

1.3 Obtaining Authorization to Discharge

1.3.1 Prepare Your Stormwater Pollution Prevention Plan (SWPPP) Prior to Submitting Your Notice of Intent (NOI). You must develop a SWPPP or update your existing SWPPP per Part 6 prior to submitting your NOI for coverage under this permit, per Part 1.3.2 below. You must make your SWPPP publicly available by either attaching it to your NOI, including a URL in your NOI, or providing additional information from your SWPPP on your NOI, per Part 6.4.

1.3.2 How to Submit Your NOI to Get Permit Coverage. To be covered under this permit, you must use EPA's NPDES eReporting Tool for the MSGP (NeT-MSGP) to electronically prepare and submit to EPA a complete and accurate NOI by the deadline applicable to your facility presented in Table 1-2. The NOI certifies to EPA that you are eligible for coverage according to Part 1.1 and provides information on your industrial activities

and related discharges. Per Part 7.1, you must submit your NOI electronically via NeT-MSGP, unless the applicable EPA Regional Office grants you a waiver from electronic reporting, in which case you may use the paper NOI form in Appendix G. To access NeT-MSGP, go to <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities#accessingmsgp>

- 1.3.3** **Deadlines for Submitting Your NOI and Your Official Date of Permit Coverage.** Table 1-2 provides the deadlines for submitting your NOI and your official start date of permit coverage.

Table 1-2. NOI Submittal Deadlines and Discharge Authorization Dates

Category of Facility/Operator	NOI Submission Deadline	Discharge Authorization Date^{1, 2}
Existing MSGP facility. Operators of industrial activities whose stormwater discharges were covered under the 2015 MSGP.	No later than May 30, 2021.	30 calendar days after EPA notifies you that it has received a complete NOI, unless EPA notifies you that your authorization has been denied or delayed. Note: You must review and update your SWPPP to ensure that this permit's requirements are addressed prior to submitting your NOI. Provided you submit your NOI in accordance with the deadline, your authorization under the 2015 MSGP is automatically continued until you have been granted coverage under this permit or an alternative permit, or coverage is otherwise terminated.
Operator operating consistent with EPA's No Action Assurance and submitted an Intent to Operate (ITO) form. Operators of industrial activities who commenced discharging between June 4, 2020 and March 1, 2021 and have been operating consistent with EPA's June 3, 2020 'No Action Assurance for the NPDES Stormwater Multi-Sector General Permit for Industrial Activities.'	As soon as possible, but see the June 3, 2020 'No Action Assurance for the NPDES Stormwater Multi-Sector General Permit for Industrial Activities' (and any updates to that document) for additional guidance on deadlines.	30 calendar days after EPA notifies you that it has received a complete NOI, unless EPA notifies you that your authorization has been denied or delayed.
New facility without MSGP coverage. Operators of industrial activities that will commence discharging after March 1, 2021.	At least 30 calendar days prior to commencing discharge.	30 calendar days after EPA notifies you that it has received a complete NOI, unless EPA notifies you that your authorization has been denied or delayed.
Existing facility covered under an alternative permit. Operators seeking coverage for stormwater discharges previously covered under an individual permit or an alternative general permit.	At least 30 calendar days prior to commencing discharge.	

Category of Facility/Operator	NOI Submission Deadline	Discharge Authorization Date ^{1, 2}
Existing MSGP facility with a new operator. New operators of existing industrial activities with stormwater discharges previously authorized under the 2021 MSGP.	At least 30 calendar days prior to the date of transfer of control to the new operator.	
Existing facility without MSGP coverage. Operators of industrial activities that commenced discharging prior to March 1, 2021, but whose stormwater discharges were not covered under the 2015 MSGP or another NPDES permit and have not been operating consistent with EPA's No Action Assurance for EPA's NPDES MSGP.	Immediately; your stormwater discharges are currently unpermitted. ¹	

¹ If you have missed the deadline to submit your NOI, any and all discharges from your industrial activities will continue to be unauthorized under the CWA until they are covered by this or a different NPDES permit. EPA may take enforcement action for any unpermitted discharges that occur between the commencement of discharging and discharge authorization.

² Discharges are not authorized if your NOI is incomplete or inaccurate or if you are ineligible for permit coverage.

1.3.4 Modifying your NOI. If after submitting your NOI, you need to correct or update any fields, you may do so by submitting a "Change NOI" form using NeT-MSGP. Per Part 7.1, you must submit your Change NOI electronically via NeT-MSGP, unless the EPA Regional Office grants you a waiver from electronic reporting, in which case you may use the suggested format for the paper Change NOI form.

1.3.4.1 For an existing operator, if any of the information supplied on the NOI changes, you must submit a Change NOI form within thirty (30) calendar days after the change occurs.

1.3.4.2 At a facility where there is a transfer in operator or a new operator takes over operational control at an existing facility, the new operator must submit a new NOI no later than thirty (30) calendar days after a change in operators. The previous operator must submit a Notice of Termination (NOT) no later than thirty (30) calendar days after MSGP coverage becomes active for the new operator, as specified in Part 1.4.

1.3.5 Requirement to Post a Sign of your Permit Coverage. You must post a sign or other notice of your permit coverage at a safe, publicly accessible location in close proximity to your facility. Public signage is not required where other laws or local ordinances prohibit such signage, in which case you must document in your SWPPP a brief explanation for why you cannot post a sign and a reference to the law or ordinance. You must use a font large enough to be readily viewed from a public right-of-way and perform periodic maintenance of the sign to ensure that it remains legible, visible, and factually correct. At minimum, the sign must include:

1.3.5.1 The following statement: "[Name of facility] is permitted for industrial stormwater discharges under the U.S. EPA's Multi-Sector General Permit (MSGP)";

1.3.5.2 Your NPDES ID number;

1.3.5.3 A contact phone number for obtaining additional facility information;

1.3.5.4 One of the following:

- a. The Uniform Resource Locator (URL) for the SWPPP (if available), and the following statement: "To report observed indicators of stormwater pollution, contact [optional: include facility point of contact and] EPA at: [include the applicable MSGP Regional Office contact information found at <https://www.epa.gov/npdes/contact-us-stormwater#regional>]; or
- b. The following statement: "To obtain the Stormwater Pollution Prevention Plan (SWPPP) for this facility or to report observed indicators of stormwater pollution, contact [optional: include facility point of contact and] EPA at [include the applicable MSGP Regional Office contact information found at <https://www.epa.gov/npdes/contact-us-stormwater#regional>]."

1.3.6 Your Official End Date of Permit Coverage. Once covered under this permit, your coverage will last until the date that:

- 1.3.6.1** You terminate permit coverage by submitting a Notice of Termination (NOT) per Part 1.4; or
- 1.3.6.2** You receive coverage under a different NPDES permit or a reissued or replacement version of this permit after it expires on February 28, 2026; or
- 1.3.6.3** You fail to submit an NOI for coverage under a reissued or replacement version of this permit before the required deadline.

1.3.7 Continuation of Coverage for Existing Operators After the Permit Expires

- 1.3.7.1** Note that if the 2021 MSGP is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with section 558(c) of the Administrative Procedure Act (see 40 CFR 122.6) and remain in force and effect for operators that were covered prior to its expiration. All operators authorized to discharge prior to the expiration date of the 2021 MSGP will automatically remain covered under the 2021 MSGP until the earliest of:
 - a. The date the operator is authorized for coverage under a new version of the MSGP following the timely submittal of a complete and accurate NOI. Note that if a timely NOI for coverage under the reissued or replacement permit is not submitted, coverage will terminate on the date that the NOI was due; or
 - b. The date of the submittal of a Notice of Termination; or
 - c. Issuance of an individual permit for the facility's discharge(s); or
 - d. A final permit decision by EPA not to reissue the MSGP, at which time EPA will identify a reasonable time period for covered operators to seek coverage under an alternative general permit or an individual permit. Coverage under the 2021 MSGP will terminate at the end of this time period.
- 1.3.7.2** EPA reserves the right to modify or revoke and reissue the 2021 MSGP under 40 CFR 122.62 and 63, in which case operators will be notified of any relevant changes or procedures to which they may be subject. If EPA fails to issue another general permit prior to the expiration of a previous one, EPA does not have the authority to provide coverage to industrial operators not already covered under that prior general permit. If the five-year expiration date for the 2021 MSGP has passed and a new MSGP has not

been reissued, new operators seeking discharge authorization should contact EPA regarding the options available, such as applying for individual permit coverage.

- 1.3.8 Coverage Under Alternative Permits.** EPA may require you to apply for and/or obtain authorization to discharge under an alternative permit, i.e., either an individual NPDES permit or an alternative NPDES general permit, in accordance with 40 CFR 122.64 and 124.5. If EPA requires you to apply for an alternative permit, the Agency will notify you in writing that a permit application or NOI is required. This notification will include a brief statement of the reasons for this decision and will contain alternative permit application or NOI requirements, including deadlines for completing your application or NOI.

- 1.3.8.1 Denial of Coverage for New or Previously Unpermitted Facilities.** For new or previously unpermitted facilities, following the submittal of your NOI, you may be denied coverage under this permit and must apply for and/or obtain authorization to discharge under an alternative permit.

- 1.3.8.2 Loss of Authorization Under the 2021 MSGP for Existing Permitted Facilities.** If your stormwater discharges are covered under this permit, you may receive a written notification that you must either apply for coverage under an individual NPDES permit or submit an NOI for coverage under an alternative general NPDES permit. In addition to the reasons for the decision and alternative permit application or NOI deadlines, the notice will include a statement that on the effective date of your alternative permit coverage, your coverage under the 2021 MSGP will terminate. EPA will terminate your MSGP permit coverage in NeT-MSGP at that time. EPA may grant additional time to submit the application or NOI if you request it. If you fail to submit an alternative permit application or NOI as required by EPA, then your authorization to discharge under the 2021 MSGP is terminated at the end of the day EPA required you to submit your alternative permit application or NOI. EPA may take appropriate enforcement action for any unpermitted discharge.

- 1.3.8.3 Operators Requesting Coverage Under an Alternative Permit.** You may request to be covered under an individual permit. In such a case, you must submit an individual permit application in accordance with the requirements of 40 CFR 122.28(b)(3)(iii), with reasons supporting the request, to the applicable EPA Regional Office listed in Part 7.8 of this permit. The request may be granted by issuance of an individual permit if your reasons are adequate to support the request. When you are authorized to discharge under an alternative permit, your authorization to discharge under the 2021 MSGP is terminated on the effective date of the alternative permit.

1.4 Terminating Permit Coverage

- 1.4.1 How to Submit your Notice of Termination (NOT) to Terminate Permit Coverage.** To terminate permit coverage, you must use EPA's NPDES eReporting Tool for the MSGP (NeT-MSGP) to electronically prepare and submit to EPA a complete and accurate NOT. Per Part 7.1, you must submit your NOT electronically via NeT-MSGP, unless the EPA Regional Office grants you a waiver from electronic reporting, in which case you may use the paper NOT form in Appendix H. To access NeT-MSGP, go to <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities#accessingmsgp>

Your authorization to discharge under this permit terminates at midnight of the day that you are notified that your complete NOT has been processed. If you submit a NOT without meeting one or more of the conditions in Part 1.4.2 then your NOT is not valid.

Until you terminate permit coverage, you must comply with all conditions and effluent limitations in the permit.

1.4.2 When to Submit Your Notice of Termination. You must submit a NOT within 30 days after one or more of the following conditions have been met:

1.4.2.1 A new owner or operator has received authorization to discharge under this permit; or

1.4.2.2 You have ceased operations at the facility and/or there are not or no longer will be discharges of stormwater associated with industrial activity from the facility, and you have already implemented necessary sediment and erosion controls per Part 2.1.2.5; or

1.4.2.3 You are a Sector G, H, or J facility and you have met the applicable termination requirements; or

1.4.2.4 You obtained coverage under an individual or alternative general permit for all discharges required to be covered by an NPDES permit, unless EPA terminates your coverage for you per Part 1.3.8.

1.5 Conditional Exclusion for No Exposure

If you are covered by this permit and become eligible for a “no exposure” exclusion from permitting under 40 CFR 122.26(g), you may file a No Exposure Certification (NEC). You are no longer required to have a permit upon submission of a complete and accurate NEC to EPA. If you are no longer required to have permit coverage because of a no exposure exclusion and have submitted a NEC form to EPA, you are not required to submit a NOT. You must submit a NEC form to EPA once every five years.

You must use EPA’s NPDES eReporting Tool for the MSGP (NeT-MSGP) to electronically prepare and submit to EPA a complete and accurate NEC. Per Part 7.1, you must submit your NEC electronically via NeT-MSGP, unless the applicable EPA Regional Office grants you a waiver from electronic reporting, in which case you may use the paper NEC form in Appendix K. To access NeT-MSGP, go to <https://cdxnodengn.epa.gov/net-msgp/action/login>

1.6 Permit Compliance

Any noncompliance with any of the requirements of this permit constitutes a violation of this permit, and thus is a violation of the CWA. As detailed in Part 5, failure to take any required corrective actions constitutes an independent, additional violation of this permit, in addition to any original violation that triggered the need for a corrective action. As such, any actions and time periods specified for remedying noncompliance do not absolve you of the initial underlying noncompliance.

Where an Additional Implementation Measure (AIM) is triggered by an event that does not itself constitute permit noncompliance (i.e., an exceedance of an applicable benchmark), there is no permit violation provided you comply with the required responses within the relevant deadlines established in Part 5.

1.7 Severability

Invalidation of a portion of this permit does not necessarily render the whole permit invalid. EPA’s intent is that the permit is to remain in effect to the extent possible; in the

event that any part of this permit is invalidated, EPA will advise the regulated community as to the effect of such invalidation.

2. Control Measures and Effluent Limits

In the technology-based limits included in Parts 2.1 and 8, the term “minimize” means to reduce and/or eliminate to the extent achievable using stormwater control measures (SCMs) (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practice. The term “infeasible” means not technologically possible or not economically practicable and achievable in light of best industry practices. EPA notes that it does not intend for any permit requirement to conflict with state water rights law.

2.1 Stormwater Control Measures

You must select, design, install, and implement stormwater control measures (including best management practices) to minimize pollutant discharges that address the selection and design considerations in Part 2.1.1, meet the non-numeric effluent limits in Part 2.1.2, meet limits contained in applicable effluent limitations guidelines in Part 2.1.3, and meet the water quality-based effluent limitations in Part 2.2.

The selection, design, installation, and implementation of control measures to comply with Part 2 must be in accordance with good engineering practices and manufacturer’s specifications. Note that you may deviate from such manufacturer’s specifications where you provide justification for such deviation and include documentation of your rationale in the part of your SWPPP that describes your control measures, consistent with Part 6.2.4. You must modify your stormwater control measures per Part 5.1 if you find that your control measures are not achieving their intended effect of minimizing pollutant discharges (i.e., your discharges will be controlled as necessary such that the receiving water of the United States will meet applicable water quality standards or meet any of the other non-numeric effluent limits in this permit). Regulated stormwater discharges from your facility include stormwater run-on that commingles with stormwater discharges associated with industrial activity at your facility.

2.1.1 Stormwater Control Measure Selection and Design Considerations. You must consider the following when selecting and designing control measures:

- 2.1.1.1** Preventing stormwater from coming into contact with polluting materials is generally more effective, and less costly, than trying to remove pollutants from stormwater;
- 2.1.1.2** Using stormwater control measures in combination may be more effective than using control measures in isolation for minimizing pollutants in your stormwater discharge;
- 2.1.1.3** Assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to designing effective stormwater control measures that will achieve the limits in this permit;
- 2.1.1.4** Minimizing impervious areas at your facility and infiltrating stormwater onsite (including bioretention cells, green roofs, and pervious pavement, among other approaches) can reduce the frequency and volume of discharges and improve ground water recharge and stream base flows in local streams, although care must be taken to avoid ground water contamination;

- 2.1.1.5** Attenuating flow using open vegetated swales and natural depressions can reduce in-stream impacts of erosive flows;
- 2.1.1.6** Conserving and/or restoring riparian buffers will help protect streams from stormwater discharges and improve water quality;
- 2.1.1.7** Using treatment interceptors (e.g., swirl separators and sand filters) maybe appropriate in some instances to minimize the discharge of pollutants; and
- 2.1.1.8** Implementing structural improvements, enhanced/resilient pollution prevention measures, and other mitigation measures can help to minimize impacts from stormwater discharges from major storm events such as hurricanes, storm surge, extreme/heavy precipitation,⁵ and flood events. If such stormwater control measures are already in place due to existing requirements mandated by other state, local or federal agencies, you should document in your SWPPP a brief description of the controls and a reference to the existing requirement(s). If your facility may be exposed to or has previously experienced such major storm events,⁶ additional stormwater control measures that may be considered include, but are not limited to:
- a.** Reinforce materials storage structures to withstand flooding and additional exertion of force;
 - b.** Prevent floating of semi-stationary structures by elevating to the Base Flood Elevation (BFE)⁷ level or securing with non-corrosive device;
 - c.** When a delivery of exposed materials is expected, and a storm is anticipated within 48 hours, delay delivery until after the storm or store materials as appropriate (refer to emergency procedures);
 - d.** Temporarily store materials and waste above the BFE level;
 - e.** Temporarily reduce or eliminate outdoor storage;
 - f.** Temporarily relocate any mobile vehicles and equipment to higher ground;
 - g.** Develop scenario-based emergency procedures for major storms that are complementary to regular stormwater pollution prevention planning and identify emergency contacts for staff and contractors; and

⁵ Heavy precipitation refers to instances during which the amount of rain or snow experienced in a location substantially exceeds what is normal. What constitutes a period of heavy precipitation varies according to location and season. Heavy precipitation does not necessarily mean the total amount of precipitation at a location has increased—just that precipitation is occurring in more intense or more frequent events.

⁶ To determine if your facility is susceptible to an increased frequency of major storm events that could impact the discharge of pollutants in stormwater, you may reference FEMA, NOAA, or USGS flood map products at https://www.usgs.gov/faqs/where-can-i-find-flood-maps?qt-news_science_products=0#qt-news_science_products.

⁷ Base Flood Elevation (BFE) is the elevation of surface water resulting from a flood that has a 1% chance of equaling or exceeding that level in any given year. The BFE is shown on the Flood Insurance Rate Map (FIRM) for zones AE, AH, A1–A30, AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO, V1–V30 and VE. (Source: <https://www.fema.gov/node/404233>). The FEMA Flood Map Service Center can be accessed through <https://msc.fema.gov/portal/search>.

- h. Conduct staff training for implementing your emergency procedures at regular intervals.

Note: Part 2.1.1 requires that you must consider Parts 2.1.1.1 through 2.1.1.8 when selecting and designing control measures to minimize pollutant discharges via stormwater. Part 2.1.1 does not require nor prescribe specific control measure to be implemented; however, you must document in your SWPPP per Part 6.2.4 the considerations made to select and design control measures at your facility to minimize pollutants discharged via stormwater.

- 2.1.2 **Non-Numeric Technology-Based Effluent Limits (BPT/BAT/BCT).**⁸ You must comply with the following non-numeric effluent limits as well as any sector-specific non-numeric effluent limits in Part 8, except where otherwise specified.

Effluent limit requirements in Part 2.1.2 that do not involve the site-specific selection of a control measure or are specific activity requirements (e.g., "Cleaning catch basins when the depth of debris reaches two-thirds (2/3) of the sump depth, in line with manufacturer specifications, whichever is lower, and keeping the debris surface at least six inches below the lowest outlet pipe") are marked with an asterisk (*). When documenting in your SWPPP, per Part 6, how you will comply with the requirements marked with an asterisk, you have the option of including additional information or you may just "copy-and-paste" those effluent limits word-for-word from the permit into your SWPPP without providing additional documentation (see Part 6.2.4).

- 2.1.2.1 **Minimize Exposure.** You 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 stormwater in order to minimize pollutant discharges by either locating these industrial materials and activities inside or protecting them with storm resistant coverings. Unless infeasible, you must also:
 - a. Use grading, berming or curbing to prevent discharges of contaminated flows and divert run-on away from these areas;
 - b. Locate materials, equipment, and activities so that potential leaks and spills are contained or able to be contained or diverted before discharge;
 - c. Store leaky vehicles and equipment indoors;
 - d. Perform all vehicle and/or equipment cleaning operations indoors, under cover, or in bermed areas that prevent discharges and run-on and also that capture any overspray; and
 - e. Drain fluids from equipment and vehicles that will be decommissioned, and, for any equipment and vehicles that will remain unused for extended periods of time, inspect at least monthly for leaks.

⁸ BPT is Best Practicable Control Technology Currently Available, as set forth in CWA section 304(b)(1) and Appendix A; BAT is Best Available Technology Economically Achievable, as set forth in CWA section 304(b)(2) and Appendix A; and BCT is Best Conventional Pollutant Control Technology, as set forth in CWA section 304(b)(4) and Appendix A.

Note: Industrial materials do not need to be enclosed or covered if stormwater from affected areas does not discharge pollutants to waters of the United States or if discharges are authorized under another NPDES permit.

2.1.2.2 Good Housekeeping. You must keep clean all exposed areas that are potential sources of pollutants. You must perform good housekeeping measures in order to minimize pollutant discharges, including but not limited to, the following:

- a. Sweep or vacuum at regular intervals or, alternatively, wash down the area and collect and/or treat, and properly dispose of the washdown water;
- b. Store materials in appropriate containers;
- c. 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). Consistent with Part 1.2.2 above, this permit does not authorize dry weather discharges from dumpsters or roll off boxes;*
- d. 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.
- e. Plastic Materials Requirements: Facilities that handle pre-production plastic must implement control measures to eliminate discharges of plastic in stormwater.⁹ Examples of plastic material required to be addressed as stormwater pollutants include plastic resin pellets, powders, flakes, additives, regrind, scrap, waste and recycling.

2.1.2.3 Maintenance.

- a. **Maintenance Activities.** You must maintain all control measures that are used to achieve the effluent limits in this permit in effective operating condition, as well as all industrial equipment and systems, in order to minimize pollutant discharges. This includes:
 - ii. Performing inspections and preventive maintenance of stormwater drainage, source controls, treatment systems, and plant equipment and systems that could fail and result in discharges of pollutants via stormwater.
 - iii. Maintaining non-structural control measures (e.g., keep spill response supplies available, personnel appropriately trained).
 - iv. Inspecting and maintaining baghouses at least quarterly to prevent the escape of dust from the system and immediately removing any accumulated dust at the base of the exterior baghouse.*

⁹ Examples of appropriate control measures include but are not limited to: installing a containment system, or other control, at each on-site storm drain discharge point down gradient of areas containing plastic material, designed to trap all particles retained by a 1 mm mesh screen; using a durable sealed container designed not to rupture under typical loading and unloading activities at all points of plastic transfer and storage; using capture devices as a form of secondary containment during transfers, loading, or unloading plastic materials, such as catch pans, tarps, berms or any other device that collects errant material; having a vacuum or vacuum-type system for quick cleanup of fugitive plastic material available for employees; for facilities that maintain outdoor storage of plastic materials, do so in a durable, permanent structure that prevents exposure to precipitation that could cause the material to be discharged via stormwater.

- v. Cleaning catch basins when the depth of debris reaches two-thirds (2/3) of the sump depth, or in line with manufacturer specifications, whichever is lower, and keeping the debris surface at least six inches below the lowest outlet pipe.*

b. **Maintenance Deadlines.**

- ii. If you find that your control measures need routine maintenance, you must conduct the necessary maintenance immediately in order to minimize pollutant discharges.
- iii. If you find that your control measures need to be repaired or replaced, you must immediately take all reasonable steps to prevent or minimize the discharge of pollutants until the final repair or replacement is implemented, including cleaning up any contaminated surfaces so that the material will not be discharged during subsequent storm events. Final repairs/replacement of stormwater controls should be completed as soon as feasible but must be no later than the timeframe established in Part 5.1.3 for corrective actions, i.e., within 14 days or, if that is infeasible, within 45 days. If the completion of stormwater control repairs/replacement will exceed the 45 day timeframe, you may take the minimum additional time necessary to complete the maintenance, provided that you notify the EPA Regional Office of your intention to exceed 45 days, and document in your SWPPP your rationale for your modified maintenance timeframe. If a control measure was never installed, was installed incorrectly or not in accordance with Parts 2 and/or 8, or is not being properly operated or maintained, you must conduct corrective action as specified in Part 5.1.

Note: In this context, the term "immediately" means the day you identify that a control measure needs to be maintained, repaired, or replaced, you must take all reasonable steps to minimize or prevent the discharge of pollutants until you can implement a permanent solution. However, if you identify a problem too late in the work day to initiate action, you must perform the action the following work day morning. "All reasonable steps" means you must respond to the conditions triggering the action, such as, cleaning up any exposed materials that may be discharged in a storm event (e.g., through sweeping, vacuuming) or making arrangements (i.e., scheduling) for a new SCM to be installed.

2.1.2.4 Spill Prevention and Response. You must minimize the potential for leaks, spills and other releases that may be exposed to stormwater and develop plans for effective response to such spills if or when they occur in order to minimize pollutant discharges. You must conduct spill prevention and response measures, including but not limited to, the following:

- a. Clean up spills and leaks promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants;
- b. Use drip pans and absorbents if leaky vehicles and/or equipment are stored outdoors;
- c. Use spill/overflow protection equipment;
- d. Plainly label containers (e.g., "Used Oil," "Spent Solvents," "Fertilizers and Pesticides") that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur;*

- e. Implement procedures for material storage and handling, including the use of secondary containment and barriers between material storage and traffic areas, or a similarly effective means designed to prevent the discharge of pollutants from these areas;
- f. Develop training on the procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases. As appropriate, execute such procedures as soon as possible;
- g. Keep spill kits onsite, located near areas where spills may occur or where a rapid response can be made; and
- h. Notify appropriate facility personnel when a leak, spill, or other release occurs.

Where a leak, spill or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302, occurs during a 24-hour period, you must notify the National Response Center (NRC) at (800) 424-8802 or, in the Washington, DC, metropolitan area, call (202) 267-2675 in accordance with the requirements of 40 CFR Part 110, 40 CFR Part 117, and 40 CFR Part 302 as soon as you have knowledge of the discharge. State or local requirements may necessitate reporting spills or discharges to local emergency response, public health, or drinking water supply agencies. Contact information must be in locations that are readily accessible and available.

2.1.2.5 Erosion and Sediment Controls. To minimize pollutant discharges in stormwater, you must minimize erosion by stabilizing exposed soils at your facility and placing flow velocity dissipation devices at discharge locations to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points. You must also use structural and non-structural control measures to minimize the discharge of sediment. If you use polymers and/or other chemical treatments as part of your controls, you must identify the polymers and/or chemicals used and the purpose in your SWPPP. There are many resources available to help you select appropriate SCMs for erosion and sediment control, including EPA's Stormwater Discharges from Construction Activities website at: <https://www.epa.gov/npdes/stormwater-discharges-construction-activities>.

2.1.2.6 Management of Stormwater. You must divert, infiltrate, reuse, contain, or otherwise reduce stormwater to minimize pollutants in your discharges. In selecting, designing, installing, and implementing appropriate control measures, you are encouraged to consult with EPA's resources relating to stormwater management, including the sector-specific *Industrial Stormwater Fact Sheet Series*, (<https://www.epa.gov/npdes/stormwater-discharges-industrial-activities#factsheets>) and any similar state or tribal resources.

2.1.2.7 Salt Storage Piles or Piles Containing Salt. You 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, in order to minimize pollutant discharges. You 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 pursuant to this permit if stormwater from the piles is not discharged or if discharges from the piles are authorized under another NPDES permit.

2.1.2.8 Employee Training.

- a. **Types of Personnel Who Require Training.** You must train all employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to comply with this permit (e.g., inspectors, maintenance personnel), including all members of your stormwater pollution prevention team. You must ensure the following personnel understand the requirements of this permit and their specific responsibilities with respect to those requirements:
- i. Personnel who are responsible for the design, installation, maintenance, and/or repair of controls (including pollution prevention measures);
 - ii. Personnel responsible for the storage and handling of chemicals and materials that could become pollutants discharged via stormwater;
 - iii. Personnel who are responsible for conducting and documenting monitoring and inspections as required in Parts 3 and 4; and
 - iv. Personnel who are responsible for taking and documenting corrective actions as required in Part 5.
- b. **Areas of Required Training.** Personnel must be trained in at least 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):
- i. An overview of what is in the SWPPP;
 - ii. Spill response procedures, good housekeeping, maintenance requirements, and material management practices;
 - iii. The location of all the controls required by this permit, and how they are to be maintained;
 - iv. The proper procedures to follow with respect to the permit's pollution prevention requirements; and
 - v. When and how to conduct inspections, record applicable findings, and take corrective actions; and
 - vi. The facility's emergency procedures, if applicable per Part 2.1.1.8.

2.1.2.9 Non-Stormwater Discharges. You must evaluate for the presence of non-stormwater discharges. You must eliminate any non-stormwater discharges not explicitly authorized in Part 1.2.2 or covered by another NPDES permit, including vehicle and equipment/tank wash water (except for those authorized in Part 1.2.2.3 for Sectors G, H, and J). If not covered under a separate NPDES permit, wastewater, wash water and any other unauthorized non-stormwater must be discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements, or otherwise disposed of appropriately.

2.1.2.10 Dust Generation and Vehicle Tracking of Industrial Materials. You must minimize generation of dust and off-site tracking of raw, final, or waste materials in order to minimize pollutants discharged via stormwater.

- 2.1.3** **Numeric Effluent Limitations Based on Effluent Limitations Guidelines.** If you are in an industrial category subject to one of the effluent limitations guidelines identified in Table 4-3 (see Part 4.2.3.1), you must meet the effluent limits referenced in Table 2-1 below:

Table 2-1. Applicable Effluent Limitations Guidelines

Regulated Activity	40 CFR Part/Subpart	Effluent Limit
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	Part 429, Subpart I	See Part 8.A.7
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	Part 418, Subpart A	See Part 8.C.4
Runoff from asphalt emulsion facilities	Part 443, Subpart A	See Part 8.D.4
Runoff from material storage piles at cement manufacturing facilities	Part 411, Subpart C	See Part 8.E.5
Mine dewatering discharges at crushed stone, construction sand and gravel, or industrial sand mining facilities	Part 436, Subparts B, C, or D	See Part 8.J.9
Runoff from hazardous waste landfills	Part 445, Subpart A	See Part 8.K.6
Runoff from non-hazardous waste landfills	Part 445, Subpart B	See Part 8.L.10
Runoff from coal storage piles at steam electric generating facilities	Part 423	See Part 8.O.8
Runoff containing urea from airfield pavement deicing at existing and new primary airports with 1,000 or more annual non-propeller aircraft departures	Part 449	See Part 8.S.8

2.2 **Water Quality-Based Effluent Limitations**

- 2.2.1** **Water Quality Standards.** Your discharge must be controlled as necessary to meet applicable water quality standards of all affected states.

EPA expects that compliance with the conditions in this permit will control discharges as necessary to meet applicable water quality standards. If at any time you become aware, or EPA determines, that your stormwater discharge will not be controlled as necessary such that the receiving water of the United States will not meet an applicable water quality standard, you must take corrective action(s) as required in Part 5.1 and document the corrective actions as required in Part 5.3. You must also comply with any additional requirements that your state or tribe requires in Part 9.

EPA may also require that you undertake additional control measures (to meet the narrative water quality-based effluent limit above) on a site-specific basis, or require you to obtain coverage under an individual permit, if information in your NOI, required reports, or from other sources indicates that your discharges are not controlled as necessary such that the receiving water of the United States will not meet applicable water quality standards. You must implement all measures necessary to be consistent with an available wasteload allocation in an EPA-established or approved TMDL.

- 2.2.2** **Discharges to Water Quality-Impaired Waters.** You are considered to discharge to an impaired water if the first water of the United States to which your discharge is

identified by a state, tribe or EPA as not meeting an applicable water quality standard, and:

- Requires development of a TMDL (pursuant to section 303(d) of the CWA);
- Is addressed by an EPA-approved or established TMDL; or
- Is not in either of the above categories but the waterbody is covered by a pollution control program that meets the requirements of 40 CFR 130.7(b)(1).

Note: For discharges that enter a separate storm sewer system¹⁰ prior to discharge, the first water of the United States to which you discharge is the waterbody that receives the water from the storm sewer system.

2.2.2.1 Existing Discharge to an Impaired Water with an EPA-Approved or Established TMDL. If you discharge to an impaired water with an EPA-approved or established TMDL, EPA will inform you whether any additional measures are necessary for your discharge to be consistent with the assumptions and requirements of the applicable TMDL and its wasteload allocation, or if coverage under an individual permit is necessary per Part 1.3.8.

2.2.2.2 Existing Discharger to an Impaired Water without an EPA-Approved or Established TMDL. If you discharge to an impaired water without an EPA-approved or established TMDL, you are still required to comply with Part 2.2.1 and the monitoring requirements of Part 4.2.5.1. Note that the impaired waters monitoring requirements of Part 4.2.5.1 also apply where EPA determines that your discharge is not controlled as necessary such that the receiving water of the United States will not meet applicable water quality standards in an impaired downstream water segment, even if your discharge is initially to a receiving water(s) that is not identified as impaired according to Part 2.2.2.

2.2.2.3 New Discharger or New Source to an Impaired Water. If your authorization to discharge under this permit relied on Part 1.1.6.2 for a new discharger or a new source to an impaired water, you must implement and maintain any measures that enabled you to become eligible under Part 1.1.6.2, and modify such measures as necessary pursuant to any Part 5 corrective actions. You also must comply with Part 2.2.1 and the monitoring requirements of Parts 4.2.5.1.

2.2.3 Tier 2 Antidegradation Requirements for New Dischargers, New Sources, or Increased Discharges. If you are a new discharger or a new source (as defined in Appendix A), or an existing discharger required to notify EPA of an increased discharge consistent with Part 7.6 (i.e., a “planned changes” report), and you discharge directly to waters designated by a state or tribe as Tier 2 or Tier 2.5 for antidegradation purposes under 40 CFR 131.12(a), EPA may require that you undertake additional control measures as necessary to ensure compliance with the applicable antidegradation requirements, or notify you that an individual permit application is necessary in accordance with Part 1.3.8. See list of Tier 2 and 2.5 waters in Appendix L.

2.3 Requirements Relating to Endangered Species, Historic Properties, and CERCLA Sites

If your eligibility under either Part 1.1.4, Part 1.1.5, and/or Part 1.1.7 was made possible through your, or another operator’s, agreement to undertake additional measures, you must comply with all such measures to maintain eligibility under the MSGP. Note that if

¹⁰ Separate storm systems include both municipal storm sewer systems (MS4s) and non-municipal separate storm sewers. Separate storm systems do not include combined sewer systems or sanitary sewer systems.

at any time you become aware, or EPA determines, that your discharges and/or discharge-related activities have the potential to adversely affect listed species and/or critical habitat, have an effect on historic properties, or that your facility discharges to a CERCLA Site listed in Appendix P after you have obtained coverage under this permit, EPA may inform you of the need to implement additional measures on a site-specific basis to meet the effluent limits in this permit, or require you to obtain coverage under an individual permit.

3. Inspections

3.1 Routine Facility Inspections

3.1.1 Inspection Personnel. Qualified personnel (as defined in Appendix A) must perform the inspections. The qualified personnel may be a member of your stormwater pollution prevention team, or if the qualified personnel is a third-party you hire (i.e., a contractor), at least one member of your stormwater pollution prevention team must participate in the inspection. Inspectors must consider the results of visual and analytical monitoring (if any) for the past year when planning and conducting inspections.

3.1.2 Areas that You Must Inspect. During normal facility operating hours, the qualified personnel must conduct inspections of areas of the facility covered by the requirements in this permit, including, but not limited to, the following:

3.1.2.1 Areas where industrial materials or activities are exposed to stormwater;

3.1.2.2 Areas identified in the SWPPP and those that are potential pollutant sources (see Part 6.2.3);

3.1.2.3 Areas where spills and leaks have occurred in the past three years;

3.1.2.4 Discharge points; and

3.1.2.5 Control measures used to comply with the effluent limits contained in this permit.

3.1.3 What You Must Look for During an Inspection. During the inspection, the qualified personnel must examine or look out for, including, but not limited to, the following:

3.1.3.1 Industrial materials, residue or trash that may have or could come into contact with stormwater;

3.1.3.2 Leaks or spills from industrial equipment, drums, tanks and other containers;

3.1.3.3 Offsite tracking of industrial or waste materials, or sediment where vehicles enter or exit the site;

3.1.3.4 Tracking or blowing of raw, final or waste materials from areas of no exposure to exposed areas;

3.1.3.5 Erosion of soils at your facility, channel and streambank erosion and scour in the immediate vicinity of discharge points, per Part 2.1.2.5;

3.1.3.6 Non-authorized non-stormwater discharges, per Part 2.1.2.9;

3.1.3.7 Control measures needing replacement, maintenance or repair; and

- 3.1.3.8** During an inspection occurring during a stormwater event or stormwater discharge, you must observe control measures implemented to comply with effluent limits to ensure they are functioning correctly. You must also observe discharge points, as defined in Appendix A, during this inspection. If such discharge locations are inaccessible, you must inspect nearby downstream locations.
- 3.1.4** **Inspection Frequency.** The qualified personnel must conduct inspections at least quarterly (i.e., once each calendar quarter), or in some instances more frequently (e.g., monthly). Increased frequency may be appropriate for some types of equipment, processes and stormwater control measures, or areas of the facility with significant activities and materials exposed to stormwater. At least once each calendar year, the routine inspection must be conducted during a period when a stormwater discharge is occurring.
- 3.1.5** **Exceptions to Routine Facility Inspections for Inactive and Unstaffed Facilities.** The requirement to conduct facility inspections on a routine basis does not apply at a facility that is inactive and unstaffed, as long as there are no industrial materials or activities exposed to stormwater. Such a facility is only required to conduct an annual site inspection in accordance with Part 3.1. To invoke this exception, you must indicate that your facility is inactive and unstaffed on your NOI. If you are already covered under the permit and your facility has changed from active to inactive and unstaffed, you must modify and re-certify your NOI. You must also include a statement in your SWPPP per Part 6.2.5.2 indicating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to stormwater, in accordance with the substantive requirements in 40 CFR 122.26(g)(4)(iii). The statement must be signed and certified in accordance with Appendix B, Subsection 11. If circumstances change and industrial materials or activities become exposed to stormwater or your facility becomes active and/or staffed, this exception no longer applies, and you must immediately resume routine facility inspections. If you are not qualified for this exception at the time you become authorized under this permit, but during the permit term you become qualified because your facility becomes inactive and unstaffed, and there are no industrial materials or activities exposed to stormwater, you must include the same signed and certified statement as above and retain it with your records pursuant to Part 6.5.
- Inactive and unstaffed facilities covered under Sectors G (Metal Mining), H (Coal Mines and Coal Mining-Related Facilities), and J (Non-Metallic Mineral Mining and Dressing) are not required to meet the “no industrial materials or activities exposed to stormwater” standard to be eligible for this exception from routine inspections, per Parts 8.G.8.4, 8.H.9.1, and 8.J.9.1.
- 3.1.6** **Routine Facility Inspection Documentation.** You must document the findings of your facility inspections and maintain this report with your SWPPP as required in Part 6.5. You must conduct any corrective action required as a result of a routine facility inspection consistent with Part 5. If you conducted a discharge visual assessment required in Part 3.2 during your facility inspection, you may include the results of the assessment with the report required in this Part, as long as you include all components of both types of inspections in the report.
- Do not submit your routine facility inspection report to EPA, unless specifically requested to do so. However, you must summarize your findings in the Annual Report per Part 7.4. Document all findings, including but not limited to, the following information.

- 3.1.6.1 The inspection date and time;
- 3.1.6.2 The name(s) and signature(s) of the inspector(s);
- 3.1.6.3 Weather information;
- 3.1.6.4 All observations relating to the implementation of stormwater control measures at the facility, including:
 - a. A description of any stormwater discharges occurring at the time of the inspection;
 - b. Any previously unidentified stormwater discharges from and/or pollutants at the facility;
 - c. Any evidence of, or the potential for, pollutants entering the stormwater drainage system;
 - d. Observations regarding the physical condition of and around all stormwater discharge points, including any flow dissipation devices, and evidence of pollutants in discharges and/or the receiving water;
 - e. Any stormwater control measures needing maintenance, repairs, or replacement;
- 3.1.6.5 Any additional stormwater control measures needed to comply with the permit requirements;
- 3.1.6.6 Any incidents of noncompliance; and
- 3.1.6.7 A statement, signed and certified in accordance with Appendix B, Subsection 11.

3.2 **Quarterly Visual Assessment of Stormwater Discharges**

- 3.2.1 **Visual Assessment Frequency.** Once each quarter for your entire permit coverage, you must collect a stormwater sample from each discharge point (except as noted in Part 3.2.4) and conduct a visual assessment of each of these samples. These samples are not required to be collected consistent with 40 CFR Part 136 procedures but must be collected in such a manner that the samples are representative of the stormwater discharge. Guidance on monitoring is available at https://www.epa.gov/sites/production/files/2015-11/documents/msgp_monitoring_guide.pdf.
- 3.2.2 **Visual Assessment Procedures.** You must do the following for the quarterly visual assessment:
 - 3.2.2.1 Make the assessment of a stormwater discharge sample in a clean, colorless glass or plastic container, and examined in a well-lit area;
 - 3.2.2.2 Make the assessment of the sample you collected within the first 30 minutes of an actual discharge from a storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and you must document why it was not possible to take the sample within the first 30 minutes. In the case of snowmelt, samples must be taken during a period with a measurable discharge; and

- 3.2.2.3** For storm events, make the assessment on discharges that occur at least 72 hours (three days) from the previous discharge. The 72-hour (three-day) storm interval does not apply if you document that less than a 72-hour (three-day) interval is representative for local storm events during the sampling period.
- 3.2.2.4** Visually inspect or observe for the following water quality characteristics, which may be evidence of stormwater pollution:
- a. Color;
 - b. Odor;
 - c. Clarity (diminished);
 - d. Floating solids;
 - e. Settled solids;
 - f. Suspended solids;
 - g. Foam;
 - h. Oil sheen; and
 - i. Other obvious indicators of stormwater pollution.
- 3.2.2.5** Whenever the visual assessment shows evidence of stormwater pollution in the discharge, you must initiate the corrective action procedures in Part 5.1.1.
- 3.2.3** **Visual Assessment Documentation.** You must document the results of your visual assessments and maintain this documentation onsite with your SWPPP as required in Part 6.5. Any corrective action required as a result of a quarterly visual assessment must be conducted consistent with Part 5 of this permit. You are not required to submit your visual assessment findings to EPA, unless specifically requested to do so. However, you must summarize your findings in the annual report per Part 7.4. Your documentation of the visual assessment must include, but not be limited to:
- 3.2.3.1** Sample location(s);
 - 3.2.3.2** Sample collection date and time, and visual assessment date and time for each sample;
 - 3.2.3.3** Personnel collecting the sample and conducting visual assessment, and their signatures;
 - 3.2.3.4** Nature of the discharge (i.e., stormwater from rain or snow);
 - 3.2.3.5** Results of observations of the stormwater discharge;
 - 3.2.3.6** Probable sources of any observed stormwater contamination;
 - 3.2.3.7** If applicable, why it was not possible to take samples within the first 30 minutes; and
 - 3.2.3.8** A statement, signed and certified in accordance with Appendix B, Subsection 11.
- 3.2.4** **Exceptions to Quarterly Visual Assessments**
- 3.2.4.1** **Adverse Weather Conditions.** When adverse weather conditions prevent the collection of stormwater discharge sample(s) during the quarter, you must take a substitute

sample during the next qualifying storm event. Documentation of the rationale for no visual assessment for the quarter must be included with your SWPPP records as described in Part 6.5. Adverse conditions are those that are dangerous or create inaccessibility for personnel, such as local flooding, high winds, electrical storms, or situations that otherwise make sampling impractical, such as extended frozen conditions.

- 3.2.4.2 Climates with Irregular Stormwater Discharges.** If your facility is located in an area where limited rainfall occurs during many parts of the year (e.g., arid or semi-arid climate) or in an area where freezing conditions exist that prevent discharges from occurring for extended periods, then your samples for the quarterly visual assessments may be distributed during seasons when precipitation more regularly occurs.
- 3.2.4.3 Areas that Receive Snow.** If the facility is in an area that typically receives snow and the facility receives snow at least once over a period of four quarters, at least one quarterly visual assessment must capture snowmelt discharge, as described in Part 4.1.3, taking into account the exception described above for climates with irregular stormwater discharges.
- 3.2.4.4 Inactive and Unstaffed Facilities.** The requirement for a quarterly visual assessment does not apply at a facility that is inactive and unstaffed, as long as there are no industrial materials or activities exposed to stormwater. To invoke this exception, you must maintain a statement in your SWPPP per Part 6.2.5.2 indicating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to precipitation, in accordance with the substantive requirements in 40 CFR 122.26(g)(4)(iii). The statement must be signed and certified in accordance with Appendix B, Subsection 11. If circumstances change and industrial materials or activities become exposed to stormwater or your facility becomes active and/or staffed, this exception no longer applies, and you must immediately resume quarterly visual assessments. If you are not qualified for this exception at the time you are authorized under this permit, but during the permit term you become qualified because your facility becomes inactive and unstaffed, and there are no industrial materials or activities that are exposed to stormwater, then you must include the same signed and certified statement as above and retain it with your records pursuant to Part 6.5. Inactive and unstaffed facilities covered under Sectors G (Metal Mining), H (Coal Mines and Coal Mining-Related Facilities), and J (Non-Metallic Mineral Mining and Dressing), are not required to meet the “no industrial materials or activities exposed to stormwater” standard to be eligible for this exception from quarterly visual assessments, consistent with the requirements established in Parts 8.G.8.4, 8.H.9.1, and 8.J.9.1.
- 3.2.4.5 Substantially Identical Discharge Points (SIDP).** If your facility has two or more discharge points that discharge substantially identical stormwater effluents, as documented in Part 6.2.5.3, you may conduct quarterly visual assessments of the discharge at just one of the discharge points and report that the results also apply to the SIDPs provided that you conduct visual assessments on a rotating basis of each SIDP throughout the period of your coverage under this permit. If stormwater contamination is identified through visual assessment conducted at a SIDP, you must assess and modify your stormwater control measures as appropriate for each discharge point represented by the monitored discharge point.

4. **Monitoring**

You must collect and analyze stormwater samples and document monitoring activities consistent with the procedures described in Part 4 and Appendix B, Subsections B.10 – 12, and any additional sector-specific or state/tribal-specific requirements in Parts 8 and 9, respectively. Refer to Part 7 for reporting and recordkeeping requirements.

4.1 **Monitoring Procedures**

4.1.1 Monitored Stormwater Discharge Points. Applicable monitoring requirements apply to each discharge point authorized by this permit, except as otherwise exempt from monitoring as a “substantially identical discharge point” (SIDP). If your facility has two or more discharge points that you believe discharge substantially identical stormwater effluents, based on the similarities of the general industrial activities and control measures, exposed materials that may significantly contribute pollutants to stormwater, and runoff coefficients of their drainage areas, you may monitor the effluent of just one of the discharge points and report that the results also apply to the SIDP(s). As required in Part 6.2.5.3, your SWPPP must identify each discharge point authorized by this permit and describe the rationale for any SIDP determinations. The allowance for monitoring only one of the SIDP is not applicable to any discharge points with numeric effluent limitations. You are required to monitor each discharge point covered by a numeric effluent limit as identified in Part 4.2.2.

4.1.2 Commingled Discharges. If any authorized stormwater discharges commingle with discharges not authorized under this permit, you must conduct any required sampling of the authorized discharges at a point before they mix with other waste streams, to the extent practicable.

4.1.3 Measurable Storm Events. You must conduct all required monitoring on a storm event that results in an actual discharge (“measurable storm event”) that follows the preceding measurable storm event by at least 72 hours (three days). The 72-hour (3-day) storm interval does not apply if you are able to document that less than a 72-hour (3-day) interval is representative for local storm events during the sampling period. In the case of snowmelt, you must conduct monitoring at a time when a measurable discharge occurs.

For each monitoring event, except snowmelt monitoring, you must identify the date and duration (in hours) of the rainfall event, rainfall total (in inches) for that rainfall event, and time (in days) since the previous measurable storm event. For snowmelt monitoring, you must identify the date of the sampling event.

4.1.4 Sample Type. You must take a minimum of one grab sample from a discharge resulting from a measurable storm event as described in Part 4.1.3. You must collect samples within the first 30 minutes of a discharge associated with a measurable storm event. If it is not possible to collect the sample within the first 30 minutes of a measurable storm event, you must collect the sample as soon as possible after the first 30 minutes and keep documentation with the SWPPP explaining why it was not possible to take samples within the first 30 minutes. In the case of snowmelt, you must take samples during a period with a measurable discharge.

For indicator monitoring and benchmark monitoring, you may choose to use a composite sampling method instead of taking grab samples. This composite method may be either flow-weighted or time-weighted and performed manually or with the use of automated sampling equipment. For the purposes of this permit, a flow-

weighted composite sample means a composite sample consisting of a mixture of aliquots collected at a constant or variable time interval, where the volume of each aliquot included in the composite sample is proportional to the estimated or measured incremental discharge volume at the time of the aliquot collection compared to the total discharge volume estimated or measured over the monitoring event. For the purposes of this permit, a time-weighted composite sample means a composite sample consisting of a mixture of equal volume aliquots collected at a regular defined time interval over a specific period of time. Composite sampling must be initiated during the first 30 minutes of the same storm event. If it is not possible to initiate composite sampling within the first 30 minutes of a measurable storm event, you must initiate composite sampling as soon as possible after the first 30 minutes and keep documentation with the SWPPP explaining why it was not possible to initiate composite sampling within the first 30 minutes. You must submit all monitoring results to EPA per Part 4.1.9. Composite sampling may not be used in situations where hold times for processing or sample preservation requirements cannot be satisfied. For parameters measured in-situ with a probe or meter such as dissolved oxygen, conductivity, pH, or temperature, the composite sampling method shall be modified by calculating an average all individual measurements, weighted by flow volume if applicable.

- 4.1.5 **Adverse Weather Conditions.** When adverse weather conditions as described in Part 3.2.4.1 prevent the collection of stormwater discharge samples according to the relevant monitoring schedule, you must take a substitute sample during the next qualifying storm event. Adverse weather does not exempt you from having to file a benchmark monitoring report in accordance with your sampling schedule. As specified in Part 7.4, you must indicate in Net-DMR any failure to monitor during the regular reporting period.
- 4.1.6 **Facilities in Climates with Irregular Stormwater Discharges.** If your facility is located in areas where limited rainfall occurs during parts of the year (e.g., arid or semi-arid climates) or in areas where freezing conditions exist that prevent discharges from occurring for extended periods, you may distribute your required monitoring events during seasons when precipitation occurs, or when snowmelt results in a measurable discharge from your facility. You must still collect the required number of samples. As specified in Part 7.4, you must also indicate in Net-DMR that there was no monitoring for the respective monitoring period.
- 4.1.7 **Monitoring Periods.** Your monitoring requirements in this permit begin in the first full quarter following either May 30, 2021 or your date of discharge authorization, whichever date comes later.

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

For example, if you obtain permit coverage on April 10, 2021, then your first monitoring quarter for benchmark monitoring is– July 1, 2021 – September 30, 2021 and your first monitoring year for discharges to impaired waters or discharges subject to an effluent limitation guideline is July 1, 2021 – June 30, 2022. This monitoring schedule may be modified in accordance with Part 4.1.6 if you document the revised schedule in your SWPPP. However, you must indicate in Net-DMR any 3-month interval that you did not take a sample.

4.1.8 Monitoring for Authorized Non-Stormwater Discharges. You are only required to monitor authorized non-stormwater discharges (as delineated in Part 1.2.2) when they are commingled with stormwater discharges associated with industrial activity.

4.1.9 Monitoring Reports. You must report monitoring data using Net-DMR, EPA's electronic DMR tool, as described in Part 7.3 (unless the applicable EPA Regional Office grants you a waiver from electronic reporting, in which case you may submit a paper DMR form).

4.2 Required Monitoring

This permit includes six types of required analytical monitoring, one or more of which may apply to your stormwater discharge:

- Indicator monitoring (Part 4.2.1);
- Benchmark monitoring (Part 4.2.2);
- Annual effluent limitations guidelines monitoring (Part 4.2.3);
- State- or tribal-specific monitoring (Part 4.2.4);
- Impaired waters monitoring (Part 4.2.5); and
- Other monitoring as required by EPA (Part 4.2.6).

Unless otherwise specified, samples must be analyzed consistent with 40 CFR Part 136 analytical methods that are sufficiently sensitive for the monitored parameter. When more than one type of monitoring for the same pollutant at the same discharge point applies (e.g., total suspended solids once per year for an effluent limitation and once per quarter for benchmark monitoring at a given discharge point), you may use a single sample to satisfy both monitoring requirements (i.e., one sample satisfying both the annual effluent limitation sample and one of the four quarterly benchmark monitoring samples). Similarly, when the same type of monitoring is required for the same pollutant but for different activities, you may use a single sample to satisfy both monitoring requirements (i.e., when you are required to monitor for PAHs in stormwater discharges from paved surfaces that will be sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit and you are also required to monitor for PAHs in stormwater discharges since you manufacture, use, or store creosote or creosote-treated wood in areas that are exposed to precipitation).

When the effluent limitation is lower than the benchmark threshold for the same pollutant, your Additional Implementation Measure (AIM) trigger is based on an exceedance of the effluent limitation threshold, which would subject you to the AIM requirements of Part 5.2. Exceedance of an effluent limitation associated with the results of any analytical monitoring type required by this Part subjects you to the corrective action requirements of Part 5.1. You must conduct all required monitoring in accordance with the procedures described in Appendix B, Subsection B.10.

Per Part 1.3.7, in the event that the permit is administratively continued, monitoring requirements remain in force and effect at their original frequency during any continuance for operators that were covered prior to permit expiration. In the event that monitoring results are unable to be electronically reported in Net-DMR, operators must maintain monitoring results and records within their SWPPP.

Table 4-1. Summary of Each Type of Monitoring

Monitoring Type	Monitoring Type Applies To	Frequency	Duration	Follow-up Action	Permit Part Reference
Indicator – pH, TSS, COD	Subsectors 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	Part 4.2.1.1.a
Indicator – PAHs*	Operators with stormwater discharges from paved surfaces that will be sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit; sectors; Sector A facilities that manufacture, use, or store creosote or creosote-treated wood in areas that are exposed to precipitation; and Sectors C (SIC 2911), D, F, H, I, M, O, P (SIC 4011, 4013, and 5171), Q (SIC 4491), R, and S	Bi-annually (2 times per year)	First year and fourth year	None	Part 4.2.1.1.b
Benchmark	Subsectors 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	First year and fourth year	AIM. See Part 5.2.	Part 4.2.2
Effluent limitation guidelines (ELG)	See Part 4.2.3	Annually	Entirety of permit coverage	See Part 5.1	Part 4.2.3
State- or tribal-specific	Depends on the discharge location of your facility. See Part 9				
Impaired Waters	Depends on the receiving waterbody. See Part 4.2.5				
Other as required by EPA	See Part 4.2.6				

* Monitoring is required for the 16 individual PAHs identified at Appendix A to 40 CFR Part 423: naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, benzo[g,h,i]perylene, indeno[1,2,3-c,d]pyrene, and dibenz[a,h]anthracene.

4.2.1 Indicator Monitoring. This permit requires indicator monitoring of stormwater discharges for three parameters – pH, Total Suspended Solids (TSS), and Chemical Oxygen Demand (COD) – for certain sectors/subsectors (see Part 4.2.1.1.a below) and for polycyclic aromatic hydrocarbons (PAHs) for certain sectors/activities, with additional limitations (see Part 4.2.1.1.b below). Indicator monitoring data will provide you and EPA 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 2.2.1

that your stormwater discharge be controlled as necessary such that the receiving water of the United States will meet applicable water quality standards still applies. You may find it useful to evaluate and compare your indicator monitoring data over time to identify any fluctuating values and why they may be occurring, and to further inform any revisions to your SWPPP/SCMs if necessary.¹¹ 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.

4.2.1.1 **Applicability and Schedule of Indicator Monitoring**

a. **pH, Total Suspended Solids (TSS), and Chemical Oxygen Demand (COD).**

- i. **Applicability.** Operators in the following subsectors must monitor stormwater discharges for pH, TSS, and COD (also specified in the sector-specific requirements in Part 8): 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.
- ii. **Schedule.** You must conduct indicator monitoring of stormwater discharges for pH, TSS, and COD each quarter, beginning in your first full quarter of permit coverage as identified in Part 4.1.7.

b. **Polycyclic Aromatic Hydrocarbons (PAH).**

- i. **Applicability.** The following operators must monitor stormwater discharges for the 16 individual priority pollutant PAHs (also specified in the sector-specific requirements in Part 8): operators in all sectors with stormwater discharges from paved surfaces that will be sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit; operators in sectors A (facilities that manufacture, use, or store creosote or creosote-treated wood in areas that are exposed to precipitation), C (SIC Code 2911), D, F, H, I, M, O, P (SIC Codes 4011, 4013, and 5171), Q (SIC Code 4491), R, and S. Monitoring is required for the 16 individual PAHs identified at Appendix A to 40 CFR Part 423: naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, benzo[g,h,i]perylene, indeno[1,2,3-c,d]pyrene, and dibenz[a,h]anthracene. Samples must be analyzed using EPA Method 625.1, or EPA Method 610/Standard Method 6440B if preferred by the operator, consistent with 40 CFR Part 136 analytical methods.
- ii. **Schedule.** You must conduct indicator monitoring of stormwater discharges for PAHs bi-annually (i.e., sample twice per year) in the first and fourth years of permit coverage. Your first year of permit coverage begins in your first full quarter of permit coverage, identified in Part 4.1.7, commencing no earlier than May 30, 2021, followed by two years of no monitoring. Bi-annual monitoring resumes in your fourth year of permit coverage for another year,

¹¹ Examples of possible reviews and revisions to the SWPPP/SCMs that could be informed by indicator monitoring values include: reviewing sources of pollution or any changes to performed industrial activities and processes; reviewing spill and leak procedures, and/or non-stormwater discharges; conducting a single comprehensive clean-up, implementing a new control measure, and/or increasing inspections. EPA notes, however, that these actions are not required under the 2021 MSGP in response to indicator monitoring.

after which you may discontinue bi-annual PAH monitoring for the remainder of your permit coverage.

4.2.1.2 Exception for Facilities in Climates with Irregular Stormwater Discharges. As described in Part 4.1.6, facilities in climates with irregular stormwater discharges may modify this schedule provided you report this revised schedule directly to EPA by the due date of the first indicator monitoring sample (see EPA Regional contacts in Part 7.8), and you keep this revised schedule with the facility's SWPPP as specified in Part 6.5. As noted in Part 4.1.7, you must indicate in Net-DMR any 3-month interval that you did not take a sample.

4.2.1.3 Exception for Inactive and Unstaffed Facilities. The requirement for indicator monitoring does not apply at a facility that is inactive and unstaffed, provided that there are no industrial materials or activities exposed to stormwater. To invoke this exception, you must do the following:

- a. Maintain a statement with your SWPPP stating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to stormwater in accordance with the substantive requirements in 40 CFR 122.26(g) and sign and certify the statement in accordance with Appendix B, Subsection 11.
- b. If circumstances change and industrial materials or activities become exposed to stormwater or your facility becomes active and/or staffed, this exception no longer applies and you must immediately begin complying with the applicable indicator monitoring requirements under Part 4.2.1 as if you were in your first year of permit coverage. You must indicate in your NOI that your facility has materials or activities exposed to stormwater or has become active and/or staffed.
- c. If you are not qualified for this exception at the time you are authorized under this permit, but during the permit term you become qualified because your facility is inactive and unstaffed, and there are no industrial materials or activities that are exposed to stormwater, then you must notify EPA of this change on your NOI form. You may discontinue indicator monitoring once you have notified EPA, and prepared and signed the certification statement described above concerning your facility's qualification for this special exception.

Note: This exception has different requirements for Sectors G, H, and J (see Part 8).

4.2.2 Benchmark Monitoring. This permit requires benchmark monitoring parameters of stormwater discharges for certain sectors/subsectors. Benchmark monitoring data are primarily for your use to determine the overall effectiveness of your stormwater control measures and to assist you in determining when additional action(s) may be necessary to comply with the effluent limitations in Part 2.

The benchmark thresholds are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. However, if a benchmark exceedance triggers Additional Implementation Measures (AIM) in Part 5.2, failure to conduct any required measures is a permit violation. At your discretion, you may take more than four samples during separate stormwater discharge events to determine the average benchmark parameter value for facility discharges.

4.2.2.1 Applicability of Benchmark Monitoring.

You 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 listed in Part 8. If your facility is in one of the industrial sectors subject to benchmark thresholds that are hardness-dependent, you must include in your NOI a hardness value, established consistent with the procedures in Appendix J, that is representative of your receiving water. Hardness is not a specific benchmark and therefore the permit does not include a benchmark threshold with which to compare.

Samples must be analyzed consistent with 40 CFR Part 136 analytical methods and using test procedures with quantitation limits at or below benchmark thresholds for all benchmark parameters for which you are required to sample, i.e. sufficiently sensitive methods. For averaging purposes, you may use a value of zero for any individual sample parameter which is determined to be less than the method detection limit. For sample values that fall between the method detection limit and the quantitation limit (i.e., a confirmed detection but below the level that can be reliably quantified), use a value halfway between zero and the quantitation limit.

4.2.2.2 Summary of the 2021 MSGP Benchmark Thresholds

The Table 4-2 presents the 2021 MSGP's freshwater and saltwater benchmark thresholds. Sector-specific benchmark requirements are detailed in [Part 8](#). Values match the original units found in the source documents, detailed in the corresponding section of the fact sheet.

Table 4-2 2021 MSGP Benchmark Thresholds

Pollutant		2021 MSGP Benchmark Threshold
Total Recoverable Aluminum (T)		1,100 µg/L
Total Recoverable Beryllium		130 µg/L
Biochemical Oxygen Demand (5-day)		30 mg/L
pH		6.0 – 9.0 s.u.
Chemical Oxygen Demand		120 mg/L
Total Phosphorus		2.0 mg/L
Total Suspended Solids (TSS)		100 mg/L
Nitrate and Nitrite Nitrogen		0.68 mg/L
Turbidity		50 NTU
Total Recoverable Antimony		640 µg/L
Ammonia		2.14 mg/L
Total Recoverable Cadmium	Freshwater ^a	1.8 µg/L
	Saltwater	33 µg/L
Total Recoverable Copper	Freshwater	5.19 µg/L
	Saltwater	4.8 µg/L

Pollutant		2021 MSGP Benchmark Threshold
Total Recoverable Cyanide	Freshwater	22 µg/L
	Saltwater	1 µg/L
Total Recoverable Mercury	Freshwater	1.4 µg/L
	Saltwater	1.8 µg/L
Total Recoverable Nickel	Freshwater ^a	470 µg/L
	Saltwater	74 µg/L
Total Recoverable Selenium	Freshwater	1.5 µg/L for still/standing (lentic) waters 3.1 µg/L for flowing (lotic) waters
	Saltwater	290 µg/L
Total Recoverable Silver	Freshwater ^a	3.2 µg/L
	Saltwater	1.9 µg/L
Total Recoverable Zinc	Freshwater ^a	120 µg/L
	Saltwater	90 µg/L
Total Recoverable Arsenic	Freshwater ^a	150 µg/L
	Saltwater	69 µg/L
Total Recoverable Lead	Freshwater ^a	82 µg/L
	Saltwater	210 µg/L

^a These pollutants are dependent on water hardness where discharged into freshwaters. The freshwater benchmark value listed is based on a hardness of 100 mg/L. When a facility analyzes receiving water samples for hardness, the operator must use the hardness ranges provided in Table 1 in Appendix J of the 2021 MSGP and in the appropriate tables in Part 8 of the 2021 MSGP to determine applicable benchmark values for that facility. Benchmark thresholds for discharges of these pollutants into saline waters are not dependent on receiving water hardness and do not need to be adjusted.

4.2.2.3 Benchmark Monitoring Schedule. Benchmark monitoring of stormwater discharges is required quarterly, as identified in Part 4.1.7, in the first and fourth year of permit coverage, as follows:

- a. **Year one of permit coverage:** You must conduct benchmark monitoring for all parameters applicable to your subsector(s) for four quarters in your first year of permit coverage, beginning in your first *full* quarter of permit coverage, no earlier than May 30, 2021.
 - i. If the annual average¹² for a parameter does not exceed the benchmark threshold, you can discontinue benchmark monitoring for that parameter for the next two years (i.e., eight quarters).

¹² For this permit, an annual average exceedance for a parameter can occur if: (a) The four-quarter annual average for a parameter exceeds the benchmark threshold; or (b) Fewer than four quarterly samples are collected, but a single sample or the sum of any sample results within the sampling year exceeds the benchmark threshold by more than four times for a parameter. The result in (b) indicates an exceedance is mathematically certain (i.e., the sum of quarterly sample results to date is already more than four times the benchmark threshold). For pH, an annual average exceedance can only occur if the four-quarter annual average exceeds the benchmark threshold.

- ii. If the annual average for a parameter exceeds the benchmark threshold, you must comply with Part 5.2 (Additional Implementation Measures responses and deadlines) and continue quarterly benchmark monitoring for that parameter until results indicate that the annual average is no longer exceeded, after which you can discontinue benchmark monitoring for that parameter until monitoring resumes in year four of permit coverage, per Part 4.2.2.3.b below.
 - b. **Year four of permit coverage:** You must conduct benchmark monitoring for all parameters applicable to your subsector(s) for four quarters in your fourth year of permit coverage (i.e., your thirteenth through sixteenth quarters), unless the first quarter of your fourth year of permit coverage occurs on or after the date this permit expires.
 - i. If the annual average¹³ for a parameter does not exceed the benchmark threshold, you can discontinue benchmark monitoring for that parameter for the remainder of your permit coverage.
 - ii. If the annual average for a parameter exceeds the benchmark threshold, you must comply with Part 5.2 (Additional Implementation Measures responses and deadlines) and continue quarterly benchmark monitoring for that parameter until results indicate that the annual average is no longer exceeded, after which you can discontinue benchmark monitoring for that parameter for the remainder of permit coverage.
- 4.2.2.4 **Exception for Facilities in Climates with Irregular Stormwater Discharges.** As described in Part 4.1.6, facilities in climates with irregular stormwater discharges may modify this quarterly schedule provided you report this revised schedule directly to EPA by the due date of the first benchmark sample (see EPA Regional contacts in Part 7.8), and you keep this revised schedule with the facility's SWPPP as specified in Part 6.5. When conditions prevent you from obtaining four samples in four consecutive quarters, you must continue monitoring until you have the four samples required for calculating your benchmark monitoring average. As noted in Part 4.1.7, you must indicate in Net-DMR any 3-month interval that you did not take a sample.
- 4.2.2.5 **Exception for Inactive and Unstaffed Facilities.** The requirement for benchmark monitoring does not apply at a facility that is inactive and unstaffed, provided that there are no industrial materials or activities exposed to stormwater. To invoke this exception, you must do the following:
- a. Maintain a statement with your SWPPP stating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to stormwater in accordance with the substantive requirements in 40 CFR 122.26(g) and sign and certify the statement in accordance with Appendix B, Subsection 11.
 - b. If circumstances change and industrial materials or activities become exposed to stormwater or your facility becomes active and/or staffed, this exception no longer applies and you must immediately begin complying with the applicable benchmark monitoring requirements under Part 4.2.2 as if you were in your first year of permit coverage. You must indicate in your NOI that your facility has

¹³ *Ibid.*

materials or activities exposed to stormwater or has become active and/or staffed.

- c. If you are not qualified for this exception at the time you are authorized under this permit, but during the permit term you become qualified because your facility is inactive and unstaffed, and there are no industrial materials or activities that are exposed to stormwater, then you must notify EPA of this change on your NOI form. You may discontinue benchmark monitoring once you have notified EPA, and prepared and signed the certification statement described above concerning your facility's qualification for this special exception.

Note: This exception has different requirements for Sectors G, H, and J (see Part 8).

4.2.3 **Effluent Limitations Monitoring**

- 4.2.3.1 **Monitoring Based on Effluent Limitations Guidelines.** Table 4-3 identifies the stormwater discharges subject to effluent limitation guidelines that are authorized for coverage under this permit. An exceedance of the effluent limitation is a permit violation. Beginning in the first full quarter following May 30, 2021 or your date of discharge authorization, whichever date comes later, you must monitor once per year at each stormwater discharge point containing the discharges identified in Table 4-3 for the parameters specified in the sector-specific section of Part 8.

Table 4-3. Required Monitoring for Effluent Limits Based on Effluent Limitations Guidelines

Regulated Activity	Effluent Limit	Monitoring Frequency	Sample Type
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	See Part 8.A.8	1/year	Grab
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	See Part 8.C.5	1/year	Grab
Runoff from asphalt emulsion facilities	See Part 8.D.5	1/year	Grab
Runoff from material storage piles at cement manufacturing facilities	See Part 8.E.6	1/year	Grab
Mine dewatering discharges at crushed stone, construction sand and gravel, or industrial sand mining facilities	See Part 8.J.10	1/year	Grab
Runoff from hazardous waste landfills	See Part 8.K.7	1/year	Grab
Runoff from non-hazardous waste landfills	See Part 8.L.11	1/year	Grab
Runoff from coal storage piles at steam electric generating facilities	See Part 8.O.8	1/year	Grab
Runoff containing urea from airfield pavement deicing at existing and new primary airports with 1,000 or more annual non- propeller aircraft departures.	See Part 8.S.9	1/year	Grab

- 4.2.3.2 **Substantially Identical Discharge Points Not Applicable.** You must monitor each discharge point discharging stormwater from any regulated activity identified in Table

4-3. The substantially identical discharge points (SIDP) monitoring provisions are not available for numeric effluent limit monitoring.

4.2.3.3 Follow-up Actions if Discharge Exceeds Numeric Effluent Limitation. If any monitoring value exceeds a numeric effluent limitation contained in this permit, you must indicate the exceedance on a "Change NOI" form in the NPDES eReporting Tool (NeT), and you must conduct follow-up monitoring within 30 calendar days (or during the next measurable storm event, should none occur within 30 days) of implementing corrective action(s) taken per Part 5.1. If your follow-up monitoring exceeds the applicable effluent limitation, you must:

- a. **Submit an Exceedance Report:** You must submit an Exceedance Report no later than 30 days after you have received your laboratory result consistent with Part 7.5; and
- b. **Continue to Monitor:** You must monitor, at least quarterly, until your stormwater discharge is in compliance with the effluent limit or until EPA waives the requirement for additional monitoring. Once your discharge is back in compliance with the effluent limitation you must indicate this on a "Change NOI" form per Part 7.3.

4.2.4 State or Tribal Required Monitoring

4.2.4.1 Sectors Required to Conduct State or Tribal Monitoring. You must comply with any state or tribal monitoring requirements in Part 9 of the permit applicable to your facility's discharge location.

4.2.4.2 State or Tribal Monitoring Schedule. If a monitoring frequency is not specified for an applicable requirement in Part 9, you must monitor once per year for the duration of your permit coverage.

4.2.5 Impaired Waters Monitoring. For the purposes of this permit, your facility is considered to discharge to an impaired water if the first water of the United States to which you discharge is identified by a state, tribe, or EPA pursuant to section 303(d) of the CWA as not meeting an applicable water quality standard (i.e., without an EPA-approved or -established TMDL, see Part 4.2.5.1.a below), or has been removed from the 303(d) list either because the impairments are addressed by an EPA-approved or established TMDL or is covered by pollution control requirements that meet the requirements of 40 CFR 130.7(b)(1) (see Part 4.2.5.1.b below). For discharges that enter a separate storm sewer system¹⁴ prior to discharge, the first water of the United States to which you discharge is the waterbody that receives the stormwater discharge from the separate storm sewer system.

4.2.5.1 Facilities Required to Monitor Stormwater Discharges to Impaired Waters.

- a. **Discharges to impaired waters without an EPA-approved or established TMDL:**

Monitoring is required annually in the first year of permit coverage and again in the fourth year of permit coverage as follows, unless you detect a pollutant causing an impairment, in which case annual monitoring must continue.

¹⁴ Separate storm sewer systems do not include combined sewer systems or sanitary sewer systems. Separate storm sewer systems include both municipal storm sewer systems (MS4s) and non-municipal separate storm sewers.

- i. **Year one of permit coverage:** You must take your first annual sample in your first year of permit coverage, which begins in the first full quarter following May 30, 2021 or your date of discharge authorization, whichever date comes later. You must monitor for all pollutants causing impairments using a standard analytical method, provided one exists (see 40 CFR Part 136), once at each discharge point (except substantially identical discharge points) discharging stormwater to impaired waters without an EPA-approved or established TMDL. *Note:* Except where otherwise directed by EPA, if the pollutant of concern for the impaired waterbody is suspended solids, turbidity, or sediment/sedimentation, you must monitor for Total Suspended Solids (TSS). If a pollutant of concern is expressed in the form of an indicator or surrogate pollutant, you must monitor for that indicator or surrogate pollutant. No monitoring is required when a waterbody's biological communities are impaired but no pollutant, including indicator or surrogate pollutants, is specified as causing the impairment, or when a waterbody's impairment is related to hydrologic modifications, impaired hydrology, or other non-pollutant. Operators must consult the applicable EPA Regional Office for any available guidance regarding required monitoring parameters under this part.
- 1) If monitoring results indicate the monitored pollutant is not detected in your discharge, or is within the acceptable range for a given parameter for the waterbody to meet its designated use (e.g., pH or temperature),¹⁵ you may discontinue monitoring for that pollutant for the next two years. You must resume monitoring for that pollutant in year four of permit coverage, if applicable, per Part 4.2.5.1.a.ii.
 - 2) If monitoring results indicate that the monitored pollutant is detected in your stormwater discharge, or is outside the acceptable range for a given parameter (e.g., pH or temperature) for the waterbody to meet its designated use,¹⁶ you must continue to monitor for the pollutant(s) annually until no longer detected, after which you may discontinue monitoring for that pollutant until monitoring resumes in year four of permit coverage, if applicable, per Part 4.2.5.1.a.ii.
- ii. **Year four of permit coverage.** Annual monitoring resumes in your fourth year of permit coverage for another year for a sub-set of parameters monitored for in the first monitoring year. In the fourth year of permit coverage, you must monitor for all pollutants causing impairment(s) that are associated with your industrial activity and/or are listed as a benchmark parameter for your subsector(s) (regardless of whether you have satisfied benchmark monitoring for the parameter per Part 4.2.2). To determine these pollutants, start with the list of pollutants for which the receiving waterbody is impaired and for which a standard analytical method exists (see 40 CFR Part 136), then compare that list to the industrial pollutants you identified in Part 6.2.3.2 and any sector-specific benchmark monitoring pollutants in Part 8 and, if applicable, Part 9. You must monitor for pollutants that appear on both the impairments list and either your industrial pollutants and/or your benchmark parameter list, including "indicator" or "surrogate" pollutants (as described in the "note" in 1 above). You must monitor once at each discharge point (except

¹⁵ Refer to your state's Water Quality Standards or contact the EPA Regional Office for assistance.

¹⁶ *Ibid.*

substantially identical discharge points (SIDPs)) for these pollutants. Consistent with Part 4.2, annual samples may be used to also satisfy any single remaining quarterly benchmark monitoring requirement applicable to your discharge.

- 1) If monitoring results indicate the monitored pollutant is not detected in your discharge, or is within the acceptable range for a given parameter for the waterbody to meet its designated use (e.g., pH or temperature),¹⁷ you may discontinue monitoring for that pollutant for the remainder of your permit coverage.
- 2) If the monitoring results indicate that the monitored pollutant is detected in your discharge, or is outside the acceptable range for a given parameter (e.g., pH or temperature) for the waterbody to meet its designated use, you must continue to monitor for the pollutant(s) annually until no longer detected, after which you may discontinue monitoring for that pollutant for the remainder of your permit coverage.

- iii. **Exception:** If sampling results in either Part 4.2.5.1.a.i or Part 4.2.5.1.a.ii above indicate the monitored pollutant is detected in your discharge, but you have determined that its presence is caused solely by natural background sources, you may discontinue monitoring for that pollutant for the duration of your permit coverage.

To support a determination that the pollutant's presence is caused solely by natural background sources, you must document and maintain with your SWPPP, as required by Part 6.5:

- 1) An explanation of why you believe that the presence of the pollutant of concern in your discharge is not related to the activities or materials at your facility; and
- 2) Data and/or studies that tie the presence of the pollutant of concern in your discharge to natural background sources in the watershed.

Natural background pollutants include those that occur naturally as a result of native soils, and vegetation, wildlife, or ground water. Natural background pollutants do not include legacy pollutants from earlier activity on your site, or pollutants in run-on from neighboring sources that are not naturally occurring. However, you may be eligible to discontinue annual monitoring for pollutants that occur solely from these sources and should consult the applicable EPA Regional Office for related guidance.

- b. **Discharges to impaired waters with an EPA-approved or established TMDL:** For stormwater discharges to waters for which there is an EPA-approved or established TMDL, you are not required to monitor for the pollutant(s) for which the TMDL was written unless EPA informs you, upon examination of the applicable TMDL and its wasteload allocation, that you are subject to such a requirement consistent with the assumptions and findings of the applicable TMDL and its wasteload allocation. EPA's notice will include specifications on stormwater discharge monitoring parameters and frequency. If there are questions, you may consult the applicable EPA Regional Office for guidance regarding required monitoring under this Part.

¹⁷ *Ibid.*

- 4.2.5.2 Exception for Inactive and Unstaffed Facilities.** The requirement for impaired waters monitoring does not apply at a facility that is inactive and unstaffed, as long as there are no industrial materials or activities exposed to stormwater. To invoke this exception, you must do the following:
- a.** Maintain a statement with your SWPPP stating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to stormwater in accordance with the substantive requirements in 40 CFR 122.26(g) and sign and certify the statement in accordance with Appendix B, Subsection 11.
 - b.** If circumstances change and industrial materials or activities become exposed to stormwater or your facility becomes active and/or staffed, this exception no longer applies and you must immediately begin complying with the applicable impaired waters monitoring requirements under Part 4.2.5 as if you were in your first year of permit coverage. You must indicate in a "Change NOI" form per Part 7.2 that your facility has materials or activities exposed to stormwater or has become active and/or staffed.
 - c.** If you are not qualified for this exception at the time you are authorized under this permit, but during the permit term you become qualified because your facility is inactive and unstaffed, and there are no industrial materials or activities that are exposed to stormwater, then you must notify EPA of this change on your NOI form. You may discontinue impaired waters monitoring once you have notified EPA, and prepared and signed the certification statement described above concerning your facility's qualification for this special exception.

Note: This exception has different requirements for Sectors G, H, and J (see Part 8).

- 4.2.6 Additional Monitoring Required by EPA.** EPA may notify you of additional stormwater discharge monitoring requirements that EPA determines are necessary to meet the permit's effluent limitations. Any such notice will briefly state the reasons for the monitoring, locations, and parameters to be monitored, frequency and period of monitoring, sample types, and reporting requirements.

5. Corrective Actions and Additional Implementation Measures (AIM)

5.1 Corrective Action

- 5.1.1 Conditions Requiring SWPPP Review and Revision to Ensure Effluent Limits are Met.** When any of the following conditions occur or are detected during an inspection, monitoring or other means, or EPA or the operator of the MS4 through which you discharge informs you that any of the following conditions have occurred, you must review and revise, as appropriate, your SWPPP (e.g., sources of pollution; spill and leak procedures; non-stormwater discharges; the selection, design, installation and implementation of your stormwater control measures) so that this permit's effluent limits are met and pollutant discharges are minimized:
- 5.1.1.1** An unauthorized release or discharge (e.g., spill, leak, or discharge of non-stormwater not authorized by this or another NPDES permit to a water of the United States) occurs at your facility.
 - 5.1.1.2** A discharge violates a numeric effluent limit listed in Table 2-1 and/or in your Part 8 sector-specific requirements.

- 5.1.1.3 Your stormwater control measures are not stringent enough for your stormwater discharge to be controlled as necessary such that the receiving water of the United States will meet applicable water quality standards or to meet the non-numeric effluent limits in this permit.
- 5.1.1.4 A required control measure was never installed, was installed incorrectly, or not in accordance with Parts 2 and/or 8, or is not being properly operated or maintained.
- 5.1.1.5 Whenever a visual assessment shows evidence of stormwater pollution (e.g., color, odor, floating solids, settled solids, suspended solids, foam).
- 5.1.2 **Conditions Requiring SWPPP Review to Determine if Modifications Are Necessary.** If construction or a change in design, operation, or maintenance at your facility occurs that significantly changes the nature of pollutants discharged via stormwater from your facility, or significantly increases the quantity of pollutants discharged, you must review your SWPPP (e.g., sources of pollution, spill and leak procedures, non-stormwater discharges, selection, design, installation and implementation of your stormwater control measures) to determine if modifications are necessary to meet the effluent limits in this permit.
- 5.1.3 **Deadlines for Corrective Actions**
- 5.1.3.1 **Immediate Actions.** You must immediately take all reasonable steps to minimize or prevent the discharge of pollutants until you can implement a permanent solution, including cleaning up any contaminated surfaces so that the material will not discharge in subsequent storm events. In Part 5, the term “immediately” means that the day you find a condition requiring corrective action, you must take all reasonable steps to minimize or prevent the discharge of pollutants until you can implement a permanent solution. However, if you identify a problem too late in the work day to initiate corrective action, you must perform the corrective action the following work day morning. The term “all reasonable steps” means you must respond to the conditions triggering the corrective action, such as cleaning up any exposed materials that may be discharged in a storm event (e.g., through sweeping, vacuuming) or making arrangements (i.e., scheduling) for a new SCM to be installed.
- 5.1.3.2 **Subsequent Actions.** If additional actions are necessary beyond those implemented pursuant to Part 5.1.3.1, you must 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 that the condition in Part 5.1.1 is not met. If it is infeasible to complete the corrective action within 14 calendar days, you must document why it is infeasible to complete the corrective action within the 14-day timeframe. You must also identify your schedule for completing the work, which must be done as soon as practicable after the 14-day timeframe but no longer than 45 days after discovery. If the completion of corrective action will exceed the 45-day timeframe, you may take the minimum additional time necessary to complete the corrective action, provided that you notify the appropriate EPA Regional Office of your intention to exceed 45 days, your rationale for an extension, and a completion date, which you must also include in your corrective action documentation (see Part 5.3). Where your corrective actions result in changes to any of the controls or procedures documented in your SWPPP, you must modify your SWPPP accordingly within 14 calendar days of completing corrective action work.

These time intervals are not grace periods, but are schedules considered reasonable for documenting your findings and for making repairs and improvements. They are

included in this permit to ensure that the conditions prompting the need for these repairs and improvements do not persist indefinitely.

5.1.4 Effect of Corrective Action. If the event triggering the review is a permit violation (e.g., non-compliance with an effluent limit), correcting it does not remove the original violation. Additionally, failing to take corrective action in accordance with this section is an additional permit violation. EPA may consider the appropriateness and promptness of corrective action in determining enforcement responses to permit violations.

5.1.5 Substantially Identical Discharge Points. If the event triggering corrective action is associated with a discharge point that had been identified as a “substantially identical discharge point” (SIDP) (see Parts 3.2.4.5 and 4.1.1), your review must assess the need for corrective action for all related SIDPs. Any necessary changes to control measures that affect these other discharge points must also be made before the next storm event if possible, or as soon as practicable following that storm event. Any corrective actions must be conducted within the timeframes set forth in Part 5.1.3.

5.2 Additional Implementation Measures (AIM)

If any of the following AIM triggering events in Parts 5.2.3, 5.2.4, or 5.2.5 occur, you must follow the response procedures described in those parts, called “additional implementation measures” or “AIM.” There are three AIM levels: AIM Level 1, Level 2, and Level 3. You must respond as required to different AIM levels which prescribe sequential and increasingly robust responses when a benchmark exceedance occurs. You must follow the corresponding AIM level responses and deadlines described in Parts 5.2.1, 5.2.2, and 5.2.3 unless you qualify for an exception under Part 5.2.6.

5.2.1 Baseline Status

Once you receive discharge authorization under this permit per Part 1.3, you are in a baseline status for all applicable benchmark parameters. If an AIM triggering event occurs and you have proceeded sequentially to AIM Level 1, 2 or 3, you may return directly to baseline status once the corresponding AIM-level response and conditions are met.

5.2.2 AIM Triggering Events. If an annual average exceeds an applicable benchmark threshold based on the following events, the AIM requirements have been triggered for that benchmark parameter. You must follow the corresponding AIM-level responses and deadlines described in Parts 5.2.3, 5.2.4, and 5.2.5 unless you qualify for an exception under Part 5.2.6. An annual average exceedance for a parameter can occur if:

5.2.2.1 The four-quarterly annual average for a parameter exceeds the benchmark threshold, or

5.2.2.2 Fewer than four quarterly samples are collected, but a single sample or the sum of any sample results within the sampling year exceeds the benchmark threshold by more than four times for a parameter. This result indicates an exceedance is mathematically

certain (i.e., the sum of quarterly sample results to date is already more than four times the benchmark threshold).¹⁸

5.2.3 **AIM Level 1**

Your status changes from baseline to AIM Level 1 if quarterly benchmark monitoring results indicate that an AIM triggering event per Part 5.2.2 has occurred, unless you qualify for an exception under Part 5.2.6.

5.2.3.1 **AIM Level 1 Responses.** If any of the triggering events in Part 5.2.2 occur, you must:

- a. **Review SWPPP/Stormwater Control Measures.** Immediately review your SWPPP and the selection, design, installation, and implementation of your stormwater control measures to ensure the effectiveness of your existing measures and determine if modifications are necessary to meet the benchmark threshold for the applicable parameter,¹⁹ and
- b. **Implement Additional Measures.** After reviewing your SWPPP/stormwater control measures, you must implement additional measures, considering good engineering practices, that would reasonably be expected to bring your exceedances below the parameter's benchmark threshold; or if you determine nothing further needs to be done with your stormwater control measures, you must document per Part 5.3 and include in your annual report why you expect your existing control measures to bring your exceedances below the parameter's benchmark threshold for the next 12-month period.

5.2.3.2 **AIM Level 1 Deadlines.** If any modifications to or additional control measures are necessary in response to AIM Level 1, you must implement those modifications or control measures within 14 days of receipt of laboratory results, unless doing so within 14 days is infeasible. If doing so within 14 days is infeasible, you must document per Part 5.3 why it is infeasible and implement such modifications within 45 days.

5.2.3.3 **Continue Quarterly Benchmark Monitoring.** After compliance with AIM Level 1 responses and deadlines, you must continue quarterly benchmark monitoring for the next four quarters for the parameter(s) that caused the AIM triggering event at all affected stormwater discharge points, beginning no later than the next full quarter after compliance.

5.2.3.4 **AIM Level 1 Status Update.** While in AIM Level 1 status, you may either:

- a. **Return to Baseline Status.** Your AIM Level 1 status will return to baseline status if the AIM Level 1 responses have been met and continued quarterly benchmark monitoring results indicate that an AIM triggering event per Part 5.2.2 has not occurred after four quarters of monitoring (i.e., the benchmark threshold is no longer exceeded for the parameter(s)). You may discontinue benchmark monitoring for that parameter until monitoring resumes in year 4 of permit coverage per Part 4.2.2.3 or if you have fulfilled all benchmark monitoring

¹⁸ For pH, an annual average exceedance can only occur if the four-quarter annual average exceeds the benchmark threshold.

¹⁹ Examples may include: review sources of pollution, spill and leak procedures, and/or non-stormwater discharges; conducting a single comprehensive clean-up, making a change in subcontractor, implementing a new control measure, and/or increasing inspections.

requirements per Part 4.2.2.3, then you may discontinue monitoring for that parameter for the remainder of the permit.

- b. **Advance to AIM Level 2.** Your AIM Level 1 status advances to AIM Level 2 status if you have completed AIM Level 1 responses and the continued quarterly benchmark monitoring results indicate that an AIM triggering event per Part 5.2.2 has occurred (i.e., the benchmark threshold continues to be exceeded for the same parameter(s)).

5.2.4 **AIM Level 2**

Your status changes from AIM Level 1 to AIM Level 2 if your continued quarterly benchmark monitoring results indicate that an AIM triggering event per Part 5.2.2 has occurred (i.e., the benchmark threshold continues to be exceeded for the parameter(s)), unless you qualify for an exception under Part 5.2.6.

- 5.2.4.1 **AIM Level 2 Responses.** If any of the events in Part 5.2.2 occur, you must review your SWPPP and implement additional pollution prevention/good housekeeping SCMs, considering good engineering practices, beyond what you did in your AIM Level 1 responses that would reasonably be expected to bring your exceedances below the parameter's benchmark threshold. Refer to the MSGP sector-specific fact sheets for recommended controls found at [<https://www.epa.gov/npdes/stormwater-discharges-industrial-activities-fact-sheets-and-guidance>].

- 5.2.4.2 **AIM Level 2 Deadlines.** You must implement additional pollution prevention/good housekeeping SCMs within 14 days of receipt of laboratory results that indicate an AIM triggering event has occurred and document per Part 5.3 how the measures will achieve benchmark thresholds. If it is feasible for you to implement a measure, but not within 14 days, you may take up to 45 days to implement such measure. You must document per Part 5.3 why it was infeasible to implement such measure in 14 days. EPA may also grant you an extension beyond 45 days, based on an appropriate demonstration by you, the operator.

- 5.2.4.3 **Continue Quarterly Benchmark Monitoring.** After compliance with AIM Level 2 responses and deadlines, you must continue quarterly benchmark monitoring for the next four quarters for the parameter(s) that caused the AIM triggering event at all affected discharge points, beginning no later than the next full quarter after compliance.

- 5.2.4.4 **AIM Level 2 Status Update.** While in AIM Level 2 status, you may either:

- a. **Return to Baseline Status.** Your AIM Level 2 status will return to baseline status if the AIM Level 2 responses have been met and the continued quarterly benchmark monitoring results indicate that an AIM triggering event per Part 5.2.2 has not occurred after four quarters of monitoring (i.e., the benchmark threshold is no longer exceeded for the parameter(s)). You may discontinue benchmark monitoring for that parameter until monitoring resumes in year 4 of permit coverage per Part 4.2.2.3, or if you have fulfilled all benchmark monitoring requirements per Part 4.2.2.3, then you may discontinue monitoring for that parameter for the remainder of the permit.
- b. **Advance to AIM Level 3.** Your AIM Level 2 status advances to AIM Level 3 status if you have completed the AIM Level 2 responses and the continued quarterly benchmark monitoring results indicate that an AIM triggering event per Part 5.2.2

has occurred (i.e., the benchmark threshold continues to be exceeded for the same parameter(s)).

5.2.5 **AIM Level 3**

Your status changes from AIM Level 2 to AIM Level 3 if your continued quarterly benchmark monitoring results indicate that an AIM triggering event per Part 5.2.2 has occurred (i.e., the benchmark threshold continues to be exceeded for the parameter(s)), unless you qualify for an exception per Part 5.2.6.

5.2.5.1 **AIM Level 3 Responses.** if any of the triggering events in Part 5.2.2 occur, you must install structural source controls (e.g., permanent controls such as permanent cover, berms, and secondary containment), and/or treatment controls (e.g., sand filters, hydrodynamic separators, oil-water separators, retention ponds, and infiltration structures), except as provided in Part 5.2.6 (AIM Exceptions). The controls or treatment technologies or treatment train you install should be appropriate for the pollutants that triggered AIM Level 3 and should be more rigorous than the pollution prevention/good housekeeping-type stormwater control measures implemented under AIM Tier 2 in Part 5.2.4. You must select controls with pollutant removal efficiencies that are sufficient to bring your exceedances below the benchmark threshold. You must install such stormwater control measures for the discharge point(s) in question and for substantially identical discharge points (SIDPs), unless you individually monitor those SIDPs and demonstrate that AIM Level 3 requirements are not triggered at those discharge points.

5.2.5.2 **AIM Level 3 Deadlines.** You must identify the schedule for installing the appropriate structural source and/or treatment stormwater control measures within 14 days and install such measures within 60 days. If it is not feasible within 60 days, you may take up to 90 days to install such measures, documenting in your SWPPP per Part 5.3 why it is infeasible to install the measure within 60 days. EPA may also grant you an extension beyond 90 days, based on an appropriate demonstration by you, the operator.

5.2.5.3 **Continue Quarterly Benchmark Monitoring.** After compliance with AIM Level 3 responses and deadlines, you must continue quarterly benchmark monitoring for the next four quarters for the parameter(s) that caused the AIM triggering event at all affected discharge points, beginning no later than the next full quarter after compliance.

5.2.5.4 **AIM Level 3 Status Update.** While in AIM Level 3 status, you may either:

- a. **Return to Baseline Status.** Your AIM Level 3 status will return to baseline status if the AIM Level 3 response(s) have been met and the continued quarterly benchmark monitoring results indicate that an AIM triggering event per Part 5.2.2 has not occurred after four quarters of monitoring (i.e., the benchmark threshold is no longer exceeded for the parameter(s)). You may discontinue benchmark monitoring for that parameter until monitoring resumes in what would be year 4 of permit coverage per Part 4.2.2.3, or if you have fulfilled all benchmark monitoring requirements per Part 4.2.2.3, then you may discontinue monitoring for that parameter for the remainder of the permit.
- b. **Continue in AIM Level 3.** Your AIM Level 3 status will remain at Level 3 if you have completed the AIM Level 3 responses and the continued quarterly benchmark monitoring results indicate that an AIM triggering event per Part 5.2.2 has occurred (i.e., the benchmark threshold continues to be exceeded for the same parameter(s)). You must continue quarterly benchmark monitoring for the next

four quarters for the parameter(s) that caused the AIM triggering event at all affected discharge points, beginning no later than the next full quarter after compliance. If you continue to exceed the benchmark threshold for the same parameter even after compliance with AIM Level 3, EPA may require you to apply for an individual permit.

5.2.6 **AIM Exceptions**

Following the occurrence of an AIM triggering event per Part 5.2.2, at any point or tier level of AIM and following four quarters of benchmark monitoring (or sooner if the exceedance is triggered by less than four quarters of data), you may qualify for an exception below from AIM requirements and continued benchmark monitoring. Regardless if you qualify for and claim an exception, you must still review your SCMs, SWPPP, and other on-site activities to determine if actions or modifications are necessary or appropriate in light of your benchmark exceedance(s). If claiming an AIM exception, you must follow the requirements to demonstrate that you qualify for the exception as provided below. If you qualify for an exception, you are not required to comply with the AIM responses or the continuation of quarterly benchmark monitoring for any parameters for which you can demonstrate that the benchmark exceedance is:

- 5.2.6.1 **Solely Attributable to Natural Background Pollutant Levels:** You must demonstrate that the benchmark exceedance is solely attributable to the presence of that pollutant in natural background sources, provided that all the following conditions are met and you submit your analysis and documentation to the applicable EPA Regional Office upon request:
- a. The four-quarter average concentration of your benchmark monitoring results (or fewer than four-quarters of data that trigger an exceedance) is less than or equal to the concentration of that pollutant in the natural background; and
 - b. You document and maintain with your SWPPP, as required in Part 6.5.9, your supporting rationale for concluding that benchmark exceedances are in fact attributable solely to natural background pollutant levels. You must include in your supporting rationale any data previously collected by you or others (including literature studies) that describe the levels of natural background pollutants in your stormwater discharge. Natural background pollutants are those substances that are naturally occurring in soils or ground water. Natural background pollutants do not include legacy pollutants from earlier activity on your site, or pollutants in run-on from neighboring sources which are not naturally occurring, such as other industrial facilities or roadways.
- 5.2.6.2 **Due to Run-On:** You must demonstrate and obtain EPA agreement that run-on from a neighboring source (e.g., a source external to your facility) is the cause of the exceedance, provided that all the following conditions are met and you submit your analysis and documentation to the applicable EPA Regional Office for concurrence:
- a. After reviewing and revising your SWPPP, as appropriate, you should notify the other facility or entity contributing run-on to your discharges and request that they abate their pollutant contribution.
 - b. If the other facility or entity fails to take action to address their discharges or sources of pollutants, you should contact your applicable EPA Regional Office.

5.2.6.3 Due to an abnormal event: You must immediately document per Part 5.3 that the AIM triggering event was abnormal, a description explaining what caused the abnormal event, and how any measures taken within 14 days of such event will prevent a reoccurrence of the exceedance. You must also collect a sample during the next measurable storm event to demonstrate that the result is less than the benchmark threshold, in which case you do not trigger any AIM requirements based on the abnormal event. You must report the result of this sample in NeT-DMR in lieu of the result from the sample that caused the AIM triggering event. You may avail yourself of the "abnormal" demonstration opportunity at any AIM Level, one time per parameter, and one time per discharge point, which shall include substantially identical discharge points (SIDP), provided you qualify for the exception.

5.2.6.4 For Aluminum and Copper benchmark parameters only: Demonstrated to not result in an exceedance of your facility-specific value using the national recommended water quality criteria in-lieu of the applicable MSGP benchmark threshold:

To be eligible for the exception, you must demonstrate to EPA that your stormwater discharge(s) that exceeded the applicable nationally representative MSGP benchmark threshold would not result in an exceedance of a derived facility-specific value. The demonstration to EPA, which will be made publicly available, must meet the minimum elements below in order to be considered for and approved by the applicable EPA Regional Office. If you exceed the MSGP benchmark threshold for aluminum or copper, you must still comply with any applicable AIM requirements and additional benchmark monitoring until the demonstration is made to and approved by the applicable EPA Regional Office. In this case, EPA suggests that samples collected for any continued benchmark monitoring also be analyzed for the required input parameters for each model for efficiency. If you are an existing operator and you anticipate an exceedance of the MSGP benchmark(s) based on previous monitoring data and expect to utilize this exception(s), EPA recommends you begin the required data collection in your first year of permit coverage.

a. Aluminum:

i. Conditions for this exception are:

- 1) Use of EPA's 2018 National Recommended Aluminum Aquatic Life Criteria: <https://www.epa.gov/wqc/aquatic-life-criteria-aluminum>;
- 2) In-stream waterbody sampling for the three water quality input parameters for the recommended criteria model: pH, total hardness, and dissolved organic carbon (DOC); and
- 3) Completion of sampling events sufficient to capture spatial and temporal variability. Sampling events must adequately represent each applicable season at the facility's location, which would likely be over the course of at least one year. An equal number of ambient waterbody samples must be collected at a single upstream and downstream location from the operator's discharge point(s) to the receiving water of the United States. Where there exists no ambient source water upstream of the operator's discharge point(s) to the receiving water of the United States, samples of the ambient downstream waterbody conditions are sufficient.

ii. The demonstration provided to EPA must include, at minimum:

- 1) A description of the sampling, analysis, and quality assurance procedures that were followed for data collection, following the guidance in Section

3 of EPA's Industrial Stormwater Monitoring and Sampling Guide.

https://www.epa.gov/sites/production/files/2015-11/documents/msgp_monitoring_guide.pdf;

- 2) The input parameters and export of results from the Aluminum Criteria Calculator, available at: <https://www.epa.gov/sites/production/files/2018-12/aluminum-criteria-calculator-v20.xlsm>; and,
- 3) A narrative summary of results.

b. Copper (only for discharges to freshwater):

i. Conditions for this exception are:

- 1) Use of EPA's 2007 National Recommended Freshwater Copper Aquatic Life Criteria: <https://www.epa.gov/wqc/aquatic-life-criteria-copper>;
- 2) In-stream waterbody sampling for the 10 water quality input parameters to the BLM for copper: pH; dissolved organic carbon (DOC); alkalinity; temperature; major cations (calcium, magnesium, sodium, and potassium); and major anions (sulfate, chloride);
- 3) The water quality input parameters, with the exception of temperature, must fall within the range of conditions recommended for use in the BLM, found in Table 1-1 of the Data Requirements document: <https://www.epa.gov/sites/production/files/2015-11/documents/copper-data-requirements-training.pdf>; and
- 4) Completion of sampling events sufficient to capture spatial and temporal variability. Because some of the BLM input parameters are known to vary seasonally, EPA suggests a possible starting point of at least one sampling event per season.²⁰ Sampling events must adequately represent each applicable season at the facility's location, which would likely be over the course of at least one year. An equal number of ambient waterbody samples must be collected at a single upstream and downstream location from the operator's discharge point(s) to the receiving water of the United States. Where there exists no ambient source water upstream of the operator's discharge point(s) to the receiving water of the United States, samples of the ambient downstream waterbody conditions are sufficient.

ii. The demonstration provided to EPA must include, at minimum:

- 1) A description of the sampling, analysis, and quality assurance procedures that were followed for data collection, following the guidance in Section 3 of EPA's Industrial Stormwater Monitoring and Sampling Guide.

²⁰ EPA training materials on Copper BLM for Data Requirements states that spatial variability in the BLM input parameters caused by physical factors such as watershed size or the presence or absence of a point source discharge(s) to a waterbody should also be considered when determining how many sampling events should be collected when using the BLM to develop site-specific copper criteria. Spatial variability in the BLM input parameters should also be considered when determining how many sampling locations should be selected for development of site-specific copper criteria using the BLM. Regardless of the number of sampling events involved, data collection should reflect site-specific characteristics and consider special circumstances that may affect copper toxicity throughout the expected range of receiving water conditions. See <https://www.epa.gov/sites/production/files/2015-11/documents/copper-data-requirements-training.pdf>.

https://www.epa.gov/sites/production/files/2015-11/documents/msgp_monitoring_guide.pdf;

- 2) A discussion of how the data collected reflects the site-specific characteristics and how the operator considered special circumstances that may affect copper toxicity throughout the expected range of receiving water conditions;
- 3) The input file and export of the results from the BLM software, which can be requested at: <https://www.epa.gov/wqs-tech/copper-biotic-ligand-model>; and
- 4) A narrative summary of results.

5.2.6.5 Demonstrated to not result in any exceedance of water quality standards: You must demonstrate to EPA within 30 days of the AIM triggering event that the triggering event does not result in any exceedance of water quality standards. If it is not feasible to complete this demonstration within 30 days, you may take up to 90 days, documenting in your SWPPP why it is infeasible to complete the demonstration within 30 days. EPA may also grant you an extension beyond 90 days, based on an appropriate demonstration by you, the operator. The demonstration to EPA, which will be made publicly available, must include the following minimum elements in order to be considered for approval by the EPA Regional Office:

- a. the water quality standards applicable to the receiving water;
- b. the average flow rate of the stormwater discharge;
- c. the average instream flow rates of the receiving water immediately upstream and downstream of the discharge point;
- d. the ambient concentration of the parameter(s) of concern in the receiving water immediately upstream and downstream of the discharge point demonstrated by full-storm composite sampling;
- e. the concentration of the parameter(s) of concern in the stormwater discharge demonstrated by full-storm, flow-weighted composite sampling;
- f. any relevant dilution factors applicable to the discharge; and
- g. the hardness of the receiving water.

Timeframe of EPA Review of Your Submitted Demonstration: EPA will review and either approve or disapprove of such demonstration within 90 days of receipt (EPA may take up to 180 days upon notice to you before the 90th day that EPA needs additional time).

- **EPA Approval of Your Submitted Demonstration.** If EPA approves such demonstration within this timeframe, you have met the requirements for this exception, and you do not have to comply with the corresponding AIM requirements and continued benchmark monitoring.
- **EPA Disapproval of Your Submitted Demonstration.** If EPA disapproves such demonstration within this timeframe, you must comply with the corresponding AIM requirements and continued benchmark monitoring, as required. Compliance with the AIM requirements would begin from the date EPA notifies you of the disapproval unless you submit a Notice of Dispute to the applicable EPA Regional Office in Part 7 within 30 days of EPA's disapproval.

- **EPA Does Not Provide Response Related to Your Submitted Demonstration.** If EPA does not provide a response on the demonstration within this timeframe, you may submit to the EPA Regional Office in Part 7 a Notice of Dispute.
- **Operator Submittal of Notice of Dispute.** You may submit all relevant materials, including support for your demonstration and all notices and responses to the Water Division Director for the applicable EPA Region to review within 30 days of EPA's disapproval or after 90 days (or 180 days if EPA has provided notice that it needs more time) of not receiving a response from EPA.
- **EPA Review of Notice of Dispute.** EPA will send you a response within 30 days of receipt of the Notice of Dispute. Time for action by you, the operator, upon disapproval shall be tolled during the period from filing of the Notice of Dispute until the decision on the Notice of Dispute is issued by the Water Division Director for the applicable EPA Region.

5.3 Corrective Action and AIM Documentation

- 5.3.1 **Documentation within 24 Hours.** You must document the existence of any of the conditions listed in Parts 5.1.1, 5.2.3, 5.2.4, or 5.2.5 within 24 hours of becoming aware of such condition. You are not required to submit this documentation to EPA, unless specifically required or requested to do so. However, you must summarize your findings in the annual report per Part 7.4. Include the following information in your documentation:
- 5.3.2 Description of the condition or event triggering the need for corrective action review and/or AIM response. For any spills or leaks, include the following information: a description of the incident including material, date/time, amount, location, and reason for spill, and any leaks, spills or other releases that resulted in discharges of pollutants to waters of United States, through stormwater or otherwise;
- 5.3.2.1 Date the condition/triggering event was identified;
- 5.3.2.2 Description of immediate actions taken pursuant to Part 5.1.3.1 to minimize or prevent the discharge of pollutants. For any spills or leaks, include response actions, the date/time clean-up completed, notifications made, and staff involved. Also include any measures taken to prevent the reoccurrence of such releases (see Part 2.1.2.4); and
- 5.3.2.3 A statement, signed and certified in accordance with Appendix B, Subsection 11.
- 5.3.3 **Documentation within 14 Days.** You must also document the corrective actions and/or AIM responses you took or will take as a result of the conditions listed in Part 5.1.1, 5.2.3, 5.2.4, and/or 5.2.5 within 14 days from the time of discovery of any of those conditions/triggering events. Provide the dates when you initiated and completed (or expect to complete) each corrective action and/or AIM response. If infeasible to complete the necessary corrective actions and/or AIM responses within the specified timeframe, per Parts 5.1.1, 5.2.3, 5.2.4, or 5.2.5, you must document your rationale and schedule for installing the controls and making them operational as soon as practicable after the specified timeframe. If you notified EPA regarding an allowed extension of the specified timeframe, you must document your rationale for an extension. Include any additional information and/or rationale that is required and/or applicable to the specified corrective action and/or AIM response in Part 5. You are not required to submit this documentation to EPA, unless specifically required or

requested to do so. However, you must summarize your corrective actions and/or AIM responses in the Annual Report per Part 7.4.

6. Stormwater Pollution Prevention Plan (SWPPP)

You must prepare a SWPPP for your facility before submitting your NOI for permit coverage. If you prepared a SWPPP for coverage under a previous version of this permit, you must review and update the SWPPP to implement all provisions of this permit prior to submitting your NOI. The SWPPP does not contain effluent limitations; such limitations are contained in Parts 2, 8, and 9 of the permit. The SWPPP is intended to document the selection, design, and installation of stormwater control measures to meet the permit's effluent limits. The SWPPP is a living document. Facilities must keep their SWPPP up-to-date throughout their permit coverage, such as making revisions and improvements to their stormwater management program based on new information and experiences with major storm events. As distinct from the SWPPP, the additional documentation requirements (see Part 6.5) are so that you document the implementation (including inspection, maintenance, monitoring, and corrective action) of the permit requirements.

Note: Any discharges not expressly authorized in this permit cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA, state, or local authorities after issuance of this permit via any means, including the Notice of Intent (NOI) to be covered by the permit, the SWPPP, during an inspection, etc.

6.1 Person(s) Responsible for Preparing the SWPPP

You shall prepare the SWPPP in accordance with good engineering practices and to industry standards. The SWPPP may be developed by either a person on your staff or a third party you hire, but it must be developed by a "qualified person" and must be certified per the signature requirements in Part 6.2.7. If EPA concludes that the SWPPP is not in compliance with Part 6.2 of this permit, EPA may require the SWPPP to be reviewed, amended 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.

Note: A "qualified person," as defined in Appendix A, is a person knowledgeable in the principles and practices of industrial stormwater controls and pollution prevention, and possesses the education and ability to assess conditions at the industrial facility that could impact stormwater quality, and the education and ability to assess the effectiveness of stormwater controls selected and installed to meet the requirements of the permit.

6.2 Required Contents of Your SWPPP

To be covered under this permit, your SWPPP must contain all of the following elements:

- Stormwater pollution prevention team (Part 6.2.1);
- Site description (Part 6.2.2);
- Summary of potential pollutant sources (Part 6.2.3);
- Description of stormwater control measures (Part 6.2.4);
- Schedules and procedures (Part 6.2.5);
- Documentation to support eligibility pertaining to other federal laws (Part 6.2.6); and

- Signature requirements (Part 6.2.7).

Where your SWPPP refers to procedures in other facility documents, such as a Spill Prevention, Control and Countermeasure (SPCC) Plan or an Environmental Management System (EMS), copies of the relevant portions of those documents must be kept with your SWPPP.

6.2.1 Stormwater Pollution Prevention Team. You must identify the staff members (by name or title) that comprise the facility's stormwater pollution prevention team as well as their individual responsibilities. Your stormwater pollution prevention team is responsible for overseeing development of the SWPPP, any modifications to it, and for implementing and maintaining control measures and taking corrective actions and/or AIM responses, when required. Each member of the stormwater 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 your SWPPP, and other relevant documents or information that must be kept with the SWPPP.

6.2.2 Site Description. Your SWPPP must include the following:

6.2.2.1 Activities at the facility. Provide a description of the nature of the industrial activities at your facility.

6.2.2.2 General location map. Provide a general location map (e.g., U.S. Geological Survey (USGS) quadrangle map) with enough detail to identify the location of your facility and all receiving waters for your stormwater discharges.

6.2.2.3 Site map. Provide a map showing:

- a. Boundaries of the property and the size of the property in acres;
- b. Location and extent of significant structures and impervious surfaces;
- c. Directions of stormwater flow (use arrows), including flows with a significant potential to cause soil erosion;
- d. Locations of all stormwater control measures;
- e. Locations of all receiving waters, including wetlands, in the immediate vicinity of your facility. Indicate which waterbodies are listed as impaired and which are identified by your state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 waters;
- f. Locations of all stormwater conveyances including ditches, pipes, and swales;
- g. Locations of potential pollutant sources identified under Part 6.2.3.2;
- h. Locations where significant spills or leaks identified under Part 6.2.3.3 have occurred;
- i. Locations of all stormwater monitoring points;
- j. Locations of stormwater inlets and discharge points, with a unique identification code for each discharge point (e.g., 001, 002), indicating if you are treating one or more discharge points as "substantially identical" under Parts 3.2.4.5, 6.2.5.3, and 4.1.1, and an approximate outline of the areas draining to each discharge point;
- k. If applicable, municipal separate storm sewer systems (MS4s) and where your stormwater discharges to them;
- l. Areas of Endangered Species Act-designated critical habitat for endangered or threatened species, if applicable.

- m. Locations of the following activities where such activities are exposed to precipitation:
 - ii. fueling stations;
 - iii. vehicle and equipment maintenance and/or cleaning areas;
 - iv. loading/unloading areas;
 - v. locations used for the treatment, storage, or disposal of wastes;
 - vi. liquid storage tanks;
 - vii. processing and storage areas;
 - viii. 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;
 - ix. transfer areas for substances in bulk;
 - x. machinery;
 - xi. locations and sources of run-on to your site from adjacent property that contains significant quantities of pollutants.

6.2.3 **Summary of Potential Pollutant Sources.** You must describe in the SWPPP areas at your facility where industrial materials or activities are exposed to stormwater or from which authorized non-stormwater discharges originate. Industrial materials or activities include but are not limited to: material handling equipment or activities; industrial machinery; raw materials; industrial production and processes; and intermediate products, by-products, final products, and waste products. 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. For structures located in areas of industrial activity, you must be aware that the structures themselves are potential sources of pollutants. This could occur, for example, when metals such as aluminum or copper are leached from the structures as a result of acid rain.

For each area identified, the description must include:

- 6.2.3.1** **Activities in the Area.** A list of the industrial activities exposed to stormwater (e.g., material storage; equipment fueling, maintenance, and cleaning; cutting steel beams).
- 6.2.3.2** **Pollutants.** A list of the pollutant(s) or pollutant constituents (e.g., crankcase oil, zinc, sulfuric acid, cleaning solvents) associated with each identified activity, which could be exposed to rainfall or snowmelt and could be discharged from your facility. The pollutant list must include all significant materials that have been handled, treated, stored or disposed, and that have been exposed to stormwater in the three years prior to the date you prepare or amend your SWPPP.
- 6.2.3.3** **Spills and Leaks.** You must document where potential spills and leaks could occur that could contribute pollutants to stormwater discharges, and the corresponding discharge point(s) that would be affected by such spills and leaks. You must document all significant spills and leaks of oil or toxic or hazardous substances that actually occurred at exposed areas, or that drained to a stormwater conveyance, in the three years prior to the date you prepare or amend your SWPPP.

Note: Significant 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 you of the reporting requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302 relating to spills or other releases of oils or hazardous substances.

6.2.3.4 Unauthorized Non-Stormwater Discharges Evaluation. By the end of the first year of your permit coverage under this permit, you must inspect and document all discharge points at your facility as part of the SWPPP. If it is infeasible to complete the evaluation within the first year of permit coverage, you must document in your SWPPP why this is the case and identify the schedule by which you expect to complete the evaluation. Documentation of your evaluation must include:

- a. The date of the evaluation;
- b. A description of the evaluation criteria used;
- c. A list of the discharge points or onsite drainage points that were directly observed during the evaluation; and
- d. If there are any unauthorized non-stormwater discharges (see Part 1.2.2 for the exclusive list of authorized non-stormwater discharges under this permit) you must immediately take action(s), such as implementing control measures, to eliminate those discharges or seek an individual NPDES wastewater permit and document that you obtained the permit (for example, a floor drain was sealed, a sink drain was re-routed to sanitary, or an NPDES permit application was submitted for an unauthorized cooling water discharge).
- e. An explanation of everything you did to immediately eliminate the unauthorized discharge per Part 5 Corrective Actions.

6.2.3.5 Salt Storage. You must document the location of any storage piles containing salt used for deicing or other commercial or industrial purposes.

6.2.3.6 Sampling Data. Existing permitted facilities must summarize all stormwater discharge sampling data collected at the facility during the previous permit term. The summary shall include a narrative description (and may include data tables/figures) that adequately summarizes the collected sampling data to support identification of potential pollution sources at your facility. New dischargers and new sources must provide a summary of any available stormwater data they may have.

6.2.4 Description of Stormwater Control Measures to Meet Technology-Based and Water Quality-Based Effluent Limits. You must document the location and type of stormwater control measures you have specifically chosen and/or designed to comply with:

6.2.4.1 Part 2.1.2: Non-numeric technology-based effluent limits;

6.2.4.2 Parts 2.1.3 and 8: Applicable numeric effluent limitations guidelines-based limits;

6.2.4.3 Part 2.2: Water quality-based effluent limits;

6.2.4.4 Part 2.3: Any additional measures that formed the basis of eligibility regarding Endangered Species Act-listed threatened and endangered species or their critical habitat, National Historic Preservation Act historic properties, and/or federal CERCLA Site requirements;

6.2.4.5 Parts 8 and 9: Applicable effluent limits;

6.2.4.6 Regarding your control measures, you must also document, as appropriate:

- a. How you addressed the selection and design considerations in Part 2.1.1;
- b. How they address the pollutant sources identified in Part 6.2.3.

Effluent limit requirements in Part 2.1.2 that do not involve the site-specific selection of a stormwater control measure or are specific activity requirements (e.g., "cleaning catch basins when the depth of debris reaches two-thirds (2/3) of the sump depth, or in line with manufacturer specifications, whichever is lower, and keeping the debris surface at least six inches below the lowest outlet pipe") are marked with an asterisk (*). For the requirements marked with an asterisk, you may include extra information, or you may just "copy-and-paste" these effluent limits word-for-word into your SWPPP without providing additional documentation.

6.2.5 Schedules and Procedures

6.2.5.1 Pertaining to Stormwater Control Measures Used to Comply with the Effluent Limits in Part 2. You must document the following in your SWPPP:

- a. **Good Housekeeping (see Part 2.1.2.2)** – A schedule or the convention used for determining when pickup and disposal of waste materials occurs. Also provide a schedule for routine inspections for leaks and conditions of drums, tanks and containers.
- b. **Maintenance (see Part 2.1.2.3)** – Preventative maintenance procedures, including regular inspections, testing, maintenance and repair of all stormwater control measures to avoid situations that may result in leaks, spills, and other releases, and any back-up practices in place should a storm event resulting in a stormwater discharge occur while a control measure is off-line. The SWPPP shall include the schedule or frequency for maintaining all control measures used to comply with the effluent limits in Part 2;
- c. **Spill Prevention and Response Procedures (see Part 2.1.2.4)** – Procedures for preventing and responding to spills and leaks, including notification procedures. For preventing spills, include in your SWPPP the stormwater control measures for material handling and storage, and the procedures for preventing spills that can contaminate stormwater. Also specify cleanup equipment, procedures and spill logs, as appropriate, in the event of spills. You 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 NPDES permit for the facility, provided that you keep a copy of that other plan onsite and make it available for review consistent with Part 6.4;
- d. **Erosion and Sediment Controls (see Part 2.1.2.5)** – If you use polymers and/or other chemical treatments as part of your erosion and sediment controls, you must identify the polymers and/or chemicals used and the purpose;
- e. **Employee Training (see Part 2.1.2.8)** – The elements of your employee training plan shall include all, but not necessarily limited to, the requirements set forth in Part 2.1.2.8, and also the following:
 - ii. The content of the training;

- iii. The frequency/schedule of training for employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of this permit;
- iv. A log of the dates on which specific employees received training.

6.2.5.2 Pertaining to Inspections and Assessments. You must document in your SWPPP your procedures for performing, as appropriate, the types of inspections specified by this permit, including:

- a. Routine facility inspections (see Part 3.1) and;
- b. Quarterly visual assessment of stormwater discharges (see Part 3.2).

For each type of inspection performed, your SWPPP must identify:

- a. Person(s) or positions of person(s) responsible for the inspection;
- b. Schedules for conducting inspections, including tentative schedule for facilities in climates with irregular stormwater discharges (see Part 3.2.4);
- c. Specific items to be covered by the inspection, including schedules for specific discharge points.

If you are invoking the exception for inactive and unstaffed facilities relating to routine facility inspections and quarterly visual assessments, you must include in your SWPPP the information to support this claim as required by Parts 3.1.5 and 3.2.4.

6.2.5.3 Pertaining to Monitoring

- a. **Procedures for Each Type of Monitoring.** You must document in your SWPPP procedures for conducting the six types of analytical stormwater discharge monitoring specified by this permit, where applicable to your facility, including:
 - i. Indicator monitoring (Part 4.2.1);
 - ii. Benchmark monitoring (Part 4.2.2);
 - iii. Effluent limitations guidelines monitoring (Part 4.2.3);
 - iv. State- or tribal-specific monitoring (Part 4.2.4);
 - v. Impaired waters monitoring (Part 4.2.5);
 - vi. Other monitoring as required by EPA (Part 4.2.6).
- b. **Documentation for Each Type of Monitoring.** For each type of stormwater discharge monitoring, you must document in your SWPPP:
 - i. Locations where samples are collected, including any determination that two or more discharge points are substantially identical;
 - ii. Parameters for sampling and the frequency of sampling for each parameter;

- iii. Schedules for monitoring at your facility, including schedule for alternate monitoring periods for climates with irregular stormwater discharges (see Part 4.1.6);
 - iv. Any numeric control values (benchmark thresholds, effluent limitations guidelines, TMDL-related requirements, or other requirements) applicable to stormwater discharges from each discharge point;
 - v. Procedures (e.g., responsible staff, logistics, laboratory to be used) for gathering storm event data, as specified in Part 4.1.
- c. **Exception for Inactive and Unstaffed Facilities.** If you are invoking the exception for inactive and unstaffed facilities for indicator monitoring, benchmark monitoring or impaired waters monitoring, you must include in your SWPPP the information to support this claim as required by Part 4.2.2.5 and 4.2.5.2.
- d. **Exception for Substantially Identical Discharge Points (SIDP).** You must document the following in your SWPPP if you plan to use the SIDP exception for your quarterly visual assessment requirements in Part 3.2.4 or your indicator, benchmark, or impaired waters monitoring requirements in Parts 4.2.1, 4.2.2, and 4.2.5, respectively (see also Part 4.1.1):
 - i. Location of each SIDP;
 - ii. Description of the general industrial activities conducted in the drainage area of each discharge point;
 - iii. Description of the control measures implemented in the drainage area of each discharge point;
 - iv. Description of the exposed materials located in the drainage area of each discharge point that are likely to be significant contributors of pollutants via stormwater discharges;
 - v. An estimate of the runoff coefficient of the drainage areas (low = under 40%; medium = 40 to 65%; high = above 65%);
 - vi. Why the discharge points are expected to discharge substantially identical effluents.

6.2.6 **Documentation to Support Eligibility Pertaining to Other Federal Laws**

6.2.6.1 **Documentation Regarding Endangered Species Act-Listed Threatened and Endangered Species and Critical Habitat Protection.** You must keep with your SWPPP the documentation supporting your determination with regard to Part 1.1.4.

6.2.6.2 **Documentation Regarding National Historic Preservation Act Historic Properties.** You must keep with your SWPPP the documentation supporting your determination with regard to Part 1.1.5.

6.2.7 **Signature Requirements.** You must sign and date your SWPPP in accordance with Appendix B, Subsection 11.

6.3 **Required SWPPP Modifications**

You must modify your SWPPP based on any corrective actions and deadlines required under Part 5. You must sign and date any SWPPP modifications in accordance with Appendix B, Subsection 11.

6.4 **SWPPP Availability**

You must retain a complete copy of your 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 your permit eligibility pursuant to Part 1.1 of this permit, as well as your signed and dated certification page. Regardless of the format, the SWPPP must be immediately available to facility employees, EPA, a state or tribe, the operator of an MS4 into which you discharge, and representatives of the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) at the time of an on-site inspection.

Your current SWPPP or certain information from your current SWPPP described below must also be made available to the public (except any confidential business information (CBI) or restricted information [as defined in Appendix A]), but you must clearly identify those portions of the SWPPP that are being withheld from public access; to do so, you must comply with one of the following two options:

6.4.1 **Making Your SWPPP Publicly Available**

You have three options to comply with the public availability requirements for the SWPPP: attaching your SWPPP to your NOI; providing a URL of your SWPPP in your NOI; or providing SWPPP information in your NOI. To remain current for all three options, you must update your SWPPP (by updating the attachment per Part 6.4.1.1 via a Change NOI, updating your webpage per Part 6.4.1.2, or updating the SWPPP information in the NOI per Part 6.4.1.3 via a Change NOI no later than 45 days after conducting the final routine facility inspection for the year required in Part 3.1. You may switch your preferred option throughout your permit coverage, but you must update your NOI as necessary to indicate your change in option. You are not required to post any CBI or restricted information (as defined in Appendix A) (such information may be redacted), but you must clearly identify those portions of the SWPPP that are being withheld from public access. CBI may not be withheld from those staff cleared for CBI review within EPA, USFWS or NMFS.

6.4.1.1 Attaching Your SWPPP to your NOI: You may attach a copy of your SWPP, and any SWPPP modifications, records, and other reporting elements that must be kept with your SWPPP, to your NOI in NeT-MSGP.

6.4.1.2 Providing a URL of your SWPPP in your NOI: You may provide a URL in your NOI in NeT-MSGP where your SWPPP can be found, and maintain your current SWPPP at this URL. You must post any SWPPP modifications, records, and other reporting elements that must be kept with your SWPPP required for the previous year at the same URL as the main body of the SWPPP.

6.4.1.3 Providing SWPPP Information in your NOI. You may include the following information in your NOI in NeT-MSGP. Irrespective of this requirement, EPA may provide access to portions of your SWPPP to a member of the public upon request (except any CBI or restricted information (as defined in Appendix A)).

- a. Onsite industrial activities exposed to stormwater, including potential spill and leak areas (see Parts 6.2.3.1, 6.2.3.3 and 6.2.3.5);
- b. Pollutants or pollutant constituents associated with each industrial activity exposed to stormwater that could be discharged in stormwater and/or any authorized non-stormwater discharges listed in Part 1.2.2 (see Part 6.2.3.2);
- c. Stormwater control measures you employ to comply with the non-numeric technology-based effluent limits required in Part 2.1.2 and Part 8, and any other measures taken to comply with the requirements in Part 2.2 Water Quality-Based Effluent Limitations (see Part 6.2.4). If you use polymers and/or other chemical treatments as part of your erosion and sediment controls, you must identify the polymers and/or chemicals used and the purpose; and
- d. Schedule for good housekeeping and maintenance (see Part 6.2.5.1) and schedule for all inspections required in Part 3 (see Part 6.2.5.2).

6.5 Additional Documentation Requirements

You are required to keep the following inspection, monitoring, and certification records with your SWPPP that together keep your records complete and up-to-date, and demonstrate your full compliance with the conditions of this permit:

- 6.5.1 A copy of the NOI submitted to EPA along with any correspondence exchanged between you and EPA specific to coverage under this permit;
- 6.5.2 A copy of the authorization email you receive from the EPA assigning your NPDES ID;
- 6.5.3 A copy of this permit (either a hard copy or an electronic copy easily available to SWPPP personnel);
- 6.5.4 Documentation of any maintenance and repairs of stormwater control measures, including the date(s) of regular maintenance, date(s) of discovery of areas in need of repair/replacement, and for repairs, date(s) that the control measure(s) returned to full function, and the justification for any extended maintenance/repair schedules (see Part 2.1.2.3);
- 6.5.5 All inspection reports, including the Routine Facility Inspection Reports (see Part 3.1.6) and Visual Assessment Documentation (see Part 3.2.3);
- 6.5.6 Description of any deviations from the schedule for visual assessments and/or monitoring, and the reason for the deviations (e.g., adverse weather or it was impracticable to collect samples within the first 30 minutes of a measurable storm event) (see Parts 3.2.4 and 4.1.5);
- 6.5.7 Corrective action documentation required per Part 5.1;
- 6.5.8 Documentation of any benchmark threshold exceedances, which AIM Level triggering event the exceedance caused, and AIM response you employed per Part 5.2, including:
 - 6.5.8.1 The AIM triggering event;
 - 6.5.8.2 The AIM response taken;
 - 6.5.8.3 Any rationale that SWPPP/SCM changes were unnecessary;

- 6.5.8.4** Any documentation required to meet any AIM exception per Part 5.2.6.
- 6.5.9** Documentation to support any determination that pollutants of concern are not expected to be present above natural background levels if you discharge directly to impaired waters, and that such pollutants were not detected in your discharge after three years or were solely attributable to natural background sources (see Part 4.2.5.1); and
- 6.5.10** Documentation to support your claim that your facility has changed its status from active to inactive and unstaffed with respect to the requirements to conduct routine facility inspections (see Part 3.1.5), quarterly visual assessments (see Part 3.2.4.4), benchmark monitoring (see Part 4.2.2.4), and/or impaired waters monitoring (see Part 4.2.5.2).

7. Reporting and Recordkeeping

7.1 Electronic Reporting Requirement

You must submit all NOIs, NOTs, NECs, Annual Reports, Discharge Monitoring Reports (DMRs), and other reporting information as appropriate electronically, unless the EPA Regional Office grants you a waiver based on one of the following conditions:

- If your headquarters is physically located in a geographic area (i.e., zip code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission; or
- If you have limitations regarding available computer access or computer capability.

Waivers are only granted for a one-time use for a single information submittal, e.g., an initial waiver for an NOI does not apply for the entire term of the permit for other forms. If you need to submit information on paper after your first waiver, you must apply for a new waiver. The EPA Regional Office may extend a waiver on a case-by-case basis.

If you wish to obtain a waiver from submitting a report electronically, you must submit a request to the applicable EPA Regional Office, found in Part 7.9. In that request you must document which exemption you meet, provide evidence supporting any claims, and a copy of your completed paper form. A waiver may only be considered granted once you receive written confirmation from EPA or its authorized representative.

7.2 Submitting Information to EPA

- 7.2.1 Submitting Forms via NeT-MSGP.** You must submit all required information via EPA's electronic NPDES eReporting tool (NeT), unless the permit states otherwise or unless you have been granted a waiver per Part 7.1. You can both prepare and submit required information in NeT-MSGP using specific forms, also found in the permit's appendices. To access NeT-MSGP, go to <https://cdxnodengn.epa.gov/net-msgp/action/login>.

Information you must submit to EPA via NeT-MSGP:

- Notice of Intent (NOI) (Part 1.3);
- Change Notice of Intent (NOI) (Part 1.3.4);

- No Exposure Certification (NEC) (Part 1.5);
- Notice of Termination (NOT) (Part 1.4); and
- Annual Report (AR) (Part 7.4).

Note: You must submit Discharge Monitoring Reports (see Part 7.3) electronically using Net-DMR.

If the applicable EPA Regional Office grants you a waiver from electronic reporting, you must use the required forms found in the Appendices.

7.2.2 Other Information Required to be Submitted. Information required to be submitted to the applicable EPA Regional Office at the address in Part 7.8:

- New Dischargers and New Sources to Water Quality-Impaired Waters (Part 1.1.6.2);
- Exceedance Report for Numeric Effluent Limitations (Part 7.5); and
- Additional Reporting (Part 7.6)

7.3 Reporting Monitoring Data to EPA

7.3.1 Submitting Monitoring Data via NeT-DMR. You must submit all stormwater discharge monitoring data collected pursuant to Part 4 to EPA using Net-DMR, EPA's electronic DMR system (for more information visit: <https://www.epa.gov/compliance/npdes-ereporting> (unless the applicable EPA Regional Office grants you a waiver from electronic reporting, in which case you may submit a paper DMR form) no later than 30 days after you have received your complete laboratory results for all monitoring discharge points for the reporting period. Your monitoring requirements (i.e., parameters required to be monitored and sample frequency) will be prepopulated on your electronic Discharge Monitoring Report (DMR) form based on the information you reported on your NOI form through the NeT-MSGP. Accordingly, you must certify the following changes to your monitoring frequency to EPA by submitting a Change NOI in NeT-MSGP, unless EPA has completed the development of planned features in the electronic systems to process submitted monitoring results to automatically turn monitoring on/off as applicable, which will trigger changes to your monitoring requirements in Net-DMR:

- 7.3.1.1** All benchmark monitoring requirements have been fulfilled for the permit term;
- 7.3.1.2** All impaired waters monitoring requirements have been fulfilled for the permit term;
- 7.3.1.3** Benchmark monitoring requirements no longer apply because the EPA Regional Office has concurred with your assessment that run-on from a neighboring source is the cause of the exceedance;
- 7.3.1.4** Benchmark and/or impaired monitoring requirements no longer apply because your facility is inactive and unstaffed;
- 7.3.1.5** Benchmark and/or impaired monitoring requirements now apply because your facility has changed from inactive and unstaffed to active and staffed;
- 7.3.1.6** For Sector G2 only: Discharges from waste rock and overburden piles have exceeded benchmark thresholds;
- 7.3.1.7** A numeric effluent limitation guideline has been exceeded;

7.3.1.8 A numeric effluent limitation guideline exceedance is back in compliance.

7.3.2 **When You Can Discontinue Submission of Monitoring Data.** Once you have completely fulfilled applicable monitoring requirements, you are no longer required to report monitoring results using Net-DMR. If you have only partially fulfilled your benchmark monitoring and/or impaired waters monitoring requirements (e.g., your four quarterly average is below the benchmark for some, but not all, parameters; you did not detect some, but not all, impairment pollutants), you must continue to report your results in Net-DMR for the remaining monitoring requirements. If the EPA Regional Office grants you a waiver per Part 7.1, you must submit paper reporting forms by the same deadline.

7.3.3 **State or Tribal Required Monitoring Data.** See Part 9 for specific reporting requirements applicable to individual states or tribes.

7.3.4 **Submission Deadline for Indicator and Benchmark Monitoring Data.** For both indicator and benchmark monitoring, you are required to submit sampling results to EPA no later than 30 days after receiving your complete laboratory results for all monitored discharge points for each monitoring period that you are required to collect samples, per Part 4.2.1. and Part 4.2.2. If you collect samples during multiple storm events in a single quarter (e.g., due to adverse weather conditions, climates with irregular stormwater discharges, or areas subject to snow), you are required to submit all sampling results for each storm event to EPA within 30 days of receiving all laboratory results for the event. Or, for any of your monitored discharge points that did not have a discharge within the reporting period, using Net-DMR, you must report that no discharges occurred for that discharge point no later than 30 days after the end of the reporting period.

7.4 **Annual Report**

You must submit an Annual Report to EPA via NeT-MSGP, per Part 7.2, by January 30th for each year of permit coverage containing information generated from the past calendar year. You must include the following information in the Annual Report:

7.4.1 A summary of your past year's routine facility inspection documentation required (Part 3.1.6). In addition, if you are an operator of an airport facility (Sector S) that is subject to the airport effluent limitations guidelines and are complying with the Part 8.S.8.1 effluent limitation through the use of non-urea-containing deicers, provide a statement certifying that you do not use pavement deicers containing urea. (Note: Operators of airport facilities that are complying with Part 8.S.8.1 by meeting the numeric effluent limitation for ammonia do not need to include this statement.)

7.4.2 A summary of your past year's visual assessment documentation (see Part 3.2.3);

7.4.3 A summary of your past year's corrective action and any required AIM documentation (see Part 5.3). If you have not completed required corrective action or AIM responses at the time you submit your annual report, you must describe the status of any outstanding corrective action(s) or AIM responses. Also describe any incidents of noncompliance in the past year or currently ongoing, or if none, provide a statement that you are in compliance with the permit.

Your Annual Report must also include a statement, signed and certified in accordance with Appendix B, Subsection 11.

7.5 Numeric Effluent Limitations Exceedance Report

If follow-up monitoring per Part 4.2.3.3 exceeds a numeric effluent limit, you must submit an Exceedance Report to EPA no later than 30 days after you have received your laboratory results. Send the Exceedance Report to the applicable EPA Regional Office listed in Part 7.8, and report the monitoring data through Net-DMR. Your report must include the following:

- 7.5.1 NPDES ID;
- 7.5.2 Facility name, physical address and location;
- 7.5.3 Name of receiving water;
- 7.5.4 Monitoring data from this and the preceding monitoring event(s);
- 7.5.5 An explanation of the situation, including what you have done and intend to do (should your corrective actions not yet be complete) to correct the violation;
- 7.5.6 An appropriate contact name and phone number.

7.6 Additional Standard Recordkeeping and Reporting Requirements

In addition to the reporting requirements stipulated in Part 7, you are also subject to the standard permit reporting provisions of Appendix B, Subsection 12. You must submit the following reports to the applicable EPA Regional Office listed in Part 7.8, as applicable. If you discharge through an MS4, you must also submit these reports to the MS4 operator (identified pursuant to Part 6.2.2).

- 7.6.1 24-hour reporting (see Appendix B, Subsection 12.F) – You must report any noncompliance which may endanger health or the environment. Any information must be provided orally within 24 hours from the time you become aware of the circumstances;
- 7.6.2 5-day follow-up reporting to the 24-hour reporting (see Appendix B, Subsection 12.F) – A written submission must also be provided within five days of the time you become aware of the circumstances;
- 7.6.3 Reportable quantity spills (see Part 2.1.2.4) – You must provide notification, as required under Part 2.1.2.4, as soon as you have knowledge of a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity;
- 7.6.4 Planned changes (see Appendix B, Subsection 12.A) – You must give notice to EPA promptly, no fewer than 30 days prior to making any planned physical alterations or additions to the permitted facility that qualify the facility as a new source or that could significantly change the nature or significantly increase the quantity of pollutants discharged;
- 7.6.5 Anticipated noncompliance (see Appendix B, Subsection 12.B) – You must give advance notice to EPA of any planned changes in the permitted facility or activity which you anticipate will result in noncompliance with permit requirements;
- 7.6.6 Compliance schedules (see Appendix B, Subsection 12.F) – Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements

contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date;

7.6.7 Other noncompliance (see Appendix B, Subsection 12.G) – You must report all instances of noncompliance not reported in your Annual Report, compliance schedule report, or 24-hour report at the time monitoring reports are submitted; and

7.6.8 Other information (see Appendix B, Subsection 12.H) – You must promptly submit facts or information if you become aware that you failed to submit relevant facts in your NOI, or that you submitted incorrect information in your NOI or in any report.

7.7 Record Retention Requirements

You must retain copies of your SWPPP (including any modifications made during the term of this permit), additional documentation requirements pursuant to Part 6.5 (including documentation related to any corrective actions or AIM responses taken pursuant to Part 5), all reports and certifications required by this permit, monitoring data, and records of all data used to complete the NOI to be covered by this permit, for a period of at least three years from the date that your coverage under this permit expires or is terminated.

7.8 Addresses for Reports

Permit Part	EPA Region	Areas Covered	Address
7.8.1	1	Connecticut Massachusetts New Hampshire Rhode Island Vermont	U.S. EPA Region 1 Water Division Stormwater and Construction Permits Section 5 Post Office Square, Ste. 100 (06-1) Boston, MA 02109-3912
7.8.2	2	New Jersey New York	U.S. EPA Region 2 NPDES Stormwater Program 290 Broadway, 24th Floor New York, NY 10007-1866
		Puerto Rico Virgin Islands	U.S. EPA Region 2 Caribbean Environmental Protection Division NPDES Stormwater Program City View Plaza II – Suite 7000 48 Rd. 165 Km 1.2 Guaynabo, PR 00968-8069
7.8.3	3	Delaware District of Columbia Maryland Pennsylvania Virginia West Virginia	U.S. EPA Region 3 NPDES Permits Section, MC 3WD41 1650 Arch Street Philadelphia, PA 19103
7.8.4	4	Alabama Florida Georgia Kentucky Mississippi North Carolina	U.S. EPA Region 4 Water Division NPDES Stormwater Program Atlanta Federal Center 61 Forsyth Street SW Atlanta, GA 30303-3104

Permit Part	EPA Region	Areas Covered	Address
		South Carolina Tennessee	
7.8.5	5	Illinois Indiana Michigan Minnesota Ohio Wisconsin	U.S. EPA Region 5 NPDES Program Branch 77 W. Jackson Blvd. MC WP16J Chicago, IL 60604-3507
7.8.6	6	Arkansas Louisiana Oklahoma Texas New Mexico (except see Region 9 for Navajo lands, and see Region 8 for Ute Mountain Reservation lands)	U.S. EPA Region 6 Permitting Section (WD-PE) 1201 Elm Street, Suite 500 Dallas, TX 75270
7.8.7	7	Iowa Kansas Missouri Nebraska	U.S. EPA Region 7 NPDES Stormwater Program 11201 Renner Blvd Lenexa, KS 66219
7.8.8	8	Colorado Montana North Dakota South Dakota Wyoming Utah (except see Region 9 for Goshute Reservation and Navajo Reservation lands) The Ute Mountain Reservation in New Mexico The Pine Ridge Reservation in Nebraska	EPA Region 8 Storm Water Program MC: 8P-W-WW 1595 Wynkoop Street Denver, CO 80202-1129

Permit Part	EPA Region	Areas Covered	Address
7.8.9	9	Arizona California Hawaii Nevada Guam American Samoa The Commonwealth of the Northern Mariana Islands The Goshute Reservation in Utah and Nevada The Navajo Reservation in Utah New Mexico, and Arizona The Duck Valley Reservation in Idaho Fort McDermitt Reservation in Oregon	U.S. EPA Region 9 Water Division NPDES Stormwater Program (WTR-2-3) 75 Hawthorne Street San Francisco, CA 94105-3901
7.8.10	10	Alaska Idaho Oregon (except see Region 9 for Fort McDermitt Reservation) Washington	U.S. EPA Region 10 Water Division NPDES Stormwater Program (19-C04) 1200 6th Avenue, Suite 155 Seattle, WA 98101-3188
7.8.11	State and Tribal Addresses		See Part 9 (states and tribes) for the addresses of applicable states or tribes that require submission of information to their agencies.

Part 8 – Sector-Specific Requirements for Industrial Activity**Subpart S – Sector S – Air Transportation**

You must comply with Part 8 sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

8.S.1 Covered Stormwater Discharges

The requirements in Subpart S apply to stormwater discharges associated with industrial activity from Air Transportation facilities identified by the SIC Codes specified under Sector S in Table D-1 of Appendix D of the permit.

8.S.2 Limitation on Coverage

8.S.2.1 *Limitations on Coverage.* This permit authorizes stormwater 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.

Note: the term “deicing” in this permit will generally be used to mean both deicing (removing frost, snow or ice) and anti-icing (preventing accumulation of frost, snow or ice) activities, unless specific mention is made otherwise.

8.S.2.2 *Prohibition of Non-Stormwater Discharges.* (See also Part 1.1.3 and Part 8.S.5.3) 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 NPDES permit(s). Note that a discharge resulting from snowmelt is not a dry weather discharge. (EPA includes these prohibited non-stormwater discharges here solely as a helpful reminder to the operator that the only non-stormwater discharges authorized by this permit are at Part 1.2.2.)

8.S.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.

8.S.3.1 *Permit Coverage/Submittal of NOIs.* Where an airport transportation facility has multiple industrial operators that discharge stormwater, each individual operator must obtain coverage under an NPDES stormwater permit. To obtain coverage under the MSGP, all such operators must meet the eligibility requirements in Part 1 and must submit an NOI, per Part 1.3.2. (or, if appropriate, a no exposure certification per Part 1.5).

8.S.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 in order 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.

*Tenants who report their deicing chemical usage to the airport authority and rely on the airport authority to perform monitoring should not check the glycol and urea use box on their NOI forms.

8.S.3.3 SWPPP Requirements. A single comprehensive SWPPP must be developed for all stormwater 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 operator develops a SWPPP for discharges from its own areas of the airport, that SWPPP must be coordinated and integrated with the comprehensive SWPPP. All operators and their separate SWPPP contributions and compliance responsibilities must be clearly identified in the comprehensive SWPPP, which all operators must sign and certify per Part 6.2.7. 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.

For each activity that an operator (e.g., the airport authority) conducts on behalf of another operator (e.g., a tenant), the SWPPP must describe a process for reporting results to the latter operator and for ensuring appropriate follow-up, if necessary, by all affected operators. This is to ensure all actions are taken to correct any potential deficiencies or permit violations. For example, where the airport authority is conducting monitoring for itself and its tenants, the SWPPP must identify how the airport authority will share the monitoring results with its tenants, and then follow-up with its tenants where there are any exceedances of benchmarks, effluent limits, or water quality standards. In turn, the SWPPP must describe how the tenants will also follow-up to ensure permit compliance.

8.S.3.4 Duty to Comply. All individual operators are responsible for implementing their assigned portion of the comprehensive SWPPP, and operators must ensure that their individual activities do not render another operator's stormwater controls ineffective. In addition, the standard permit conditions found in Appendix B apply to each individual operator, including B.1 Duty to Comply (which states, in part, "You [each individual operator] must comply with all conditions of this permit."). For multiple operators at an airport this means that each individual operator remains responsible for ensuring all requirements of its own MSGP coverage are met regardless of whether the comprehensive SWPPP allocates the actual implementation of any of those responsibilities to another entity. That is, the failure of the entity allocated responsibility in the SWPPP to implement an MSGP requirement on behalf of other operators does not negate the other operators' ultimate liability.

8.S.4 Additional Technology-Based Effluent Limits**8.S.4.1 *Good Housekeeping Measures.* (See also Part 2.1.2.2)**

- 8.S.4.1.1 *Aircraft, Ground Vehicle and Equipment Maintenance Areas.*** Minimize the contamination of stormwater from all areas used for aircraft, ground vehicle and equipment maintenance (including the maintenance conducted on the terminal apron and in dedicated hangars) through implementation of control measures such as the following, where determined to be feasible and that accommodate considerations of safety, space, operational constraints, and flight considerations (list not exclusive): performing maintenance activities indoors; maintaining an organized inventory of material used in the maintenance areas; draining all parts of fluids prior to disposal; prohibiting the practice of hosing down the apron or hanger floor; using dry cleanup methods; and collecting the stormwater from the maintenance area and providing treatment or recycling.
- 8.S.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 stormwater from cleaning areas.
- 8.S.4.1.3 *Aircraft, Ground Vehicle and Equipment Storage Areas.*** Store all aircraft, ground vehicles and equipment awaiting maintenance in designated areas only and implement control measures to minimize the discharge of pollutants in stormwater from these storage areas such as the following, where determined to be feasible and that accommodate considerations of safety, space, operational constraints, and flight considerations (list not exclusive): 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.
- 8.S.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 stormwater. Also plainly label the vessels (e.g., "used oil," "Contaminated Jet A"). To minimize contamination of precipitation/stormwater from these areas, implement control measures such as the following, where determined to be feasible and that accommodate considerations of safety, space, operational constraints, and flight considerations (list not exclusive): storing materials indoors; storing waste materials in a centralized location; and installing berms/dikes around storage areas.
- 8.S.4.1.5 *Airport Fuel System and Fueling Areas.*** Minimize the discharge of pollutants in stormwater from airport fuel system and fueling areas through implementation of control measures such as the following, where determined to be feasible and that accommodate considerations of safety, space, operational constraints, and flight considerations (list not exclusive): implementing spill and overflow practices (e.g., placing absorptive materials beneath aircraft during fueling operations); using only dry cleanup methods; and collecting stormwater. If you have implemented a SPCC plan developed in accordance with the 2006 amendments to the SPCC rule, you may cite the relevant aspects from your SPCC plan that comply with the requirements of this section in your SWPPP.

- 8.S.4.1.6 Source Reduction.** Consistent with safety considerations, minimize the use of urea and glycol-based deicing chemicals to reduce the aggregate amount of deicing chemicals used that could add pollutants to stormwater discharges.
- **Runway Deicing Operations.** To minimize the discharge of pollutants in stormwater from runway deicing operations, implement source reduction control measures such as the following, where determined to be feasible and that accommodate considerations of safety, space, operational constraints, and flight considerations (list not exclusive): 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; heating sand; and product substitution. Chemical options to replace pavement deicers (urea or glycol) include (list not exclusive): potassium acetate; magnesium acetate; calcium acetate; and anhydrous sodium acetate.
 - **Aircraft Deicing Operations.** Minimize the discharge of pollutants in stormwater from aircraft deicing operations. Determine whether excessive application of deicing chemicals occurs and adjust as necessary, consistent with considerations of flight safety. Determine whether alternatives to glycol and whether containment measures for applied chemicals are feasible. Implement control measures for reducing deicing fluid such as the following, where determined to be feasible and that accommodate considerations of safety, space, operational constraints, and flight considerations (list not exclusive): 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. Consider using ice- detection systems and airport traffic flow strategies and departure slot allocation systems where feasible and that accommodate considerations of safety, space, operational constraints, and flight considerations. The evaluations and determinations required by this Part should be carried out by the personnel most familiar with the particular aircraft and flight operations and related systems in question (versus an outside entity such as the airport authority).
- 8.S.4.1.7 Management of Stormwater.** (See also Part 2.1.2.6) Minimize the discharge of pollutants in stormwater from deicing chemicals in stormwater. To minimize discharges of pollutants in stormwater from aircraft deicing, implement stormwater control measures such as the following, where determined to be feasible and that accommodate considerations of safety, space, operational constraints, and flight considerations (list not exclusive): installing a centralized deicing pad to recover deicing fluid following application; plug- and-pump (PnP); using vacuum/collection trucks (glycol recovery vehicles); storing contaminated stormwater/deicing fluids in tanks; recycling collected deicing fluid where feasible; releasing controlled amounts to a publicly owned treatment works; separation of contaminated snow; conveying contaminated stormwater into an impoundment for biochemical decomposition (be aware of attracting wildlife that may prove hazardous to flight operations); and directing stormwater into vegetative swales or other

infiltration measures. To minimize discharges of pollutants in stormwater from runway deicing, implement stormwater control measures such as the following, where determined to be feasible and that accommodate considerations of safety, space, operational constraints, and flight considerations (list not exclusive): mechanical systems (snow plows, brushes); conveying contaminated stormwater into swales and/or an impoundment; and pollution prevention practices such as ice detection systems, and airfield prewetting.

When applying deicing fluids during non-precipitation events (also referred to as “clear ice deicing”), implement control measures to prevent unauthorized discharge of pollutants (dry-weather discharges of pollutants would need coverage under an NPDES wastewater permit), or to minimize the discharge of pollutants from deicing fluids in later stormwater discharges, implement control measures such as the following, where determined to be feasible and that accommodate considerations safety, space, operational constraints, and flight considerations (list not exclusive): recovering deicing fluids; preventing the fluids from entering storm sewers or other stormwater discharge conveyances (e.g., covering storm sewer inlets, using booms, installing absorptive interceptors in the drains); releasing controlled amounts to a publicly owned treatment works. Used deicing fluid should be recycled whenever practicable.

- 8.S.4.1.8 *Deicing Season.*** You must determine the seasonal timeframe (e.g., December- February, October - March) during which deicing activities typically occur at the facility. Implementation of control measures, including any BMPs, facility inspections and monitoring must be conducted with particular emphasis throughout the defined deicing season. If you meet the deicing chemical usage thresholds of 100,000 gallons glycol and/or 100 tons of urea, the deicing season you identified is the timeframe during which you must obtain the four required benchmark monitoring event results for deicing-related parameters, i.e., BOD, COD, ammonia and pH. See also Part 8.S.8.

8.S.5 Additional SWPPP Requirements

- 8.S.5.1 *Drainage Area Site Map.*** (See also Part 6.2.2) Document in the SWPPP the following areas of the facility and indicate whether activities occurring there may be exposed to precipitation/stormwater: aircraft and runway deicing operations; fueling stations; aircraft, ground vehicle and equipment maintenance/cleaning areas; and storage areas for aircraft, ground vehicles and equipment awaiting maintenance.
- 8.S.5.2 *Potential Pollutant Sources.*** (See also Part 6.2.3) In the inventory of exposed materials, describe in the SWPPP the potential for the following activities and facility areas to contribute pollutants to stormwater discharges: aircraft, runway, ground vehicle and equipment maintenance and cleaning; and aircraft and runway deicing operations (including apron and centralized aircraft deicing stations, runways, taxiways and ramps). If deicing chemicals are used, a record of the types (including the Safety Data Sheets [SDS]) used and the monthly quantities, either as measured or, in the absence of metering, using best estimates, must be maintained. 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. Deicing operators must provide the above information to the airport authority for inclusion with any comprehensive airport SWPPPs.

8.S.5.3 Vehicle and Equipment Wash Water Requirements. If wash water is handled in a manner that does not involve separate NPDES permitting or local pretreatment requirements (e.g., hauled offsite, retained onsite), describe the disposal method and include all pertinent information (e.g., frequency, volume, destination) in your SWPPP. Discharges of vehicle and equipment wash water are not authorized by this permit for this sector.

8.S.5.4 Documentation of Control Measures Used for Management of Stormwater. Document in your SWPPP the control measures used for collecting or containing contaminated melt water from collection areas used for disposal of contaminated snow.

8.S.6 Additional Inspection Requirements

At a minimum, you must conduct facility inspections at least monthly during the deicing season (e.g., October through April for most mid-latitude airports). If your 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 Director may specifically require you to increase inspection frequencies.

8.S.7 Indicator Monitoring (See also Part 4.2.1)

Table 8.S-1 identifies indicator monitoring that applies to the specific subsectors of Sector S. This indicator monitoring applies to both your primary industrial activity and any co-located industrial activities.

Table 8.S-1		
Subsector (You may be subject to requirements for more than one sector/subsector)	Indicator Monitoring Parameter	Indicator Monitoring Threshold
Applies to all Sector S (Subsector S1) facilities with stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit	Polycyclic Aromatic Hydrocarbons (PAHs)*	Report Only/ No thresholds or baseline values
Subsector S1. Air Transportation Facilities (SIC Code 4512-4581)	Polycyclic Aromatic Hydrocarbons (PAHs)*	Report Only/ No thresholds or baseline values

* Monitoring is required for the 16 individual PAHs identified at Appendix A to 40 CFR Part 423: naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, benzo[g,h,i]perylene, indeno[1,2,3-c,d]pyrene, and dibenz[a,h]anthracene.

8.S.8 Sector-Specific Benchmarks (See also Part 4.2.2)

Table 8.S-2 identifies benchmarks that apply to Sector S. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

Table 8.S-2.		
Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
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).	Biochemical Oxygen Demand (BOD ₅) ¹	30 mg/L
	Chemical Oxygen Demand (COD) ¹	120 mg/L
	Ammonia 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, during the timeframe defined in Part 8.S.4.1.8 when deicing activities are occurring.

8.S.9 Effluent Limitations Based on Effluent Limitations Guidelines and New Source Performance Standards (See also Part 4.2.3.1)

8.S.9.1 *Airfield Pavement Deicing.* For both existing and new “primary airports” (as defined at 40 CFR 449.2) with 1,000 or more annual non-propeller aircraft departures that discharge stormwater from airfield pavement deicing activities, there shall be no discharge of airfield pavement deicers containing urea. To comply with this limitation, such airports must do one of the following: (1) certify annually on the annual report that you do not use pavement deicers containing urea, or (2) meet the effluent limitation in Table 8.S-3.

8.S.9.2 *Aircraft Deicing.* Airports that are both “primary airports” (as defined at 40 CFR 449.2) and new sources (“new airports”) with 1,000 or more annual non-propeller aircraft departures must meet the applicable requirements for aircraft deicing at 40 CFR 449.11 (a). Discharges of the collected aircraft deicing fluid directly to waters of the U.S. are not eligible for coverage under this permit.

8.S.9.3 *Monitoring, Reporting and Recordkeeping.* For new and existing airports subject to the effluent limitations in Part 8.S.9.1 or 8.S.9.2 of this permit, you must comply with the applicable monitoring, reporting and recordkeeping requirements outlined in 40 CFR 449.20.

Table 8.S-3		
Industrial Activity	Parameter	Effluent Limitation
Runoff containing urea from airfield pavement deicing at existing and new primary airports with 1,000 or more annual non-propeller aircraft departures	Ammonia as Nitrogen	14.7 mg/L, daily maximum

9 Permit Conditions Applicable to Specific States, Indian Country Lands, or Territories

Section 401 of the CWA (see also 40 CFR §122.44(d)(3) and §124.53(a)) provides that no federal license or permit, including NPDES permits, to conduct any activity that may result in any discharge to waters of the United States shall be granted until the state/tribe in which the discharge originates certifies that the discharge will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of the CWA. The requirements under this Part of the permit provide state, U.S. territory, and tribal requirements that these entities certify are necessary in order for the permit to comply with applicable water quality requirements.

The conditions below have been incorporated into the 2021 MSGP based on the certifications granted for the 2021 MSGP. These conditions apply for activities conducted under this permit that occur within the jurisdiction that established the condition. Any references below to the “2020 MSGP,” “MSGP 2020,” “2020 proposed MSGP,” “proposed permit,” or similar refer to the final 2021 MSGP.

9.1 EPA Region 1: Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, Vermont**9.1.1 CTR05I000: Indian Country within the State of Connecticut**

No additional requirements.

9.1.2 MAR050000: Commonwealth of Massachusetts, except Indian country

Operators in the Commonwealth of Massachusetts must meet the following conditions (see certification provided by the Commonwealth of Massachusetts, CWA401Cert_MA_2021 MSGP):

9.1.2.1 *Additional conditions required by the Commonwealth of Massachusetts.*

Discharges covered by the general permit must comply with the provisions of 314 CMR 3.00, 314 CMR 4.00, 314 CMR 9.00, and 310 CMR 10.00. New facilities or redevelopment of existing facilities subject to this permit must comply with applicable stormwater performance standards prescribed by state regulation. A permit under 314 CMR 3.04 is not required for existing facilities that meet state stormwater performance standards. An application for a permit under 314 CMR 3.00 is required only when required under 314 CMR 3.04(2)(b) (designation of a discharge on a case-by-case basis) or is otherwise identified in 314 CMR 3.00 as a discharge requiring a permit application. See *id.* at 1-2.

9.1.2.2 *SWPPP Availability.*

MassDEP may request a copy of the Stormwater Pollution Prevention Plan (SWPPP) at any time, and the permittee is required to submit the SWPPP to MassDEP within 14 days of such a request. MassDEP may conduct an inspection of any facility covered by this permit to ensure compliance with state law requirements, including state water quality standards. MassDEP may enforce its certification conditions. See *id.*

9.1.2.3 *New Dischargers.*

For new dischargers applying to be covered under the MSGP and proposing to discharge to Outstanding Resource Waters as identified in 314 CMR 4.00, MassDEP will require applicants to submit a copy of the Stormwater Pollution Prevention Plan (SWPPP) for review. For purposes of this review the applicant is required to submit a copy of the EPA NOI and SWPPP to MassDEP at the same time they are submitted to EPA. Instructions on how to submit these documents to MassDEP can be found here: <https://www.mass.gov/how-to/wm-15-npdes-general-permit-notice-of-intent>. See *id.*

9.1.2.4 Submission of Monitoring Data.

The results of any monitoring required by this permit that identify violations of any effluent limits or benchmarks for any parameter for which monitoring is required shall be sent to the appropriate Regional Office of MassDEP (attention: Bureau of Air and Waste). In addition, any follow-up monitoring and a description of the corrective actions required and undertaken to meet the effluent limits or benchmarks shall be sent to the appropriate MassDEP Regional Office. See *id.*

9.1.2.5 Sector-Specific Requirements.

The Massachusetts Coastal Zone Management Program submitted the following conditions to be included in the WQC for the 2015 permit in order to meet the Program's Consistency Review, and to remain consistent, these same requirements are included in this WQC:

- a. In Sector Q [Water Transportation] add copper to the required monitoring parameters with a benchmark monitoring concentration as is included in the MSGP 2020 Table 1 of Appendix J.
- b. In Sector R [Ship and Boat Building and Repair Yards] add aluminum, lead, and copper to the list of required monitoring parameters with a benchmark monitoring concentration as included in the MSGP 2020 Table 1 of Appendix J.
- c. Modify the monitoring requirements for Sectors Q and R such that all four of the quarterly monitoring samples must meet the benchmarks rather than the average of the four before no further monitoring is required. See *id.* at 2.

9.1.3 MAR05I000: Indian country within the Commonwealth of Massachusetts

No additional requirements.

9.1.4 NHR050000: State of New Hampshire

Operators in New Hampshire must also meet the following conditions (see certification provided by the State of New Hampshire, CWA410Cert_NH_2021 MSGP):

9.1.4.1 Consider Opportunities for on-site infiltration of stormwater.

In Part 2.1.1 Control Measure Selection and Design Considerations, you are required to consider opportunities for infiltrating runoff onsite. This is encouraged, but it should only be done if consistent with the statutes and rules of the Department of Environmental Services written to protect groundwater. Infiltration best management practices are not recommended at industrial sites except in areas where industrial activities do not occur, such as at office buildings and their associated parking facilities, or in drainage areas at the facility where a certification of no exposure will always be possible [see 40CFR122.26(g)]. Other justifiable reasons for not using on-site infiltration BMP include the following:

- a. The facility is located in a wellhead protection area as defined in RSA 485-C:2; or
- b. The facility is located in an area where groundwater has been reclassified to GAA, GA1 or GA2 pursuant to RSA 485-C and Env-Dw 901; and
- c. Any areas that would be exempt from the groundwater recharge requirements contained in Env-Wq 402, Groundwater Discharge Permit and Registration Rules (formerly Env-Ws1500), including all land uses or activities considered to be a "High-load site." See *id.* at 1-5

9.1.4.2 Maintenance of Infiltration Best Management Practices.

In Part 2.1.2.3 you are required to maintain control measures. In Parts 6.2.2, 6.2.5.1 and 6.5 you are required to document the location of control measures, perform

inspections and maintenance, and keep records. Accordingly, the SWPPP must contain the following:

- a. A description of and the location of each on-site infiltration BMP installed;
- b. The maintenance procedures that will be followed to ensure proper operation, including the removal of sediment from pretreatment devices;
- c. The inspection procedures that will be followed at least annually. These should include the procedures for ensuring that the stormwater being infiltrated is not exposed to industrial pollutants and the procedures for ensuring proper drainage to prevent mosquito breeding;
- d. The employee name (or title of the position) who is a member of the stormwater pollution prevention team (see Part 6.2.1) who will be responsible for the maintenance required in Part 9.1.4.2.b, the inspection required in Part 9.1.4.c and any necessary corrective actions or additional implementation measures required in Part 5; and
- e. Records for all maintenance performed, inspections conducted, and corrective actions taken. See *id.*

9.1.4.3 Discontinue, Permit or Register On-site Infiltration BMP if Necessary.

If at any time a certification of no exposure can no longer be made for any of the stormwater to be infiltrated, then the infiltration BMP must cease for that portion of the runoff or the discharge must be permitted or registered as appropriate. The following may be required:

- a. Infiltration BMP that meet the definition of a Class V well or that infiltrates stormwater via a subsurface structure (i.e. concrete chambers, dry well, leach field, etcetera) will need an underground injection control (UIC) registration from NHDES; and
- b. Permitting as a groundwater discharge as required in Env-Wq 402, if the stormwater will or may contain regulated contaminants.

The SWPPP must be modified immediately if new infiltration BMP are proposed or if existing infiltration BMP will cease. See *id.*

9.1.4.4 Required NHDES notification.

- a. Notify the NHDES Groundwater Discharge Permit Coordinator immediately if you believe that any infiltration BMP may need to be permitted or registered (see Part 9.1.4.3) during the permit term.
- b. Notify the NHDES Wastewater Engineering Bureau immediately of any plans to discharge any new non-stormwater discharges during the permit term. This does not include the allowable non-stormwater discharges listed in Part 1.1.3
- c. Immediately notify the NHDES Drinking Water and Groundwater Bureau at (603) 271-2513 of reportable releases (e.g., spills) of extremely hazardous, hazardous substance or oil as defined in accordance with the Emergency Planning and Community Right-to-Know Act (EPCRA) that are discharged into a source of drinking water or within a source protection area. This is in addition to immediately contacting local and state emergency responders through calling 911 and (603) 271-3899 during business hours and the state police at 800 525-5555 after hours or on weekends. See *id.*

9.1.4.5 Information That May Be Requested by NHDES.

To ensure compliance with RSA 485-C, RSA 485-A, RSA 485-A:13, I(a), Env-Wq 400 and Env-Wq 401 the following information may be requested by NHDES. This information

must be kept on site unless you receive a written request from NHDES that it be sent to the address shown in Part 9.1.4.6.

- a. The site map required in Part 6.2.2, showing the type and location of all on-site infiltration BMP utilized at the facility or the reason(s) why none were installed.
- b. A list of all non-stormwater discharges that occur at the facility, including their source locations and the control measures being used (see Parts 1.2.2 and 6.2.3.4).
- c. A copy of the Annual Reports required in Part 7.4. See *id.*

9.1.4.6 Where to Submit Information.

Information submitted to NHDES must be sent to the following address:

NH Department of Environmental Services
Wastewater Engineering Bureau
Permits & Compliance Section
P.O. Box 95
Concord, NH 03302-0095

9.1.4.7 Modification of Clean Water Act Section 401 Water Quality Certification.

When NHDES determines that additional water quality certification requirements are necessary to the protect water quality, it may require individual dischargers to meet additional conditions to obtain or continue coverage under the MSGP. Any such conditions shall be supplied to the permittee in writing. Any required pollutant loading analyses and any designs for structural best management practices necessary to protect water quality must be prepared by a professional engineer (civil or sanitary) licensed in New Hampshire. See *id.*

9.1.5 RIR05I000: Indian country within the State of Rhode Island

No additional requirements.

9.1.6 VTR05F000: Areas in the State of Vermont subject to industrial activity by a Federal Operator

No additional requirements.

9.2 EPA Region 2: New Jersey, New York, Puerto Rico, Virgin Islands

9.2.1 PRR050000: Commonwealth of Puerto Rico

No additional requirements.

9.2.2 NYR051000: Indian country within the State of New York, except the lands of the St. Regis Mohawk Tribe

No additional requirements.

9.3 EPA Region 3: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia.

9.3.1 DCR050000: District of Columbia

Operators in the District of Columbia must also meet the following conditions (see certification provided by the District of Columbia, CWA410Cert_DC_2021 MSGP):

9.3.1.1 Compliance with District of Columbia Laws and Regulations.

Discharges covered by the MSGP must comply with the District of Columbia Water Pollution Control Act of 1984, as amended, D.C. Official Code § 8-103.01 et seq.; and its implementing regulations in Title 21 Chapters 11 and 19 of the District of Columbia Municipal Regulations. See *id.* at 1-3

9.3.1.2 No Preclusion of Responsibilities.

Nothing in this permit will be construed to preclude the permittee of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to District of Columbia laws and regulations. See *id.*

9.3.1.3 Additional Reporting.

The permittee shall report to the Associate Director, Inspection and Enforcement Division any noncompliance which may endanger health or the environment. All information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. See *id.*

9.3.2 DER05F000: Areas in the State of Delaware subject to industrial activity by a Federal Operator

No additional requirements.

9.4 EPA Region 4: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee

9.4.1 ALR05I000: Indian country within the State of Alabama

No additional requirements.

9.4.2 FLR05I000: Indian country within the State of Florida

9.4.2.1 Miccosukee Tribe of Indians

Industrial stormwater discharges on the Miccosukee Tribe lands are not eligible for permit coverage under this permit. Contact the EPA Region 4 office for additional information, including available permits.

9.4.2.2 Seminole Tribe of Florida

Industrial stormwater discharges on the Seminole Tribe lands are not eligible for permit coverage under this permit. Contact the EPA Region 4 office for additional information, including available permits.

9.4.3 MSR05I000: Indian country within the State of Mississippi

No additional requirements.

9.4.4 NCR05I000: Indian country within the State of North Carolina

No additional requirements.

9.4.5 SCR05I000: Indian country within the State of South Carolina

No additional requirements.

9.5 EPA Region 5: Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin.

9.5.1 MIR05I000: Indian country within the State of Michigan

No additional requirements.

9.5.2 MNR05I000: Indian country within the State of Minnesota

9.5.2.1 Fond du Lac Reservation

Operators in the Fond du Lac Reservation must also meet the following conditions (see certification provided by the Fond du Lac Reservation, CWA410Cert_Fond du Lac_2021 MSGP):

9.5.2.1.1 Submission of SWPPP.

A copy of the Storm Water Pollution Prevention Plan (SWPPP) must be submitted to the Office of Water Protection at least fifteen (15) days in advance of sending the

Notice of Intent to EPA. The SWPPP can be submitted electronically to richardgitar@FDLREZ.com or by hardcopy sent to:

Fond du Lac Reservation
Office of Water Protection
1720 Big Lake Road
Cloquet, MN 55720

MSGP applicants are encouraged to work with the FDL Office of Water Protection in the identification of all proposed receiving waters and selection of appropriate Best Management Practices (BMPs). See *id.* at 2-4.

9.5.2.1.2 Submission of NOI and NOT.

Copies of the Notice of Intent (NOI) and the Notice of Termination (NOT) must be sent to the Fond du Lac Office of Water Protection at the same time they are submitted to EPA. See *id.*

9.5.2.1.3 Benchmark Monitoring for Turbidity.

The Benchmark Monitoring Concentration (BMC) for Turbidity shall NOT exceed 10% of natural background as determined by the Office of Water Protection staff as measured in NTU. See *id.*

9.5.2.1.4 Effluent Limitations.

The Effluent Limitations for ALL sectors shall NOT exceed more than two times (2x) Fond du Lac's ambient concentrations (based upon more than 20 years of monitoring data) for the following (See *id.*):

a) Ammonia	Ambient =<0.3mg/l
b) Arsenic	Ambien =< 3.0 µg/l
c) Chromium	Ambient =< 0.8 µg/l
d) Total Phosphorus	Ambient =< 0.09 mg/l
e) Total Suspended Solids	Ambient =< 16 mg/l
f) Zinc	Ambient =< 24 mg/l

9.5.2.1.5 Water Quality Criteria.

All industrial activities shall be carried out in such a manner as will prevent violations of water quality criteria as stated in the Water Quality Standards of the Fond du Lac Reservation, Ordinance 12/98, as amended. This includes, but is not limited to, the prevention of any discharge that causes a condition in which visible solids, bottom deposits, or turbidity impairs the usefulness of water of the Fond du Lac Reservation for any of the uses designated in the Water Quality Standards of the Fond du Lac Reservation. These uses include wildlife, aquatic life, warm water fisheries, cold water fisheries, subsistence fishing (netting), primary contact recreation, secondary contact recreation, cultural, wild rice areas, aesthetic waters, agriculture, navigation, and commercial. See *id.*

9.5.2.1.6 Impacts to cultural sites.

This certification does not authorize impacts to cultural, historical, or archeological features or sites, or properties that may be eligible for such listing. See *id.*

9.5.2.2 Grand Portage Band of the Minnesota Chippewa Tribe

The following conditions apply to industrial storm water discharges into Waters of the Grand Portage Reservation (see certification provided by the Grand Portage Reservation, CWA410Cert_Fond du Lac_2021 MSGP):

9.5.2.2.1 *Definitions.*

The definitions set forth in the Grand Portage Water Resources Ordinance, as amended, (“Water Resources Ordinance”) govern these certification conditions. See *id.* at 1,4.

9.5.2.2.2 *Water Quality Standards.*

All industrial storm water discharges authorized by this permit must comply with the Grand Portage Water Quality Standards, Applicable Federal Standards, and the Water Resources Ordinance. See *id.*

9.5.2.2.3 *Additional Monitoring.*

Grand Portage reserves the right to require additional monitoring of storm water discharges as determined on a case-by-case basis. If the Board determines that additional monitoring is necessary, the monitoring plan must be supplemented and incorporated into the Storm Water Pollution Prevention Plan (“SWPPP”) before the SWPPP is submitted to the USEPA. Accordingly, the Board must be contacted, at the address listed below, at the onset of writing the SWPPP. See *id.* at 1,4.

9.5.2.2.4 *Submission of SWPPP, NOI, and NOT.*

In addition, a copy of the SWPPP, Notice of Intent (“NOI”), and Notice of Termination (NOT) (collectively the “application”) must be submitted to the Board at least 30 days before submitting the NOI to USEPA. Applications should be sent to the following address:

Grand Portage Environmental Resources Board
P.O. Box 428
Grand Portage, MN 55605

9.5.2.2.5 *Additional information.*

Upon receipt of the application, the Board shall order the Grand Portage Environmental Department (Department) to conduct a technical review of the application materials. If necessary, Department staff will send a request for additional information to the applicant within 30 days of receipt of the application. See *id.* at 1,5.

9.5.2.2.6 *Preliminary coverage determination.*

After considering the application and such other information and data as the Department staff deems relevant, the Department Director will evaluate whether there is a reasonable probability that the proposed activity will violate the Grand Portage Water Quality Standards or any Applicable Federal Standards and recommend one of the following preliminary determinations:

- (a) Unconditionally grant coverage under the MSGP;
- (b) Grant coverage under the MSGP subject to certain conditions; or
- (c) Deny coverage under the MSGP.

9.5.2.2.7 *Final coverage determination.*

Within 30 days of the Department Director’s recommendation, the Board will provide public notice of the application for coverage under the MSGP and the Department Director’s recommendations. Upon request, the Department will

schedule a hearing as provided in 40 CFR Part 25. If, after considering the evidence provided at the hearing and the entire record, the Board determines by a preponderance of the evidence that the proposed activity will violate the Grand Portage Water Quality Standards or any Applicable Federal Standards, the Board shall deny eligibility for coverage under the MSGP, unless there is a reasonable certainty that compliance can be achieved by the applicant's adherence to reasonable conditions. If the Board finds insufficient evidence to show that the proposed activity will violate the Grand Portage Water Quality Standards or any Applicable Federal Standards, it shall approve coverage under the MSGP. See *id.*

9.5.2.2.8 Appeals.

Appeals related to water quality certification decisions or permits will be heard by the Grand Portage Tribal Court. See *id.*

9.5.2.2.9 Prohibition of Discharge.

The applicant is prohibited from discharging into the Waters of the Reservation pursuant to the MSGP unless the Board has granted coverage under the MSGP, or until the applicant has adhered to conditions required by the Board's conditional grant of coverage. See *id.*

9.5.2.2.10 Compliance.

The Board retains full authority provided by the Water Resources Ordinance to ensure compliance with and enforce the provisions of the Water Resource Ordinance, the Grand Portage Water Quality Standards, Applicable Federal Standards, and these certification conditions." See *id.*

9.5.3 WIR05I000: Indian country within the State of Wisconsin, except those on Bad River Band of Lake Superior Tribe of Chippewa Indians lands and on Sokaogon Chippewa Community lands

No additional requirements.

9.6 EPA Region 6: Arkansas, Louisiana, Oklahoma, Texas, and New Mexico (except see Region 9 for Navajo lands, and see Region 8 for Ute Mountain Reservation lands).

9.6.1 LAR05I000: Indian country within the State of Louisiana

No additional requirements.

9.6.2 NMR050000: The State of New Mexico, except Indian country

Operators in New Mexico must also meet the following conditions (see certification provided by the State of New Mexico, CWA410Cert_NM_2021 MSGP):

9.6.2.1 PFAS Analytes Monitoring.

Except as specified below, all NAICS codes listed in the December 4, 2019 Advanced Notice of Proposed Rulemaking for TRI Reporting¹ and covered under this MSGP shall monitor and report PFAS in effluent once during the first year of MSGP coverage, or when the facility discharges if no discharge occurs during the first year. Samples shall be analyzed by an accredited lab for all 18 PFAS analytes using EPA Method 537.1 (EPA 2018), and the DoD Quality Systems Manual Method 5.3 (2019) as guidance. Method and analysis shall be sufficiently sensitive to evaluate the New Mexico screening level for PFOA and PFOS.

The PFAS screening level in New Mexico is indicated below. The screening level is not a standard of quality and purity for the surface waters of New Mexico but

¹ <https://www.federalregister.gov/documents/2019/12/04/2019-26034/addition-of-certain-per-and-polyfluoroalkyl-substances-community-right-to-know-toxic-chemical>

allows detection and further evaluation of the existence of PFAS in stormwater discharges to determine if more attention is warranted.

PFAS Screening Level for New Mexico*	
PFOA + PFOS	0.070 µg/L

*Concentrations of PFOA and PFOS are summed before being compared to the screening level.

If PFOA and/or PFOS are detected above the New Mexico screening level, additional monitoring and reporting shall occur annually and in accordance with the same parameters and methods as required for the first sampling event. In addition, the permittee should take corrective action and identify ways to minimize, reduce, and eliminate PFAS from the industrial activity through product substitution and/or additional best management practices and operational controls. Results of past monitoring and any corrective actions taken should be included in the Stormwater Pollution Prevention Plan (SWPPP).

The permittee shall submit monitoring results for all 18 PFAS analytes under EPA Method 537.1, as required, to NMED at the following address:

Point Source Program Manager
Surface Water Quality Bureau
New Mexico Environment Department
P.O. Box 5469
Santa Fe, NM 87502-5469

NMED may suspend the requirement to monitor and report PFAS under the following circumstances:

- If the permittee determines it is not technically practicable to measure PFAS in their stormwater discharge; or
- If additional sampling determines that it is unlikely that PFAS exist in a permittee's stormwater discharge, if the permittee provides facility data that demonstrate PFAS are unlikely to be present in the stormwater discharge, or there are no available, accredited laboratories capable of performing the required PFAS analysis; or
- If additional sampling demonstrates that the pollutant concentration is lower than the screening level or the permittee is subject to duplicative or more stringent PFAS requirements.

However, to be exempted for these reasons, the permittee must submit documentation to NMED for approval. See *id.* At 4-6.

9.6.2.2 Benchmark Monitoring Concentrations

The benchmark values for pollutants must be modified to reflect New Mexico WQS for the facilities in New Mexico based on water quality criteria approved in the Standards for Interstate and Intrastate Surface Waters, 20.6.4.900 NMAC. Consistent with the language in this permit, exceedances of a benchmark value, even if that value is based on New Mexico WQS, are not immediately a violation of the permit unless the permittee does not take appropriate action to improve best management practices or otherwise mitigate the discharge of the detected pollutant. A full Tier 2 Antidegradation Review (significant degradation analysis; reasonable alternatives identification; economic and social importance; etc.) does not translate to projects covered under this general permit. Therefore, this condition is necessary to ensure that New Mexico's antidegradation policy is upheld and surface waters of the state are protected from degradation. See *id.*

The following tables lay out the benchmark values that should be used for sector-specific monitoring in the MSGP.

MSGP Benchmark Values and Sources		
Most restrictive value (highlighted below) must be chosen		
Pollutant	2020 proposed MSGP Benchmark	New Mexico MSGP Benchmark
Total Recoverable Beryllium	130 µg/L	
Biochemical Oxygen Demand (5-day)	30 mg/L	
pH	6.0 – 9.0 s.u.	6.6 – 9.0 s.u.
Chemical Oxygen Demand	120 mg/L	
Total Phosphorus	2.0 mg/L	
Total Suspended Solids (TSS)	100 mg/L	
Ammonia	2.14 mg/L	
Nitrate and Nitrite Nitrogen	0.68 mg/L	
Turbidity	50 NTU	
Total Recoverable Antimony	640 µg/L	640 µg/L (dissolved)
Total Recoverable Arsenic	150 µg/L	9 µg/L (dissolved)
Total Recoverable Cadmium	1.8 µg/L	See below
Chromium (III)	570 µg/L	See below
Chromium (VI)	16 µg/L	16 µg/L (dissolved)
Total Recoverable Copper	14 µg/L	See below
Total Recoverable Cyanide	22 µg/L	5.2 µg/L
Total Recoverable Lead	8.2 µg/L	14 µg/L (dissolved)
Total Recoverable Mercury	1.4 µg/L	0.77 µg/L
Total Recoverable Nickel	47 µg/L	See below
Total Recoverable Selenium	5 µg/L	5 µg/L
Total Recoverable Silver	3.8 µg/L	See below
Total Recoverable Zinc	120 µg/L	See below

	Hardness dependent criteria - Dissolved (µg/L)						
Concurrent Hardness as CaCO ₃ , dissolved (mg/L)	Cd	Cr III	Cu	Pb	Ni	Ag	Zn
25	0.51	180	4	14	140	0.3	45
30	0.59	210	4	17	170	0.4	54
40	0.76	270	6	24	220	0.7	70

50	0.91	320	7	30	260	1.0	85
60	1.07	370	8	37	300	1.3	101
70	1.22	430	10	44	350	1.7	116
80	1.37	470	11	51	390	2.2	131
90	1.51	520	12	58	430	2.7	145
100	1.65	570	13	65	470	3.2	160
200	2.98	1,010	26	140	840	11	301
220	3.23	1,087	28	151	912	13	328
300	4.21	1,400	38	210	1190	21	435
400 and above	5.38	1,770	50	280	1510	35	564

9.6.2.3 Outstanding National Resource Waters.

Operators are not eligible to obtain authorization under this permit for stormwater discharges to outstanding national resource waters (ONRWs, also referred to as "Tier 3" waters). Although State WQS provide for temporary and short-term degradation of water quality in an ONRW under very limited circumstances, if approved by the New Mexico Water Quality Control Commission as specified at 20.6.4.8.A NMAC, the approval process required for these activities does not translate to projects covered under this general permit. This condition is necessary to ensure that no degradation is allowed in ONRWs by requiring proposed stormwater discharges to be reviewed under the individual permit process. Tier 3 waters are defined in Appendix F of the proposed permit. See *id.*

9.6.2.4 Additional SWPPP Requirements.

Information on how the permittee knows the groundwater or spring water is uncontaminated must be documented in the facility SWPPP.

EPA must amend the NOI to include a question for the permittee to indicate whether they anticipate to discharge groundwater or spring water from their site. The permittee must be able to indicate on the NOI: flow rate, whether the ground or spring water source is nearby potential pollutant sources, and if the ground or spring water has been tested and is not contaminated by the potential pollutant source.

If discharge of groundwater or spring water is anticipated at a facility, permittees must complete the following steps to determine if it is potentially contaminated:

- Indicate on the NOI that dewatering activities are anticipated. Provide information on flow and potential to encounter impacted ground or spring water.
- Refer to the Mapper tool at <https://gis.web.env.nm.gov/oem> and check if the following groundwater pollutant sources are located nearby the anticipated source of groundwater or spring water such that there is a potential for contamination:

Project Location Relative to a Source of Potential Groundwater Contamination	Constituents likely to be required for testing
Within 0.5 mile of an open Leaking Tank site	BTEX (Benzene, Toluene, Ethylbenzene, and Xylene) plus additional parameters depending on site conditions.

Within 0.5 mile of an open Voluntary Remediation site	All parameters listed in 20.6.4.900 NMAC, hardness and pH (or an alternate list approved by the NMED SWQB)
Within 0.5 mile of an open RCRA Corrective Action Site	All parameters listed in 20.6.4.900 NMAC, hardness and pH (or an alternate list approved by the NMED SWQB)
Within 0.5 mile of an open Abatement Site	All parameters listed in 20.6.4.900 NMAC, hardness and pH (or an alternate list approved by the NMED SWQB)
Within 0.5 mile of an open Brownfield Site	All parameters listed in 20.6.4.900 NMAC, hardness and pH (or an alternate list approved by the NMED SWQB)
Within 1.0 mile of a Superfund site with associated groundwater contamination.	All parameters listed in 20.6.4.900 NMAC, hardness and pH (or an alternate list approved by the NMED SWQB)
EPA approved-sufficiently sensitive methods must be used – approved methods are listed in 40 C.F.R. 136.3.	

- c. If within the distances listed above, Permittee must provide test data indicating the quality of the groundwater or spring water to be discharged according to the table above.
- d. Permittee must send test result data to EPA Region 6 and the NMED Surface Water Quality Bureau. If the test data exceed State WQS, the ground or spring water cannot be discharged from the facility into surface waters under this permit. Discharge to surface waters must be conducted under a separate NPDES individual permit to ensure proper treatment and disposal. If disposal will be to the ground surface or in an unlined pond, the permittee must submit a Notice of Intent to Discharge (NOI) to the NMED Ground Water Quality Bureau. For further assistance determining whether your facility may encounter impacted groundwater, the permittee may contact the NMED Ground Water Quality Bureau at (505) 827-2965.
- e. Investigative information and data demonstrating that water is not contaminated must be documented in the facility SWPPP. See *id.*

9.6.2.5 Ponds and Other Impoundments.

Per the New Mexico Office of the State Engineer requirements², impoundments must drain or infiltrate within 96 hours. The facility must transfer a valid water right to impound and retain the stormwater longer than 96 hours or request a variance from the State Engineer.

If the facility intends to discharge stormwater that contains a "water contaminant" as defined in 20.6.2.7 NMAC, a State of New Mexico Notice of Intent to Discharge must

² 19.26.2.15.B NMAC PONDS AND OTHER IMPOUNDMENTS: A permit is required to capture or store surface water in an impoundment. An application to capture and store surface water shall be filed pursuant to 19.26.2.10 NMAC or 19.26.2.11 NMAC unless the impoundment of water is authorized as a livestock watering impoundment under 19.26.2.14 NMAC.

B. Flood control: No permit to appropriate water is required for an impoundment when the primary purpose of the impoundment is flood control, provided the outlet drains the impoundment (from the spillway crest) in 96 hours. The water shall not be detained in the impoundment in excess of 96 hours unless the state engineer has issued a waiver to the owner of the impoundment.

be submitted to NMED in accordance with 20.6.2.1201 NMAC **prior to discharge**. This includes infiltration of stormwater or a discharge to the ground surface that may move directly or indirectly into groundwater.

In the event impounded stormwater contains a "water contaminant" as defined in 20.6.2.7 NMAC, the stormwater must meet benchmark values in order to be discharged to a surface water of the State. See *id.*

9.6.3 NMR05I000: Indian country within the State of New Mexico, except Ute Mountain Reservation lands that are covered under Colorado permit COR05I000 and Navajo Reservation lands that are covered under Arizona permit AZR05I000

9.6.3.1 Ohkay Owingeh

Permittees in the tribe of Ohkay Owingeh must also meet the following conditions (see certification provided by the Tribe of Ohkay Owingeh, CWA410Cert_Ohkay Owingeh_2021 MSGP):

9.6.3.1.1 *Submission of NOI and NOT.*

The operator(s) must provide a copy of the Notice of Intent (NOI) to the Ohkay Owingeh Office of Environmental Affairs the same day electronic confirmation is received from the U.S. Environmental Protection Agency (EPA) that the submitted NOI was certified and is undergoing its 30-day review period . Additionally, a copy of the Notice of Termination (NOT) must be provided the same day electronic confirmation is received from the EPA that the NOT has been accepted. The NOI and NOT should be provided to the address below. See *id.* at 1-2.

9.6.3.1.2 *Where to Submit Information.*

Ron Lovato, Governor
P.O. Box 1099
Ohkay Owingeh, NM 87566
governor@ohkay.org

Naomi L. Archuleta
Environmental Programs Manager
Office of Environmental Affairs, NRD Division
P.O. Box 717
Ohkay Owingeh, NM 87566
naomi.archuleta@ohkay.org

9.6.3.1.3 *SWPPP Availability.*

The operator(s) must provide an electronic copy of the Storm Water Pollution Prevention Plan(s) to the Office of Environmental Affairs by email to naomi.archuleta@ohkay.org at least 30 days prior to submitting the NOI to EPA and Ohkay Owingeh. See *id.*

9.6.3.2 Pueblo of Isleta

Permittees in the Pueblo of Isleta must also meet the following conditions (see certification provided by the Pueblo of Isleta, CWA410Cert_Pueblo of Isleta_2021 MSGP):

9.6.3.2.1 *Water Quality Standards.*

Impacts to waters of the Pueblo of Isleta are prohibited. All lakes, rivers, streams, ditches, springs and wetlands shall be fully protected. See *id.* at 1-2.

9.6.3.2.2 *Submission of NOI.*

All discharges made pursuant to the MSGP shall be conducted in conformance with the requirements of Permit No. NMR05000, and in such a manner as will prevent violations of the Pueblo's Surface Water Quality Standards. See *id.*

9.6.3.2.3 Submission of NOI.

The operator(s) must provide a copy of the Notice of Intent ("NOI") to the Governor and Water Quality Control Officer the same day electronic confirmation is received by the EPA that the submitted NOI was certified and is undergoing its 30-day review period. See *id.* Additionally, a copy of the Notice of Termination ("NOT") must be provided the same day electronic confirmation is received from the EPA that the NOT has been accepted. A paper copy of the NOI and NOT should be provided to the Governor; electronic copy or URL is acceptable for submittal to the Pueblo of Isleta Water Quality Control Officer:

Governor Pueblo of Isleta
PO Box 1270
Isleta NM 87022

Water Quality Control Officer Pueblo of Isleta
Environment Department PO Box 1270
Isleta NM 87022
Ramona.Montoya @isletapueblo.com

9.6.3.2.4 SWPPP Availability.

The operator(s) must provide an electronic copy of its Storm Water Pollution Prevention Plan(s) ("SWPPP") to the Pueblo of Isleta Environment Department by email to Ramona.Montoya@isletapueblo.com at least 30 days prior to submitting the NOI to EPA and the Pueblo. The Pueblo may use the EPA 30-day waiting period to determine whether any additional measures are necessary to meet applicable Tribal surface water quality standards or to comply with Tribal antidegradation requirements. See *id.*

9.6.3.3 Pueblo of Laguna

The following condition applies only to discharges on the Santa Ana Indian Pueblo (see certification provided by the Pueblo of Isleta, CWA410Cert_Pueblo of Laguna_2021 MSGP):

9.6.3.3.1 Submission of NOI.

The operator(s) must provide a copy of the Notice of Intent (NOI) to the Pueblo of Laguna's Environmental & Natural Resources Department the same day electronic confirmation is received from the U.S. Environmental Protection Agency (EPA) that the submitted NOI was certified and is undergoing its 30-day review period. Additionally, a copy of the Notice of Termination (NOT) must be provided the same day electronic confirmation is received from the EPA that the NOT has been accepted. See *id.* 1-2.

The NOI and NOT should be provided to the following address:

Pueblo of Laguna, Office of the Governor
Attn: Environmental & Natural Resources Department
P.O. Box 194 Laguna, NM 87026
Email: setter@pol-nsn.gov, cc: gjojola@pol-nsn.gov, ewoodward@pol-nsn.gov

9.6.3.3.2 SWPPP Availability.

The operator(s) must provide an electronic copy of the Storm Water Pollution Prevention Plan(s) to Pueblo of Laguna Environmental Program at the same time the NOI is submitted to the listed email addresses above. See *id.*

9.6.3.3.3 Additional Correspondence.

The Pueblo of Laguna Environmental Program shall be included on any correspondences between the applicant and the EPA related to analytical data, written reports, corrective action, enforcement, monitoring, or incident reports. See *id.*

9.6.3.3.4 Additional Consultation.

Immediate initiation of consultation with the Pueblo of Laguna is required should any human remains or artifacts be unearthed that fall under the Native American Graves Protection and Repatriation Act guidelines during the span of the project. If human remains are unearthed, contact the Pueblo of Laguna Police Department at 505-552-6666. If artifacts are unearthed, contact the Pueblo of Laguna Tribal Historic Preservation Office at 505-552-5033. See *id.*

9.6.3.4 Pueblo of Santa Ana

The following condition applies only to discharges on the Santa Ana Indian Pueblo (see certification provided by the Pueblo of Isleta, CWA410Cert_Pueblo of Santa Ana_2021 MSGP):

9.6.3.4.1 Submission of NOI.

The permittee shall provide a copy of the Notice of Intent (NOI) to the Pueblo of Santa Ana (the Pueblo), at the same time it is submitted to the U.S. Environmental Protection Agency (EPA), for projects with discharges onto the lands of the Pueblo as defined in the Pueblo's antidegradation policy within the Pueblo of Santa Ana Water Quality Standards. See *id.* at 2-3.

9.6.3.4.2 SWPPP Availability.

The permittee shall provide a final copy of the Stormwater Pollution Prevention Plan (SWPPP) to the Pueblo that is associated with any project identified in the NOI, at the same time that an NOI is submitted to the EPA. The SWPP should include any projects with discharges onto the lands of the Pueblo as defined in the antidegradation policy within the Pueblo of Santa Ana Water Quality Standards. See *id.*

9.6.3.4.3 Additional Reporting.

The permittee shall provide copies of inspections reports and of corrective action reports to the Pueblo at the address below for review, upon request. See *id.*

9.6.3.4.4 Submission of NOT.

Upon completion of the project identified in the NOI, the permittee will submit a Notice of Termination (NOT) to the Pueblo. See *id.*

9.6.3.4.5 Where to Submit Information.

All required or requested permittee specific information identified above shall be submitted to the following address:

Pueblo of Santa Ana Department of Natural
Resources, Attention: Water Resources Division
2 Dove Road
Santa Ana Pueblo, NM, 87004

9.6.3.4.6 Additional Reporting to the Pueblo.

Discharges are not authorized by the permittee unless an accurate and complete NOI and SWPPP have been submitted to the Pueblo. Failure to

provide an accurate and complete NOI and SWPPP may result in a denial of the discharge permit, or a delay in groundbreaking or construction. See *id.*

9.6.3.4.7 Start Work Authorization.

The permittee will not proceed with site work until authorized by the Pueblo. The Pueblo requires review of the complete and final SWPP before authorization to proceed. The Pueblo will provide an "Authorization to Process" notice after review and approval of the SWPPP. See *id.*

9.6.3.4.8 Additional Monitoring.

The permittee could be required to perform water quality monitoring, sampling or analysis during the active permit dates for constituents determined by the Pueblo. See *id.*

9.6.3.4.9 Site Stabilization.

Before submitting a NOT, permittees must certify to the Pueblo's Department of Natural Resources in writing that requirements for site stabilization have been met, and any temporary erosion control structures have been removed. Documentation of the Pueblo's review that such requirements have been reviewed and met will be provided for the permittee to add to the permittee's NOT submission to EPA. Copies of all NOT submitted to the EPA must also be sent to the Pueblo at the address provided above. See *id.*

9.6.3.4.10 Additional Correspondence.

Copies of all Notifications (Notice of Intent, Notice of Termination, or other communications), associated analytical data, and written reports for actions covered under this permit occurring on Pueblo of Santa Ana lands or within five river miles of the northern exterior boundary of Pueblo of Santa Ana lands shall be provided to the Pueblo of Santa Ana Department of Natural Resources at same time they are provided to the U.S. Environmental Protection Agency.

Any correspondence between the applicant and EPA related to corrective action, enforcement, monitoring, or adverse incident written reports should likewise be routed to the Pueblo of Santa Ana Department of Natural Resources. The Pueblo of Santa Ana reserves the right to request additional information or study and may delay or deny a permit for cause. All requested materials shall be sent to: Pueblo of Santa Ana Department of Natural Resources, 2 Dove Road, Santa Ana Pueblo, NM, 87004. See *id.*

9.6.3.5 Pueblo of Santa Clara.

The following condition applies only to discharges on the Santa Clara Indian Pueblo (see certification provided by the Pueblo of Isleta, CWA410Cert_Pueblo of Santa Clara_2021 MSGP):

9.6.3.5.1 Submission of NOI, NOT and SWPPP.

The operator(s) provide an electronic copy of Notice of Intent (NOI) to the Santa Clara Pueblo Office of Environmental Affairs within 7 business days after electronic confirmation is received from the U.S. Environmental Protection Agency (EPA) that the submitted NOI was certified and is undergoing its 30-day review period. An electronic copy of the Notice of Termination (NOT) shall be provided to the Santa Clara Pueblo Office of Environmental Affairs within 5 calendar days after electronic confirmation is received from the EPA that the NOT has been accepted. A copy of the Storm Water Pollution Prevention Plan

shall be made available to the Pueblo of Santa Clara staff upon request. See *id.* 1-4.

9.6.3.5.2 Where to Submit Information.

Electronic copies of all required or requested documents shall be emailed to the Santa Clara Pueblo Office of Environmental Affairs at dinoc@santaclarapueblo.org. If an electronic copy can't be provided, a hard copy may be mailed to:

Santa Clara Pueblo Governor's Office
P.O. Box 580
Espanola, NM 87532

9.6.4 OKR05I000: Indian country within the State of Oklahoma

9.6.4.1 Pawnee Nation

The following condition applies only to discharges in Pawnee Nation (see certification provided by the Pueblo of Isleta, CWA410Cert_Pawnee Nation of Oklahoma_2021 MSGP):

9.6.4.1.1 Submission of NOI and NOT.

The operator(s) must provide a copy of the Notice of Intent (NOI) to the Pawnee Nation the same day electronic confirmation is received from the U.S. Environmental Protection Agency (EPA) that the submitted NOI was certified and is undergoing its 30-day review period. Additionally, a copy of the Notice of Termination (NOT) must be provided the same day electronic confirmation is received from the EPA that the NOT has been accepted. Electronic copies of the NOI and NOT shall be submitted to the Pawnee Nation Department of Environmental Conservation and Safety by email to: dnrs@pawneenation.org. See *id.*

9.6.4.1.2 SWPPP Availability.

The operator(s) must provide an electronic copy of the Storm Water Pollution Prevention Plan(s) to the Pawnee Nation by email to Pawnee Nation Department of Environmental Conservation and Safety, dnrs@pawneenation.org at least 30 days prior to submitting the NOI to EPA and the Pawnee Nation. See *id.*

9.6.4.1.3 Additional Reporting.

The Pawnee Nation must be notified at 918.762.3655 immediately upon discovery of any non-compliance with any provision of the permit conditions. See *id.*

9.6.5 OKR05F000: Facilities in the State of Oklahoma not under the jurisdiction of the Oklahoma Department of Environmental Quality or the Oklahoma Department of Agriculture, Food and Forestry, except those on Indian Country. EPA jurisdiction facilities include SIC Codes 1311, 1381, 1382, 1389, and 5171

No additional requirements.

9.6.6 TXR05F000: Facilities in the State of Texas not under the jurisdiction of the Texas Commission on Environmental Quality, except those on Indian Country. EPA- jurisdiction facilities include SIC Codes 1311, 1321, 1381, 1382, and 1389 (other than oil field service company "home base" facilities)

No additional requirements.

9.6.7 TXR05I000: Indian country within the State of Texas

No additional requirements.

9.7 EPA Region 7: Iowa, Kansas, Missouri, Nebraska (except see Region 8 for Pine Ridge Reservation Lands)

9.7.1 IAR05I000: Indian country within the State of Iowa

9.7.1.1 Meskwaki Nation

The following condition applies only to discharges on the Meskwaki Nation (see certification provided by the Pueblo of Isleta, CWA410Cert_Meskwaki Nation_2021 MSGP):

9.7.1.1.1 *Document Submission.*

All original and revised documents required by this permit, including SWPPP, NOI, Change NOI, and NOT, must be submitted electronically to MNRD 30 calendar days prior to the submission deadline to EPA. Incidental reporting, such as AIM documentation and plans, must be submitted to the MNRD at the same time that they are submitted to EPA. See *id.* at 1-3.

9.7.1.1.2 *Monitoring Data Submission.*

All discharge monitoring data required by this permit should be submitted electronically to the Meskwaki Natural Resources Department (MNRD) at the time of submission to EPA in the same form as it is submitted to EPA. See *id.*

9.7.1.1.3 *Where to Submit Information.*

Contact the MNRD office by phone at 641-484-3511 to gather submission details. See *id.*

9.7.2 KSR05I000: Indian country within the State of Kansas

No additional requirements.

9.7.3 NER05I000: Indian country within the State of Nebraska, except Pine Ridge Reservation lands (see Region 8)

No additional requirements.

9.8 EPA Region 8: Colorado, Montana, North Dakota, South Dakota, Wyoming, Utah (except see Region 9 for Goshute Reservation and Navajo Reservation Lands), the Ute Mountain Reservation in NM, and the Pine Ridge Reservation in NE

9.8.1 COR05F000: Areas in the State of Colorado, except those located on Indian country, subject to industrial activity by a Federal Operator

No additional requirements.

9.8.2 COR05I000: Indian country within the State of Colorado, as well as the portion of the Ute Mountain Reservation located in New Mexico

9.8.2.1 Southern Ute Indian Tribe

The following condition applies only to discharges within the Southern Ute Indian Reservation (see certification provided by the Southern Ute Indian Tribe, CWA410Cert_Southern Ute Indian Tribe_2021 MSGP):

9.8.2.1.1 *Submission of SWPPP.*

The applicant must submit its Stormwater Pollution Prevention Plan (SWPPP) to the Tribe's Environmental Programs Division at the same time or

immediately after the applicant submits its Notice of Intent (NOI) to EPA. At the applicant's option, the submittal may be made electronically.

This condition must be met to give the Tribe an opportunity, in consultation with EPA, to ensure that the permittee has developed an adequate SWPPP for the facility. This

is a minimum requirement for the proposed permit and a less stringent condition does not exist for the Tribe's certification. See *id.* at 1, 4-7.

9.8.2.1.2 Submission of NOI and NOT.

The applicant must send a copy of its Notice of Intent (NOI) and Notice of Termination (NOT) to the Tribe's Environmental Programs Division at the same time or immediately after the applicant sends those documents to EPA. At the applicant's option, the submittal may be made electronically. See *id.*

9.8.2.1.3 Authorization to Inspect.

The permittee shall allow employees of the Tribe's Environmental Programs Division access to inspect any facility, equipment, practices, or operations regulated or required under this permit and to access records maintained under the conditions of this permit. See *id.*

9.8.2.1.4 Where to Submit Information

Information submitted to the Tribe's Environmental Programs Division must be sent to the following address:

Environmental Programs Division
P.O. Box 737 MS#81 Ignacio, CO 81137
jseebach@southernute-nsn.gov

9.8.3 MTR05I000: Indian country within the State of Montana

No additional requirements.

9.8.4 NDR05I000: Indian country within the State of North Dakota, as well as that portion of the Standing Rock Reservation located in South Dakota (except for the portion of the lands within the former boundaries of the Lake Traverse Reservation which is covered under South Dakota permit SDR05I000 listed below)

No additional requirements.

9.8.5 SDR05I000: Indian country within the State of South Dakota, as well as the portion of the Pine Ridge Reservation located in Nebraska and the portion of the lands within the former boundaries of the Lake Traverse Reservation located in North Dakota(except for the Standing Rock Reservation which is covered under North Dakota permit NDR05I000 listed above)

No additional requirements.

9.8.6 UTR05I000: Indian country within the State of Utah, except Goshute and Navajo Reservation lands (see Region 9)

No additional requirements.

9.8.7 WYR05I000: Indian country within the State of Wyoming

No additional requirements.

9.9 EPA Region 9: California, Hawaii, Nevada, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, the Confederated Tribes of the Goshute Reservation in Utah and Nevada, Indian Country within the State of Arizona including the Navajo Reservation in Utah and New Mexico and Arizona, the Duck Valley Reservation in Idaho, and the Fort McDermitt Reservation in Oregon.

9.9.1 ASR050000: American Samoa

No additional requirements.

9.9.2 AZR05I000: Indian country within the State of Arizona, including Navajo Reservation lands in New Mexico and Utah

No additional requirements.

9.9.3 CAR05I000: Indian country within the State of California

9.9.3.1 Hoopa Valley Tribe

Facilities in the Hoopa Valley Tribe lands are not eligible for stormwater discharge coverage under this permit. Contact the EPA Region 9 office for an individual permit application.

9.9.3.2 Morongo Band of Mission Indians

The following condition applies only to discharges in the Indian country of the Morongo Band of Mission Indians (see certification provided by the Morongo Band of Mission Indian, CWA410Cert_Morongo Band of Mission Indians_2021 MSGP):

9.9.3.2.1 *Compliance with Local Law.*

This certification does not exempt, and is provisional upon compliance with, other applicable statutes and codes administered by Federal and Tribal agencies. Pursuant to the Morongo Band of Mission Indians Surface Water Quality Protection Ordinance (Ordinance 39), all unpermitted discharges must be reported to the Morongo Band of Mission Indians Environmental Protection Department within 24 hours of the incident. See *id.* at 1.

9.9.3.2.2 *Submission of NOI and SWPPP.*

Each operator shall submit copies of the Notices of Intent (NOI) and Stormwater Water Pollution Plans (SWPPPs) to the Morongo Environmental Protection Department at the same time they are submitted to EPA. See *id.*

9.9.3.2.3 *Additional Reporting.*

All monitoring data and exceedance reports shall be provided to the Morongo Environmental Protection Department. See *id.*

9.9.3.2.4 *Where to Send Information.*

All required or requested documents should be submitted to:

Morongo Band of Mission Indians
Environmental Protection Department 12700 Pumarra Road
Banning, CA 92220
Or electronically at epd@morongo-nsn.gov

9.9.3.3 Twenty-Nine Palms Band of Mission Indians

The following condition applies only to discharges in the Indian country of the Twenty-Nine Palms Band of Mission Indians (see certification provided by the Twenty-Nine Palms Band of Mission Indians, CWA410Cert_Twenty-Nine Palms Band of Mission Indians_2021 MSGP):

9.9.3.3.1 *Submission of NOI*

Tribal EPA must receive written notification of the intent to discharge, and must be afforded the opportunity to evaluate whether the specific pollutant discharge proposed will violate TWQS prior to EPA granting the permit. See *id.* at 1-2

9.9.3.3.2 *Reporting*

Permitted entities under the MSGP must keep Tribal EPA informed of authorized discharges under the MSGP by submitting written information about the type, quantity, frequency and location, intended purpose, and potential human health

and/or environmental effects of their activities. These requirements are pursuant to Article 4 of the Twenty-Nine Palms Band of Mission Indians Water Pollution Control Ordinance {022405A}. This information may be submitted to Tribal EPA in the form of Storm Water Pollution Prevention Plans (SWPPPs), monitoring reports, or other reports as required under the MSGP. Spills, leaks, or unpermitted discharges must be reported in writing to Tribal EPA within 24 hours of the incident. See *id.*

9.9.4 GUR050000: Island of Guam

The following condition applies only to discharges in Guam (see certification provided by the Island of Guam, CWA410Cert_Guam_2021 MSGP):

9.9.4.1 *General Conditions*

- a. A1. For purposes of this Order, the term "Applicant" shall mean U.S. Environmental Protection Agency, and its agents, assignees, and contractors.
- b. A2. For purposes of this Order, the permit "Permittee" shall mean any facility granted coverage under EPA's 2020 Multi-Sector General Permit.
- c. A3. The Applicant shall enforce the proposed 2020 MSGP and ensure that the Permittee complies with the conditions of the permit at all times.
- d. A4. Nothing in this Order waives Guam EPA's authority to issue additional orders if Guam EPA determines that further actions are necessary to implement Guam water quality laws, or if additional conditions are necessary to further protect water quality.
- e. A5. In the event of changes or amendments to GWQS, or changes in or amendments to the Guam Water Pollution Control Act or the federal Clean Water Act, Guam EPA may issue an amendment to this Order to incorporate any such changes or amendments applicable to the proposed 2020 MSGP.
- f. A6. Failure of any person or entity to comply with this Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the terms of this Order.
- g. A7. All submittals required by this Order shall be sent to the Guam Environmental Protection Agency Attn: 401 Federal Permit Manager, Non-Point Source Program, EMAS Division, 3304 Mariner Avenue, Bldg. 17-3304, Barrigada, Guam 96913, AND via email to jesse.cruz@epa.guam.gov. *The submittals shall be identified with WQC Order #2020-10 and include the MSGP Permit Number, certifying representative's name, title, mailing address and phone number.*
- h. A8. This condition is specific to Sector J. Mineral Mining and Dressing covered by the proposed 2020 MSGP: Prior to any earth moving activities, a Clearing and Grading or Building Permit, shall be approved by Guam EPA. Sediment control designs and erosion control Best Management Practices (BMPs) must meet the design standard criteria required in the CNMI and Guam Stormwater Management Manual (October 2006) and in the Guam Soil Erosion and Sediment Control Regulations.
- i. A9. This condition is specific to section 2.1 Control Measures of the proposed 2020 MSGP: The selection and installation of stormwater control measures shall meet the design criteria and standards in the CNMI and Guam Stormwater Management Manual (October 2006) and the Guam Soil Erosion and Sediment Control Regulations.
- j. A10. A signed copy of the Notice of Intent (NOi), Stormwater Pollution Prevention Plan (SWPPP), and Notice of Termination (NOT) shall be submitted to Guam EPA, consistent with condition A7, at the same time it is submitted to U.S. EPA for review and approval. Coordination with Guam EPA is encouraged

when the receiving water(s) for the proposed stormwater discharge is/are being identified.

- k. A11. The coordinates and location of any proposed discharge outfall(s) shall be submitted to Guam EPA for review and approval, consistent with condition A7. Specific discharge information shall also be submitted.
- l. A12. The NOT application shall be submitted to Guam EPA for review and approval prior to submittal to U.S. EPA, consistent with condition A7. Guam EPA may conduct inspections to ensure that conditions of termination have been met and sources of pollutants have been removed or adequately mitigated. Guam EPA may advise U.S. EPA as to findings and recommendations concerning the Permittee's proposed termination of permit coverage.
- m. A13. A copy of all final and local permits shall be provided to Guam EPA within two weeks of receipt, consistent with condition A7.
- n. A14. Reports, monitoring and analytical data (e.g. Discharge Monitoring Reports (DMRs), follow-up monitoring reports, Exceedance Reports for Numerical Effluent Limits, etc.) submitted to EPA shall be concurrently submitted to Guam EPA, consistent with condition A7.
- o. A15. A copy of the MSGP, SWPPP, and NOI shall be on file at the Permittee and readily accessible.
- p. A16. Guam EPA shall be allowed access to any MSGP industrial facility and mitigation sites at any reasonable time to perform compliance inspections, monitoring, necessary data collection, and/or to ensure that discharge is not in violation of permit conditions, the Guam Water Pollution Control Act, GWQS, or any applicable Guam laws and/or regulations.
- q. A17. This Order does not authorize direct, indirect, permanent, or temporary impacts to waters under Guam EPA's jurisdiction (including wetlands) or related aquatic resources, except as specifically provided for in conditions of this Order.
- r. A18. A signed Statement of Understanding of Water Quality Certification Conditions shall be submitted to Guam EPA (see Attachment A for an example) per condition A7. See *id.* at 1-3.

9.9.4.2 Water Quality Conditions

- a. Stormwater discharges to waterbodies under the jurisdiction of Guam EPA must be consistent with the antidegradation policy in 22GAR §510I(b).
- b. B2. All discharges shall comply with the Guam Water Pollution Control Act (10 GCA Chapter 47) and implementing regulations at 22 GAR Chapter 5 (GWQS) and 22 GAR Chapter 10 (Guam Soil Erosion and Sediment Control (SESC) Regulations). Furthermore, nothing in this Order shall absolve the Permittee from liability for contamination and any subsequent cleanup of marine waters, surface waters, ground waters, or sediments occurring as a result of proposed 2020 MSGP stormwater discharges.
- c. B3. 2020 MSGP industrial stormwater discharges are prohibited as follows:
 - i. In Marine Waters, Category M-1 Excellent (22 GAR Chapter 5 §5102(b)(1)); and
 - ii. In Surface Waters, Category S-1 High (22 GAR Chapter 5 §5102(c)(I)).
- d. B4. All point source discharges to Guam's waters will be controlled (permitted) through the Federal NPDES, or through the Guam Environmental Protection Agency's local permit program, consistent with the requirements of these programs. 22 GAR Chapter 5 §5104(a)(I2)

- e. B5. Dewatering is not permitted under this certification. Dewatering activities shall require a separate Dewatering Permit from the Agency prior to any dewatering activity.
- f. B6. Mitigation and/or additional monitoring may be required if site inspections indicate water quality standards have not been met. See *id.*

EMERGENCY/CONTINGENCY MEASURES:

- g. B7. The Permittee shall develop and implement a Spill Prevention and Containment Plan.
- h. B8. The Permittee shall have adequate and appropriate spill response materials on hand to respond to emergency release of oil, petroleum or any other material into waters of the territory.
- i. B9. Any unpermitted discharge into territorial waters or onto land with a potential for entry into territorial waters, is prohibited. If this occurs, the Permittee shall immediately take the following actions:
 - i. Cease operations at the location of the violation or spill.
 - ii. Assess the cause of the water quality problem and take appropriate measures to correct the problem and/or prevent further environmental damage.
 - iii. Notify Guam EPA of the failure to comply. All petroleum spills shall be reported immediately to:
 - 1) Guam's Emergency 911 system
 - 2) Guam EPA's 24-Hour Spill Response Team at (67 I) 888-6488 or during working hours (67 J) 300-4751
 - 3) U.S. Coast Guard Sector Guam (671) 355-4824
 - 4) National Response Center 1-800-424-8802
 - iv. Submit a detailed written report to Guam EPA within five days of noncompliance that describes the nature of the event, corrective action taken and/or planned, steps to be taken to prevent a recurrence, results of any samples taken, and any other pertinent information. See *id.*
- j. B10. Compliance with this condition does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this Order or the resulting liability from failure to comply. See *id.*
- k. B11. Submittal or reporting of any of this information does not provide relief from any subsequent enforcement actions for unpermitted discharges to waters of the United States. See *id.*

9.9.4.3 Timing Requirements

- a. C1. This Order is valid for five (5) Years from Date of Certification, unless otherwise approved by the Guam EPA Administrator. See *id.*
- b. C2. The Permittee shall be required to adhere to the current Guam Coral Spawning Moratorium dates for both hard and soft corals where in-water activities may impair water quality. These dates can be obtained from the Guam Department of Agriculture, Division of Aquatic and Wildlife Resources, or the NOAA NMFS Pacific Islands Regional Office Habitat Conservation Division. See *id.*

9.9.4.4 Reporting and Notification Requirement Conditions

- a. D1. The Permittee shall provide notice to Guam EPA consistent with Condition A7: Immediately upon discovery of noncompliance with the provisions of this Order.
- b. D2. A Notice of Violation/Work Stop Order will be issued if certification conditions are not adhered to or when significant or sustained water quality degradation occurs. Work or discharge shall be suspended or halted until the Permittee addresses environmental problems/concerns to Guam EPA's satisfaction. Guam EPA may also levy penalties and fines (IO GCA §47111). Invalidity or enforceability of one or more provisions of this certification shall not affect any other provision of this certification. See *id.*

9.9.4.5 Right to Appeal

You have a right to appeal this Order to the Guam EPA Board of Directors, or request a hearing within 30 days of the date of receipt of this Order. Failure to appeal this Order constitutes a waiver of your right to a hearing. Any appeal will proceed pursuant to the provisions of 5 GCA Chapter 9, as provided by 22 GAR §5 I06(i)(7). Unless a written request for a hearing, signed by or on behalf of the person named as Applicant in the accompanying order, is delivered or mailed to the agency within 30 days after this order is signed, Guam EPA may proceed upon the Notice of Intent to Appeal without a hearing. The request for hearing may be made by delivering or mailing the enclosed form entitled Notice of Intent to Appeal (Appendix B) as provided in §9205 to the address below.

To appeal you must do both of the following within 30 days of the date of receipt of this Order:

- a. File your appeal and a copy of this Order with the Guam EPA Board of Directors (see address below). Filing means actual receipt by the Guam EPA Board of Directors during regular business hours.
- b. Serve a copy of your appeal and this Order to the Administrator in paper form - by mail or in person at the address below. Email or facsimile is not accepted. See *id.*

9.9.4.6 Address Information

GUAM EPA Board of Directors
3304 Mariner Avenue, Bldg. 17 - 33 04, Barrigada, Guam 96913

9.9.5 JAR050000: Johnston Atoll

No additional requirements.

9.9.6 MWR050000: Midway Island and Wake Island

No additional requirements.

9.9.7 MPR050000: Commonwealth of the Northern Mariana Islands

No additional requirements.

9.9.8 NVR05I000: Indian country within the State of Nevada, including the Duck Valley Reservation in Idaho, the Fort McDermitt Reservation in Oregon and the Confederated Tribes of the Goshute Reservation in Utah

No additional requirements.

9.10 Region 10: Alaska, Idaho (except see Region 9 for Duck Valley Reservation lands), Oregon (except see Region 9 for Fort McDermitt Reservation), Washington

9.10.1 AKR05F000: Areas in the Denali National Park and Preserve subject to industrial activity by a Federal Operator

No additional requirements.

9.10.2 AKR05I000: Indian country lands as defined in 18 U.S.C 1151 within the State of Alaska

No additional requirements.

9.10.3 IDR050000: The State of Idaho, except Indian country lands

Operators in the State of Idaho must meet the following conditions (see certification provided by the State of Idaho, CWA410Cert_ID_2021 MSGP).

9.10.3.1 *Numeric Benchmarks and Effluent Limitations*

Due to the discrete and relatively short duration of storm events that would result in discharges under this MSGP, DEQ believes it is appropriate to set numeric benchmarks and effluent limits based on acute aquatic life criteria rather than chronic aquatic life criteria or human health criteria, which are based on longer-term exposures. See *id.* at 1-7.

pH - The 2020 MSGP proposes a universal pH benchmark range of 6.0-9.0 standard units, which does not comply with Idaho WQS (IDAPA 58.01.02.250.01.a). Therefore, numeric effluent limitations and benchmark monitoring cutoff concentrations for pH shall be 6.5-9.0 standard units.

Total Arsenic - The 2020 MSGP proposes a total arsenic effluent limitation (Subsector G & Sector K) of 1.1 mg/L, which exceeds Idaho's acute and chronic criteria of 0.34 mg/L and 0.15 mg/L, respectively. Given that storms are discrete events of relatively short duration, DEQ believes it is more appropriate to use the acute water quality criteria as benchmark values; therefore, DEQ will require the total arsenic effluent limit to be set equal to Idaho's acute criterion of 0.34 mg/L.

Total Zinc - The 2020 MSGP proposes a monthly average maximum numeric effluent limit for zinc of 0.535 mg/L for Sector K, which will only comply with water quality standards when hardness is greater than 535 mg/L. Similarly, the proposed maximum daily limit and the monthly average maximum limit for zinc is 0.2 mg/L and 0.11 mg/L, respectively for Sector L; these limits do not generally comply with WQS when hardness values for the receiving water are less than 130 mg/L and 85 mg/L, respectively. Therefore, DEQ will require that the total zinc effluent limit be hardness based for all sectors requiring zinc effluent limits, including Sectors K and L.

Cadmium – The 2020 MSGP proposes hardness-based numeric benchmarks for cadmium based on EPA's 2016 Aquatic Life Ambient Water Quality Criteria for Cadmium. Idaho adopted state- specific cadmium criteria different from EPA's recommended national criteria; therefore, DEQ will require that cadmium benchmarks for all sectors subject to cadmium benchmarks be based on Idaho's hardness-based acute cadmium criterion, using the following table:

Freshwater Hardness Range (mg/L)	Cadmium Benchmark (µg/L)
0-24.99	0.20
25-49.99	0.42

50-74.99	0.75
75-99.99	1.05
100-124.99	1.34
125-149.99	1.62
150-174.99	1.88
175-199.99	2.14
200-224.99	2.39
225-249.99	2.64
>250	2.89

Chromium III – The 2020 MSGP proposes a benchmark Chromium III concentration of 570 µg/L. However, this concentration will only comply with Idaho WQS when hardness is 100 mg/L or greater. Therefore, DEQ will require that Chromium III benchmarks be based on the hardness-based acute Chromium III criterion, using the following table:

Freshwater Hardness Range (mg/L)	Chromium III Benchmark (µg/L)
0-49.99	183
50-74.99	323
75-99.99	450
100-124.99	570
125-149.99	684
150-174.99	794
175-199.99	901
200-224.99	1005
225-249.99	1107
>250	1207

Total Recoverable Copper – The 2020 MSGP proposes hardness-based numeric benchmarks for copper. However, Idaho water quality standards require that copper criteria be derived using the Biotic Ligand Model (BLM). In order to ensure compliance with the copper BLM criteria, the permittee for each facility subject to copper benchmarks in the 2020 MSGP must implement one of the following options:

- a. Utilize a numeric benchmark for copper that corresponds to the most conservative estimate of acute copper criteria for Idaho waters: 1.0 µg/L; or
- b. Collect BLM input parameters as described in IDAPA 58.01.02.210.03.c concurrent with quarterly benchmark monitoring, use the BLM to derive an acute copper criterion based on these data, and apply that BLM-derived criterion as the numeric copper benchmark; or
- c. Make a written application for, and obtain DEQ approval of, a numeric copper benchmark that is protective of aquatic life in the receiving waters before discharging under the 2020 MSGP. See *id.*

9.10.3.2 Monitoring of Discharges to Impaired Waters

The proposed 2020 MSGP does not require monitoring on impaired waters where no pollutant has been identified as the cause of impairment. For water bodies included on the state's 303(d) list (Category 5 of the Integrated Report) as "cause unknown," or "combined biota/habitat assessments" the permittee must monitor for suspected pollutants listed in the cause comments section of the integrated report (e.g., nutrients, metals, pesticides). See *id.*

9.10.3.3 New or Expanding Discharges

New dischargers or existing dischargers wishing to expand their discharge to high-quality waters are only eligible for coverage under the MSGP if the discharger establishes, to the satisfaction of EPA and DEQ, that the new or expanded discharge will not result in an increase in the concentration of pollutants relevant to the use for which the water is considered high quality, or that the increase constitutes insignificant degradation as defined in the WQS (IDAPA 58.01.02.052.08.a).

A new discharger or an existing discharger wishing to expand must include an analysis regarding whether the new or expanded discharge will cause an increase in the pollutants relevant to the use for which the water is considered high quality. If there is an increase, the permittee must identify whether that increase constitutes insignificant degradation in the NOI, or in the planned changes report. These NOIs and planned changes reports must be submitted to both EPA and DEQ.

If DEQ determines the new discharge or planned changes of an existing discharger will result in significant degradation, the permittee must provide to DEQ an alternatives analysis (IDAPA 58.01.02.052.08.c), a socioeconomic justification (IDAPA 58.01.02.052.08.d) and information regarding other source controls (IDAPA 58.01.02.052.08.b), and obtain DEQ's approval in accordance with Idaho's antidegradation implementation process (IDAPA 58.01.02.052.08.e). See *id.*

9.10.3.4 Outstanding Resource Waters.

Any permittee proposing to discharge to an outstanding resource water shall not be covered under this General Permit (Permit Part I.E.8) and is required to apply for an individual [IPDES permit](#) from DEQ (IDAPA 58.01.02.052.09). See *id.*

9.10.3.5 Sector L – Stormwater and Leachate

Stormwater entering a landfill, including runoff from areas that have received

daily cover which may have contacted waste material, must be managed as leachate and is thus not eligible for coverage under the MSGP (40 CFR 258.26(a)(2); Municipal Solid Waste Landfill Criteria Technical Manual, EPA 530-R-93-017, 1998). Stormwater from a closed landfill or from areas of the landfill that have received final cover is not leachate and may be covered under the MSGP. See *id.*

9.10.3.6 Stormwater Pollution Prevention Plan (SWPPP) Availability.

If requested by DEQ, the permittee must submit a copy of the SWPPP to DEQ within 14 days of the request. See *id.*

9.10.3.7 Reporting of Discharges Containing Hazardous Materials or Petroleum Products.

Any spill of hazardous materials must be immediately reported to the State Communications Center by calling 1-800-632-8000 or 208-846-7610.

Spills must also be reported to the appropriate DEQ Regional Office (Table 1). Spills of petroleum products that exceed 25 gallons or that cause a visible sheen on surface waters should be reported to DEQ within 24-hours. Petroleum product spills of less than 25 gallons or spills that do not cause sheen on surface waters must only be reported to DEQ if clean-up cannot be accomplished within 24-hours (IDAPA 58.01.02.850, 58.01.02.851, 58.01.02.852). See *id.*

9.10.3.8 Other Reporting Requirements

Copies of the following information must be sent to the appropriate DEQ Regional Office:

- a. Notices of Intent and Termination (NOIs and NOTs), as required by Permit Part 7.2.1
- b. Monitoring data collected pursuant to Permit Part 4 of the MSGP, as well as any additional monitoring required by this § 401 water quality certification
- c. Exceedance Reports, as required by Permit Part 7.5
- d. Planned Changes Reports, as required by Permit Parts 7.6.4 and 7.6.5

Both monitoring data and exceedance reports must be sent to the appropriate DEQ Regional Office within 30 days of receipt of the analytical results. DEQ Regional Office contact information is listed in Table 1. See *id.*

9.10.3.9 Material Modifications

Pursuant to 33 U.S.C. § 1341, this certification is conditioned upon the requirement that any material modification of the permit or the permitted activities—including without limitation, significant changes to the MSGP, any modifications of the permit to reflect new or modified TMDLs, wasteload allocations, site-specific criteria, variances, or other new information—shall first be provided to DEQ for review to determine compliance with Idaho WQS and to provide additional certification pursuant to Section 401. See *id.*

9.10.3.10 Alternative Limitations

The following condition in the MSGP can be made less stringent and still comply with WQS:

Benchmark Values

The benchmark value for arsenic is 150 µg/L. This value is equivalent to Idaho's chronic water quality criterion. Given that storms are discrete events of relatively short duration, DEQ believes it is more appropriate to use the acute water quality

criterion as a benchmark value. Therefore, the benchmark value for arsenic can be set equal to 340 µg/L, and still comply with Idaho WQS. See *id.*

9.10.3.11 Idaho DEQ Regional and State Office Contacts.

Table 1. Idaho DEQ regional and state office contacts.

Regional and State Office	Address	Phone Number	Email
Boise	1145 N. Orchard St., Boise 83706	208-373-0550	kati.carberry@deq.idaho.gov
Coeur d'Alene	2110 Ironwood Parkway, Coeur d'Alene 83814	208-769-1422	chantilly.higbee@deq.idaho.gov
Idaho Falls	900 N. Skyline Dr., Suite B, Idaho Falls 83402	208-528-2650	troy.saffle@deq.idaho.gov
Lewiston	1118 F St., Lewiston 83501	208-799-4370	sujata.connell@deq.idaho.gov
Pocatello	444 Hospital Way, #300, Pocatello 83201	208-236-6160	lynn.vanevery@deq.idaho.gov
Twin Falls	650 Addison Avenue West, Suite 110, Twin Falls 83301	208-736-2190	sean.woodhead@deq.idaho.gov
State Office	1410 North Hilton St., Boise 83706	208-373-0502	jason.pappani@deq.idaho.gov

9.10.4 IDR05I000: Indian country lands within the State of Idaho, except Duck Valley Reservation lands, which are covered under Nevada permit NVR05I000

9.10.4.1 Shoshone-Bannock Tribes

The following conditions apply only to discharges to waters of the Shoshone-Bannock Tribes (see certification provided by the Shoshone-Bannock Tribes, CWA410Cert_Shoshone-Bannock Tribes_2021 MSGP):

9.10.4.1.1 Submission of NOI, Monitoring Data, and Reports.

Copies of the following information must be sent to the SBT-WRD:

- Notice of Intent (NOI)
- Monitoring data collected pursuant to section 4.2 of the MSGP
- Exceedance Reports

The monitoring data and exceedance reports must be sent to the SBT-WRD within thirty (30) days of receipt of analytical results. See *id* at 1-3.

Contact information for SBT-WRD:

Shoshone-Bannock Tribes Water Resources Department
PO Box 306 Pima Drive
Fort Hall, ID 83203
Phone: (208) 239-4582
Fax:(208)239-4592

9.10.4.1.2 SWPPP Availability.

If requested by the SBT-WRD, the permittee must submit a copy of the SW PPP to SBT-WRD within fourteen (14) days of the request. See *id.*

9.10.5 ORR05I000: Indian country lands within the State of Oregon, except Fort McDermitt Reservation lands, which are covered under Nevada permit NVR05I000

No additional requirements.

9.10.6 WAR05I000: Indian country lands within the State of Washington

9.10.6.1 Confederated Tribes of the Colville Reservation

No additional requirements.

9.10.6.2 Lummi Nation

No additional requirements.

9.10.6.3 Puyallup Tribe of Indians

No additional requirements.

9.10.6.4 Port Gamble S'Klallam Tribe

The following conditions apply only to discharges to waters of the Port Gamble S'Klallam Tribal Land (see certification provided by the Port Gamble S'Klallam Tribe, CWA410Cert_Port Gamble S'Klallam Tribe_2021 MSGP):

9.10.6.4.1 *Compliance with Port Gamble S'Klallam Tribe Water Quality Standards.*

Each operator shall be responsible for achieving compliance with the Port Gamble S'Klallam Tribe Water Quality Standards for Surface Waters. Please see the PGST website (pgst.nsn.us) to review a copy of the Port Gamble S'Klallam Tribe Water Quality Standards for Surface Waters See *id.* at 1.

9.10.6.4.2 *Submission of SWPPP*

Each operator shall develop and submit a Storm Water Pollution Prevention Plan to the Port Gamble S'Klallam Natural Resources Department for review and approval by the Tribe prior to beginning any discharge activities. See *id.*

9.10.6.4.3 *Submission of NOI, Reports, and NOT*

Each operator shall submit a copy of the Notice of Intent, analytical monitoring results, any Exceedance Reports, Annual Reports, and Notice of Termination to the PGST Natural Resources Department at the same time it is submitted to the Environmental Protection Agency (EPA). See *id.*

9.10.6.5 Spokane Tribe of Indians

The following conditions apply only to discharges to waters of the Spokane Tribal Land (see certification provided by the Spokane Tribe of Indians, CWA410Cert_Spokane Tribe of Indians_2021 MSGP):

9.10.6.5.1 *Compliance with Water Quality Standards.*

The permittee shall be responsible for achieving compliance with the Spokane Tribal Water Quality Standards. See *id.* at 1.

9.10.6.5.2 Submission of SWPPP

The permittee shall submit all Pollution Prevention Plans to the Spokane Tribal Water Control Board for review and approval at the same time they are submitted to EPA and prior to any discharge activities. See *id.*

9.10.6.5.3 Compliance with IRMP

The permittee shall comply with all Spokane Tribal Integrated Resource Management Plan (IRMP) guidelines for land use activities and disturbances. See *id.*

9.10.6.5.4 Inspection.

The permittee shall allow the Tribal Water Control Board to inspect the storm water management system and adopt recommendations made anytime throughout its operation. See *id.*

9.10.6.5.5 Monitoring,

Monitoring of the discharge shall occur at a level indicated by EPA, the Tribe, are subject to change, and shall be submitted to both entities. See *id.*

9.10.6.5.6 Where to send information.

Water Control Board c/o Brian Crossley
PO Box 480
Wellpinit, WA 99040

9.10.6.6 Swinomish Indian Tribal Community

Facilities in the Swinomish Indian Tribal lands and are not eligible for stormwater discharge coverage under this permit. Contact the EPA Region 10 office for an individual permit application.

9.10.6.7 Tulalip Tribes

The following conditions apply only to discharges to waters of the Tulalip Tribes (see certification provided by the Tulalip Tribes, CWA410Cert_Tulalip Tribes_2021 MSGP):

9.10.6.7.1 Submission of NOI, NOT and No Exposure.

Copies of the Notice of Intent (NOI), Notice of Termination (NOT), and No Exposure Certification shall be submitted to the Tribe's Natural Resources Department. See *id.* at 1-2.

9.10.6.7.2 Submission of SWPPP.

A copy of the Stormwater Pollution Plans (SWPPPs) shall be submitted to the Tribe's Natural Resources Department at least thirty (30) days in advance of submitting the NOI to EPA. See *id.*

9.10.6.7.3 Compliance with Tribe's Water Quality Standards:

Each permittee shall be responsible for achieving compliance with the Tribe's Water Quality Standards. See *id.*

9.10.6.7.4 Submission and approval of Monitoring Plans.

A monitoring plan, if applicable, shall be submitted to the Tribe's Natural Resources Department and approved by the Tribe prior to initiation of monitoring required under Part 6 of this permit. See *id.*

9.10.6.7.5 Submission of Monitoring Data and Reports:

The results of any monitoring required by this permit and reports must be sent to the Tribe's Natural Resources Department, including a description of the corrective

actions required and undertaken to meet effluent limits or benchmarks (as applicable). See *id.*

9.10.6.7.6 Authorization to Inspect.

The Natural Resources Department staff may conduct an inspection of any facility covered by this permit to ensure compliance with tribal water quality standards. The Department may enforce its certification conditions.

The Tulalip Tribes are federally recognized successors in the interest to the Snohomish, Snoqualmie, Skykomish, and other allied tribes and bands signatory to the Treaty of Point Elliott. See *id.*

9.10.6.7.7 Incorporation by reference.

This certification does not exempt the applicant from compliance with other statutes and codes administered by the Tribes, county, state and federal agencies. See *id.*

9.10.6.7.8 Invalidation.

This certification will cease to be valid if the project is constructed and/or operated in a manner not consistent with the project description contained in the permit. This certification will also cease to be valid and the applicant must reapply with an updated application if information contained in the permit is voided by subsequent submittals. See *id.*

9.10.6.7.9 Modification.

Nothing in this certification waives the Tulalip Tribes of Washington's authority to issue modifications to this certification if additional impacts due to operational changes are identified, or if additional conditions are necessary to protect water quality or further protect the Tribal Communities interest. See *id.*

9.10.6.7.10 Permits on-site.

A copy of the permit shall be kept on the job site and readily available for reference by the construction supervisor, construction managers and site foreman, and Tribal inspectors. In addition, a sign of permit coverage needs to be posted at a safe, publicly accessible location. See *id.*

9.10.6.7.11 Project Management.

The applicant shall ensure that project or site managers, construction managers and site foreman, and other responsible parties have read and understand conditions of the permit, this certification, and other relevant documents, to avoid violations or noncompliance with this certification. See *id.*

9.10.6.7.12 Emergencies/Contingency Measures.

In the event the operator or applicant is unable to comply with the permit terms and conditions due to any cause, the operator or applicant shall immediately take action to stop the violation and correct the problem, and immediately report spill events to EPA's 24-hour Spill Response Team at (206) 553-1263 and the Tulalip Tribes Police Department (360) 716-5959. Compliance with this condition does not relieve the applicant from responsibility to maintain continuous compliance with the terms and conditions of this certification or the resulting liability from failure to comply. See *id.*

9.10.6.7.13 Tribal ESA Consultation.

Consultation with the Tribes is required when permitted actions may effect federally-listed threatened or endangered species and designated critical habitat. Information required as part of the consultation shall include:

- a. Basis of the determination that permit actions will not adversely affect federally-listed as endangered or threatened ("listed") under the Endangered Species Act (ESA) and will not result in the adverse modification or destruction of designated critical habitat including appropriate measures to be undertaken to avoid or eliminate the likelihood of adverse effects (under Criterion E in Section 1.1.4.5); and
- b. Notice of Intent form complete with extent of action area, list of federally-listed threatened or endangered species or designated critical habitat likely to occur in action area, list of potential pollutants (if you are a new discharger) or list of pollutants for which you have ever exceeded an applicable benchmark or effluent limitations guideline, or for which your discharge has ever been found to cause or contribute to an exceedance of an applicable water quality standard (if you are an existing discharger). See *id.*

9.10.6.7.14 Discharges to CERCLA Sites:

This permit does not authorize direct discharges to certain sites undergoing remedial cleanup actions pursuant to the Comprehensive Environmental Response,

Compensation and Liability Act (CERCLA) unless first approved by the appropriate EPA Regional office. In the case of the Tulalip Landfill site, the Tulalip Tribes also requests notification by the facility and consultation with EPA prior to discharge. Contaminants at this site may include but are not limited to: dioxins, furans, arsenic, copper, lead, zinc, 4-methyl-phenol, Hex-CB, HPAHs, PCBs, PCE, cadmium, mercury, and LPAHs. See *id.*

9.10.6.7.15 Discharge-related Activities that have Potential to Cause an Adverse Effect on Historic Properties:

Installation of stormwater controls that involve subsurface disturbances may potentially have an adverse impact on historic properties. Procedures detailed in Appendix F of the permit shall be completed. Richard Young, of the Tulalip Tribe's Cultural Resources Department shall be contacted prior to initiating discharge-related activities that may have an impact on historic properties. His contact information is (360) 716-2652 and ryoung@tulaliptribes-nsn.gov. See *id.*

9.10.6.7.16 Where to Submit Information:

All required or requested documents shall be sent to the:

Tulalip Tribes
Natural Resources Environmental Division c/o Kurt Nelson and Valerie Streeter
6704 Marine Drive
Tulalip, Washington 98271

9.10.7 WAR05F000: Areas in the State of Washington, except those located on Indian Country lands, subject to industrial activity by a Federal Operator

Permittees in the State of Washington must meet the following conditions (see certification provided by the State of Washington, CWA410Cert_WA_2021 MSGP):

9.10.7.1 General Conditions.

- a. For purposes of this Order, the term "Applicant" shall mean U.S. Environmental Protection Agency, and its agents, assignees and contractors.
- b. For Purposes of this Order, the Permit "Permittee" shall mean any facility granted coverage under EPA's Multi Sector General Permit.
- c. The Applicant shall enforce the permit and ensure that the Permittee complies with

the conditions of the permits at all times.

- d. Nothing in the Certification waives Ecology's authority to issue additional orders if Ecology determines that further actions are necessary to implement the water quality laws of the state. Further, Ecology retains continuing jurisdiction to make modifications hereto through supplemental orders, if additional impacts due to project construction or operation are identified (e.g., violations of water quality standards, downstream erosion, etc.), or if additional conditions are necessary to further protect water quality.
- e. In the event of changes or amendments to the state water quality, ground water quality, or sediment standards, or changes in or amendments to the state Water Pollution Control Act (RCW 90.48) or the federal Clean Water Act, Ecology may issue an amendment to this Certification to incorporate any such changes or amendments applicable to this project.
- f. Failure of any person or entity to comply with this Certification may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the terms of the Certification. See *id.* at 3.

9.10.7.2 Water Quality.

- a. This Certification does not authorize exceedances of water quality standards established in chapter 173-201A WAC.
- b. Discharges shall not cause or contribute to a violation of surface water quality standards (chapter 173-201A WAC), ground water quality standards (chapter 173-200 WAV), sediment management standards (chapter 173-204 WAC), and human health based criteria in the National Toxics Rule (40 CFR Part 131.36). Discharges that are not in compliance with these standards are not authorized.
- c. Prior to the discharge of stormwater and non-stormwater to waters of the state, the Permittee shall apply all known, available, and reasonable methods of prevention, control, and treatment (AKART). This includes the preparation and implementation of an adequate Stormwater Pollution Prevention Plan (SWPPP), with all appropriate best management practices (BMPs) installed and maintained in accordance with the SWPPP and the terms and conditions of this permit. The Permittee shall include each of the following mandatory BMPs in the SWPPP and implement the BMPs. The Permittee may omit individual BMPs if site conditions render the BMP unnecessary or infeasible and the Permittee provides alternative and equally effective BMPs. The Permittee must justify each BMP omission in the SWPPP. BMPs shall be consistent with:
 - i. *2019 Stormwater Management Manual for Western Washington*, for sites west of the crest of the Cascade mountains; or
 - ii. *2019 Stormwater Management Manual for Eastern Washington*, for sites east of the crest of the Cascade Mountains; or
 - iii. Revisions to the manuals in S3.A.3. a & b., or other stormwater management guidance documents or manuals which provide an equivalent level of pollution prevention, that are approved by Ecology and incorporated into this permit in accordance with the permit modification requirements of WAC 173-226-230. For purposes of this section, the documents listed in Appendix 10 of the August 1, 2019 Phase I Municipal Stormwater Permit are hereby incorporated into this permit; or
 - iv. Documentation in the SWPPP that the BMPs selected are demonstrably equivalent to practices contained in stormwater technical manuals approved by Ecology, including the proper selection, implementation, and maintenance of all applicable and appropriate best management practices for on-site pollution control.

d. Additional Sampling Requirements and Effluent Limits for Discharges to Certain Impaired Waters and Puget Sound Sediment Cleanup Sites.

- i. Permittees discharging to a 303(d)-listed waterbody (Category 5), either directly or indirectly through a stormwater drainage system, shall comply with the applicable sampling requirements and numeric effluent limits in Table 1.

For purposes of this condition, “applicable sampling requirements and effluent limits” means the sampling and effluent limits in Table 1 that correspond to the specific parameter(s) the receiving water is 303(d)-listed for at the time of permit coverage, or Total Suspended Solids (TSS) if the waterbody is 303(d)-listed (Category 5) for sediment quality at the time of MSGP coverage.

If a discharge point is subject to an impaired waterbody effluent limit for a parameter that also has a benchmark, the effluent limit supersedes the benchmark. All references to Category 5 pertain to the 2012 EPA-approved Water Quality Assessment.

The 2012 EPA-approved Water Quality Assessment may be viewed online at: http://www.ecy.wa.gov/programs/wq/links/wq_assessments.html. See *id.*

Table 1: Sampling and Effluent Limits Applicable to Discharges to 303(d)-listed Waters

Parameter	Units	Maximum Daily ^a		Analytical Method ^b	Laboratory Quantitation Level ^c	Sampling Frequency ^d
		Freshwater	Marine			
Turbidity	NTUs	25	25	EPA 180.1 Meter	0.5	1/quarter
pH	SU	j	Between 7.0 and 8.5	Meter	±0.1	1/quarter
Fecal Coliform Bacteria	# colonies/100 mL	i	i	SM 9222D	20 CFU/100 mL	1/quarter
TSS ^f	mg/L	30	30	SM2540-D	5	1/quarter
Phosphorus, Total	mg/L	g	g	EPA 365.1	0.01	1/quarter
Total Ammonia (as N)	mg/L	g	g	SM 4500 NH ₃ -GH	0.3	1/quarter
Copper, Total	µg/L	g	g	EPA 200.8	2.0	1/quarter
Lead, Total	µg/L	g	g	EPA 200.8	0.5	1/quarter
Mercury, Total	µg/L	2.1	1.8	EPA1631E	0.0005	1/quarter
Zinc, Total	µg/L	g	g	EPA 200.8	2.5	1/quarter
Pentachlorophenol	µg/L	9 ^h	g	EPA 625	1.0	1/quarter

^a Maximum daily effluent limit means the highest allowable daily discharge. The daily discharge means the discharge of a pollutant measured during a calendar day. The daily discharge is the average measurement of the pollutant over the day; this does not apply to pH.

^b Or other equivalent method with the same reporting level.

- c. The Permittee shall ensure laboratory results comply with the quantitation level (QL) specified in the table. However, if an alternate method from 40 CFR Part 136 is sufficient to produce measurable results in the sample, the Permittee may use that method for analysis. If the Permittee uses an alternative method it must report the test method and QL on the DMR. If the Permittee is unable to obtain the required QL due to matrix effects, the Permittee must report the matrix-specific method detection level (MDL) and QL on the DMR.
- d. 1/quarter means at least one sample taken each quarter, e.g., Q1 = Jan 1 – March 31, Q2 = April 1 – June 30.
- e. Permittees shall use either a calibrated pH meter consistent with EPA 9040 or an approved state method.
- f. Permittees who discharge to a waterbody 303(d)-listed (Category 5) for sediment quality shall sample the discharge for TSS.
- g. Site-specific effluent limitation will be assigned at the time of permit coverage.
- h. Based on a pH of 7.0.
- i. A numeric effluent limit does not apply, but Permittees must sample according to Table 1. In addition, the following mandatory BMPs shall be incorporated into the SWPPP and implemented; the Permittee must:
 - 1) Use all known, available and reasonable methods to prevent rodents, birds, and other animals from feeding/nesting/roosting at the facility. Nothing in this section shall be construed as allowing violations of any applicable federal, state or local statutes, ordinances, or regulations including the Migratory Bird Treaty Act.
 - 2) Perform at least one annual dry weather inspection of the stormwater system to identify and eliminate sanitary sewer cross-connections.
 - 3) Install structural source control BMPs to address on-site activities and sources that could cause bacterial contamination (e.g., dumpsters, compost piles, food waste, and animal products).
 - 4) Implement operational source control BMPs to prevent bacterial contamination from any known sources of fecal coliform bacteria (e.g., animal waste).
 - 5) Conduct additional bacteria-related sampling and/or BMPs, if ordered by Ecology on a case-by-case basis.
- j. The effluent limit for a Permittee who discharges to a freshwater body 303(d)-listed for pH is: Between 6.0 and 8.5, if the 303(d)-listing is for high pH only; Between 6.5 and 9.0, if the 303(d)-listing is for low pH only; and Between 6.5 and 8.5 if the 303(d)-listing is for both low and high pH. All pH effluent limits are applied end-of-pipe.
 - ii. Permittees discharging to a Puget Sound Sediment Cleanup Site³, either directly or indirectly through a stormwater drainage system, shall comply with this section:
 - 1) Permittees shall sample the discharge for Total Suspended Solids (TSS) in accordance with Table 2.
 - 2) If the waterbody is listed within Category 5 (sediment medium) where the *outfall* discharges to the waterbody, the discharge is subject to the TSS numeric effluent limit in Attachment A, Table 1.

³ **Puget Sound Sediment Cleanup Site:** means Category 4B (Sediment) portions of Budd Inlet (Inner), Commencement Bay (Inner), Commencement Bay (Outer), Dalco Passage and East Passage, Duwamish Waterway (including East and West Waterway), Eagle Harbor, Elliot Bay, Hood Canal (North), Liberty Bay, Rosario Strait, Sinclair Inlet, and Thea Foss Waterway; Category 5 (Sediment) portions of the Duwamish Waterway; Category 4A (Sediment) portions of Bellingham Bay (Inner); and the Everett/Port Gardner, Oakland Bay/Shelton Harbor, and Port Angeles Harbor sediment cleanup areas, as mapped on Ecology's ISGP website. All references to Category 4A, 4B and 5 pertain to the 2012 EPA-approved Water Quality Assessment

- 3) If the waterbody is not listed within Category 5 (sediment medium) where the outfall discharges to the waterbody (e.g., Category 4B, etc.), the discharge is subject to the TSS benchmark in Attachment A, Table 2. If the discharge is subject to more than one TSS benchmark value (i.e., two different benchmarks), the lower benchmark supersedes the higher one. If a discharge exceeds the TSS benchmark, the Permittee shall implement corrective actions in accordance with the MSGP.
- 4) Permittees shall remove accumulated solids from storm drain lines (including inlets, catch basins, sumps, conveyance lines, and oil/water separators) owned or controlled by the Permittee at least once during the term of the MSGP.

Permittees shall conduct line cleaning operations (e.g., jetting, vacuuming, removal, loading, storage, and/or transport) using BMPs to prevent discharges of storm drain solids to surface waters of the state.

Removed storm drain solids and liquids shall be disposed of in accordance with applicable laws and regulations and documented in the SWPPP.

- 5) Prior to removing storm drain solids according to Attachment A, Condition 2.D, Permittees shall sample and analyze storm drain solids in accordance with Table 3. Storm drain solids must be collected/sampled from a representative catch basin, sump, pipe, or other feature within the storm drain system that corresponds to the discharge point where Total Suspended Solids (TSS) samples are collected per Attachment A. Samples may be either a single grab sample or a composite sample. Samples must be representative of the storm drain solids generated and accumulated in the facility's drainage system. To the extent possible, sample locations must exclude portions of the drainage system affected by water from off-site sources (e.g., run-on from off-site properties, tidal influence, backflow). See *id.*

Table 2: Benchmarks and Sampling Requirements Applicable to Discharges to Puget Sound Sediment Cleanup Sites that are not Category 5 for Sediment Quality

Parameter	Units	Benchmark Value ^a	Analytical Method	Laboratory Quantitation Level ^b	Minimum Sampling Frequency ^c
TSS	mg/L	30	SM2540-D	5	1/quarter

- a. Permittees sampling more than once per quarter shall average the sample results and compare the average value to the benchmark to determine if the discharge has exceeded the benchmark value. However, if Permittees collect more than one sample during a 24-hour period, they must first calculate the daily average of the individual grab sample results collected during that 24-hour period; then use the daily average to calculate a quarterly average.
- b. The Permittee shall ensure laboratory results comply with the quantitation level (QL) specified in the table. However, if an alternate method from 40 CFR Part 136 is sufficient to produce measurable results in the sample, the Permittee may use that method for analysis. If the Permittee uses an alternative method it must report the test method and QL on the DMR. If the Permittee is unable to obtain the required QL due to matrix effects, the Permittee must report the matrix-specific method detection level (MDL) and QL on the DMR.
- c. 1/quarter means at least one sample taken each quarter, year-round.

Table 3: Sampling and Analytical Procedures for Storm Drain Solids

Analyte	Method in Sediment	Quantitation Level ^a
Conventional Parameters		
Percent total solids	SM 2540G, or ASTM Method D 2216	NA
Total organic carbon	Puget Sound Estuary Protocols (PSEP 1997), or EPA 9060	0.1%
Grain size	Ecology Method Sieve and Pipette (ASTM 1997), ASTM D422, or PSEP 1986/2003	NA
Metals		
Antimony, Total	EPA Method 200.8 (ICP/MS) , EPA Method 6010 or EPA Method 6020	0.2 mg/kg dw ^b
Arsenic, Total	EPA Method 200.8 (ICP/MS) , EPA Method 6010 or EPA Method 6020	0.1 mg/kg dw
Beryllium, Total	EPA Method 200.8 (ICP/MS) , EPA Method 6010 or EPA Method 6020	0.2 mg/kg dw
Cadmium, Total	EPA Method 200.8 (ICP/MS) , EPA Method 6010 or EPA Method 6020	0.2 mg/kg dw
Chromium, Total	EPA Method 200.8 (ICP/MS) , EPA Method 6010 or EPA Method 6020	0.5 mg/kg dw
Copper, Total	EPA Method 200.8 (ICP/MS) , EPA Method 6010 or EPA Method 6020	0.2 mg/kg dw
Lead, Total	EPA Method 200.8 (ICP/MS) , EPA Method 6010 or EPA Method 6020	0.2 mg/kg dw
Mercury, Total	EPA Method 1631E, or EPA Method 7471B	0.005 mg/kg dw
Nickel, Total	EPA Method 200.8 (ICP/MS) , EPA Method 6010 or EPA Method 6020	0.1 mg/kg dw
Selenium, Total	EPA Method 200.8 (ICP/MS) , EPA Method 6010 or EPA Method 6020	0.5 mg/kg dw
Silver, Total	EPA Method 200.8 (ICP/MS) , EPA Method 6010 or EPA Method 6020	0.1 mg/kg dw
Thallium, Total	EPA Method 200.8 (ICP/MS) , EPA Method 6010 or EPA Method 6020	0.2 mg/kg dw
Zinc, Total	EPA Method 200.8 (ICP/MS) , EPA Method 6010 or EPA Method 6020	5.0 mg/kg dw
Organics		
PAH compounds ^c	EPA Method 8270 D	70 µg/kg dw

PCBs (aroclor)s, Total ^d	EPA Method 8082	10 µg/kg dw
Petroleum Hydrocarbons		
NWTPH-Dx	NWTPH-Dx	25.0-100.0 mg/kg dw

- a. The Permittee shall ensure laboratory results comply with the quantitation level (QL) specified in the table. However, if an alternate method is sufficient to produce measurable results in the sample, the Permittee may use that method for analysis. If the Permittee uses an alternative method, it must report the test method and QL on the sediment monitoring report. All results shall be reported. For values below the QL, or where a QL is not specified, report results at the method detection level (MDL) from the lab and the qualifier of "U" for undetected at that concentration. If the Permittee is unable to obtain the required QL due to matrix effects, the Permittee must report the matrix-specific MDL and QL on the DMR.
- b. dw = dry weight.
- c. PAH compounds include: 1-methylnaphthalene, 2-methylnaphthalene, 2-chloronaphthalene, acenaphthylene, acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b, k)fluoranthene, benzo(ghi)perylene, dibenzo(a,h)anthracene, dibenzofuran, carbazole, chrysene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, and pyrene.
- d. Total = sum of PCB aroclors 1016+1221+1232+1242+1248+1254+1260.

- 6) All storm drain solids sampling data shall be reported to EPA no later than the DMR due date for the reporting period in which the solids were sampled. A copy of the lab report shall be submitted to EPA. See *id.*

e. Requirements for Discharges to Waters with Applicable TMDLs

- i. The Permittee shall comply with applicable TMDL determinations. Applicable TMDLs or TMDL determinations are TMDLs which have been completed by the issuance date of this permit, or which have been completed prior to the date that the Permittee's NOI is received by EPA, whichever is later. EPA will list the Permittee's requirements to comply with this condition on the letter of permit coverage.
- ii. TMDL requirements associated with TMDLs completed after the issuance date of this permit only become effective if they are imposed through an administrative order issued by EPA.
- iii. Where Ecology has established a TMDL wasteload allocation and sampling requirements for the Permittee's discharge, the Permittee shall comply with all requirements of the TMDL.
 - 1) If a discharge point is subject to a TMDL-related effluent limit for a parameter that also has a benchmark, the effluent limit supersedes the benchmark.
- iv. Where Ecology has established a TMDL general wasteload allocation for industrial stormwater discharges for a parameter present in the Permittee's discharge, but has not identified specific requirements, EPA will assume the Permittee's compliance with the terms and conditions of the permit complies with the approved TMDL.
- v. Where Ecology has not established a TMDL wasteload allocation for industrial stormwater discharges for a parameter present in the Permittee's discharge, but has not excluded these discharges, EPA will assume the Permittee's compliance with the terms and conditions of this permit complies with the approved TMDL.

- vi. Where a TMDL for a parameter present in the Permittee's discharge specifically precludes or prohibits discharges of stormwater associated with industrial activity, the Permittee is not eligible for coverage under the MSGP. See *id.*

Appendix A - Definitions, Abbreviations, and Acronyms (for the purposes of the 2021 MSGP)

A.1. DEFINITIONS

Action Area – all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action. See 50 CFR 402. For the purposes of this permit and for application of Endangered Species Act requirements, the following areas are included in the definition of action area:

- The areas where stormwater discharges originate and flow from the industrial facility to the point of discharge into receiving waters. (Example: Where stormwater flows into a ditch, swale, or gully that leads to receiving waters and where listed species (such as listed amphibians) are found in the ditch, swale, or gully.)
- The areas where stormwater from industrial activities discharge into receiving waters and the areas in the immediate vicinity of the point of discharge. (Example: Where stormwater from industrial activities discharges into a stream segment that is known to harbor listed aquatic species.)
- The areas where stormwater controls will be constructed and operated, including any areas where stormwater flows to and from the stormwater controls. (Example: Where a stormwater retention pond would be built.)
- The areas upstream and/or downstream from the stormwater discharge into a stream segment that may be affected by these discharges. (Example: Where sediment discharged to a receiving stream settles downstream and impacts a breeding area of a listed aquatic species.)

Antidegradation Policy or Antidegradation Requirements – the water quality standards regulation that requires States and Tribes to establish a three-tiered antidegradation program:

1. Tier 1 maintains and protects existing uses and water quality conditions necessary to support such uses. An existing use can be established by demonstrating that fishing, swimming, or other uses have actually occurred since November 28, 1975, or that the water quality is suitable to allow such uses to occur. Where an existing use is established, it must be protected even if it is not listed in the water quality standards as a designated use. Tier 1 requirements are applicable to all surface waters.
2. Tier 2 maintains and protects "high quality" waters -- water bodies where existing conditions are better than necessary to support CWA § 101(a)(2) "fishable/swimmable" uses. Water quality can be lowered in such waters. However, state and tribal Tier 2 programs identify procedures that must be followed and questions that must be answered before a reduction in water quality can be allowed. In no case may water quality be lowered to a level which would interfere with existing or designated uses.
3. Tier 3 maintains and protects water quality in outstanding national resource waters (ONRWs). Except for certain temporary changes, water quality cannot be lowered in such waters. ONRWs generally include the highest quality waters of the United States. However, the ONRW classification also offers special protection for waters of exceptional ecological significance, i.e., those which are important, unique, or sensitive ecologically. Decisions regarding which water bodies qualify to be ONRWs are made by States and authorized Indian Tribes.

Arid Areas – areas where annual rainfall averages from 0 to 10 inches.

Best Available Technology Economically Achievable (BAT) – defined in CWA section 304(b)(2).

Best Conventional Pollutant Control Technology (BCT) – defined in CWA section 304(b)(4).

Best Practicable Control Technology Currently Available (BPT) – defined in CWA section 304(b)(1).

Bypass – the intentional diversion of waste streams from any portion of a treatment facility. See 40 CFR 122.41(m)(1)(i).

CERCLA Site (i.e., Superfund Site) – for the purposes of this permit, a site as defined in Section 101(9) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601(9), that is undergoing a remedial investigation and feasibility study, or for which a Record of Decision for remedial action has been issued in accordance with the National Contingency Plan, 40 CFR Part 300.

Co-located Industrial Activities – any industrial activities, excluding your primary industrial activity(ies), located on-site that are defined by the stormwater regulations at 122.26(b)(14)(i)- and (xi). An activity at a facility is not considered co-located if the activity, when considered separately, does not meet the description of a category of industrial activity covered by the stormwater regulations or identified by the SIC code list in Appendix D.

Confidential Business Information (CBI) – see 40 CFR Part 2 for relevant definitions of CBI: <http://www.gpo.gov/fdsys/pkg/CFR-2013-title40-vol1/pdf/CFR-2013-title40-vol1-part2-subpartB.pdf>.

Control Measures – refers to any stormwater control or other method (including narrative effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the United States.

Corrective Action – for the purposes of the permit, any action taken, or required to be taken, to repair, modify, or replace any stormwater control used at the site; (2) clean up and dispose of spills, releases, or other deposits found on the site; and (3) remedy a permit violation.

Critical Habitat – as defined in the Endangered Species Act at 16 U.S.C. 1531 for a threatened or endangered species, (i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 4 of the Endangered Species Act, on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 4 of the Endangered Species Act, upon a determination by the Secretary that such areas are essential for the conservation of the species.

Director – a Regional Administrator of the Environmental Protection Agency or an authorized representative. See 40 CFR 122.2.

Discharge – when used without qualification, means the "discharge of a pollutant." See 40 CFR 122.2.

Discharge of a Pollutant – any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source," or any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. See 40 CFR 122.2.

Discharge Point – for the purposes of this permit, the location where collected and concentrated stormwater flows are discharged from the facility such that the first receiving waterbody into which the discharge flows, either directly or through a separate storm sewer system, is a water of the U.S.

Discharge-Related Activity – activities that cause, contribute to, or result in stormwater and allowable non-stormwater point source discharges, and measures such as the siting, construction and operation of stormwater controls to control, reduce, or prevent pollution in the discharges.

Discharge to an Impaired Water – for the purposes of this permit, a discharge to an impaired water occurs if the first water of the U.S. to which you discharge is identified by a state, tribe, or EPA as not meeting an applicable water quality standard, and requires development of a total maximum daily load (TMDL) (pursuant to Section 303(d) of the Clean Water Act), or is addressed by an EPA-approved or established TMDL, or is not in either of the above categories but the waterbody is covered by pollution control requirements that meet the requirements of 40 CFR 130.7(b)(1). For discharges that enter a separate storm sewer system prior to discharge, the water of the U.S. to which you discharge is the waterbody that receives the stormwater discharge from the storm sewer system.

Drought-Stricken Area – for the purposes of this permit, an area in which the National Oceanic and Atmospheric Administration's U.S. Seasonal Drought Outlook indicates for the period that any of the following conditions are likely: (1) "Drought to persist or intensify", (2) "Drought ongoing, some improvement", (3) "Drought likely to improve, impacts ease", or (4) "Drought development likely". See

http://www.cpc.ncep.noaa.gov/products/expert_assessment/season_drought.gif.

Effective Operating Condition – for the purposes of this permit, a stormwater control is kept in effective operating condition if it has been implemented and maintained in such a manner that it is working as designed to minimize pollutant discharges.

Effluent Limitations – for the purposes of this permit, any of the Part 2 requirements.

Effluent Limitations Guideline (ELG) – defined in 40 CFR § 122.2 as a regulation published by the Administrator under section 304(b) of CWA to adopt or revise effluent limitations.

Eligible – for the purposes of this permit, refers to stormwater and allowable non-stormwater discharges that are authorized for coverage under this general permit.

Endangered Species – defined in the Endangered Species Act at 16 U.S.C. 1531 as any species which is in danger of extinction throughout all or a significant portion of its range other than a species of the Class Insecta determined by the Secretary to constitute a pest whose protection under the provisions of this Act would present an overwhelming and overriding risk to man.

Existing Discharger – an operator applying for coverage under this permit for discharges authorized previously under an NPDES general or individual permit.

Facility or Activity – any NPDES "point source" (including land or appurtenances thereto) that is subject to regulation under the NPDES program. See 40 CFR 122.2.

Feasible – for the purposes of this permit, feasible means technologically possible and economically practicable and achievable in light of best industry practices. EPA notes that it does not intend for any permit requirement to conflict with state water rights law.

Federal Operator – an entity that meets the definition of “Operator” in this permit and is either any department, agency or instrumentality of the executive, legislative, and judicial branches of the Federal government of the United States, or another entity, such as a private contractor, operating for any such department, agency, or instrumentality.

Green Infrastructure – the range of measures that use plant or soil systems, permeable pavement or other permeable surfaces or substrates, stormwater harvest and reuse, or landscaping to store, infiltrate, or evapotranspire stormwater and reduce flows to sewer systems or to surface waters. See Section 502 of the Federal Water Pollution Control Act (33 U.S.C. 1362).

Hazardous Waste – for the purposes of this permit, any liquid, solid, or contained gas that contain properties that are dangerous or potentially harmful to human health or the environment. See also 40 CFR §261.2.

Hazardous Substance – defined in CERCLA section 101(14) to include: a) any substance designated pursuant to the CWA section 311(b)(2)(A); b) any element, compound, mixture, solution or substance designated pursuant to section 102 of CERCLA; c) any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Resource Conservation and Recovery Act (RCRA); d) any toxic pollutant listed under CWA section 307(a); e) any hazardous air pollutant listed under section 112 of the Clean Air Act; and f) any imminently hazardous chemical substance or mixture with respect to which the Administrator has taken action pursuant to section 7 of the Toxic Substances Control Act. See 40 CFR 302.4 for the list of such hazardous substances.

Historic Property – as defined in the National Historic Preservation Act regulations means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

Impaired Water (or “Water Quality Impaired Water” or “Water Quality Limited Segment”) – for the purposes of this permit, waters identified by a state, tribe, or EPA as not meeting an applicable water quality standard, and require development of a total maximum daily load (TMDL) (pursuant to Section 303(d) of the CWA), or are addressed by an EPA-approved or established TMDL, or are covered by pollution controls requirements that meet the requirements of 40 FR 130.7(b)(1). For discharges that enter a separate storm sewer system prior to discharge, the first water of the U.S. to which you discharge is the waterbody that receives the stormwater discharge from the storm sewer system.

Indian Country or Indian Country Lands – defined at 40 CFR 122.2 as:

1. All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and including rights-of-way running through the reservation;
2. All dependent Indian communities within the borders of the United States, whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a State: and
3. All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same. This definition includes all land held in trust for an Indian tribe. (18 U.S.C. 1151)

Infeasible – for the purposes of this permit, infeasible means not technologically possible or not economically practicable and achievable in light of best industry practices. EPA notes that it does not intend for any permit requirement to conflict with state water rights law.

Industrial Activity – the 10 categories of industrial activities included in the definition of “stormwater discharges associated with industrial activity” as defined in 40 CFR 122.26(b)(14)(i)- and (xi).

Industrial Stormwater – stormwater runoff from industrial activity.

Measurable Storm Event – a precipitation event that results in a measurable amount of precipitation (i.e., a storm event that results in an actual discharge) and that follows the preceding storm event by at least 72 hours (3-days). The 72-hour storm interval does not apply if you document that less than a 72-hour interval is representative for local storm events.

Minimize – for the purposes of this permit, minimize means to reduce and/or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer (MS4) – defined at 40 CFR §122.26(b)(8) as a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

1. Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;
2. Designed or used for collecting or conveying stormwater;
3. Which is not a combined sewer; and
4. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2. See 40 CFR 122.26(b)(4) and (b)(7).

National Pollutant Discharge Elimination System (NPDES) – defined at 40 CFR §122.2 as the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of CWA. The term includes an ‘approved program.’

New Discharger – a facility from which there is or may be a discharge, that did not commence the discharge of pollutants at a particular site prior to August 13, 1979, which is not a new source, and which has never received a finally effective NPDES permit for discharges at that site. See 40 CFR 122.2.

New Source – any building, structure, facility, or installation from which there is or may be a “discharge of pollutants,” the construction of which commenced:

- after promulgation of standards of performance under section 306 of the CWA which are applicable to such source, or

- after proposal of standards of performance in accordance with section 306 of the CWA which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal. See 40 CFR 122.2.

New Source Performance Standards (NSPS) – technology-based standards for facilities that qualify as new sources under 40 CFR 122.2 and 40 CFR 122.29.

No Exposure – all industrial materials or activities protected by a storm-resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. See 40 CFR 122.26(g).

Non-Stormwater Discharges – discharges that do not originate from storm events. They can include, but are not limited to, discharges of process water, air conditioner condensate, non-contact cooling water, pavement wash water, external building washdown, irrigation water, or uncontaminated ground water or spring water.

Notice of Intent (NOI) – the form (electronic or paper) required for authorization of coverage under the Multi-Sector General Permit.

Notice of Termination (NOT) – the form (electronic or paper) required for terminating coverage under the Multi-Sector General Permit.

Operator – any entity with a stormwater discharge associated with industrial activity that meets either of the following two criteria:

1. The entity has operational control over industrial activities, including the ability to make modifications to those activities; or
2. The entity has day-to-day operational control of activities at a facility necessary to ensure compliance with the permit (e.g., the entity is authorized to direct workers at a facility to carry out activities required by the permit).

Outfall – see “Discharge Point.”

Permitting Authority – for the purposes of this permit, EPA, a Regional Administrator of EPA, or an authorized representative.

Person – an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof. See 40 CFR 122.2.

Point Source – any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff. See 40 CFR 122.2.

Pollutant – defined at 40 CFR §122.2. A partial listing from this definition includes: dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal and agricultural waste discharged into water. See 40 CFR 122.2.

Pollutant of Concern – a pollutant which causes or contributes to a violation of a water quality standard, including a pollutant which is identified as causing an impairment in a state's 303(d) list.

Primary Industrial Activity – includes any activities performed on-site which are (1) identified by the facility's primary SIC code and included in the descriptions of 122.26(b)(14)(ii), (iii), (vi), (viii),

or (xi); or (2) included in the narrative descriptions of 122.26(b)(14)(i), (iv), (v), (vii), or (ix). [For co-located activities covered by multiple SIC codes, it is recommended that the primary industrial determination be based on the value of receipts or revenues or, if such information is not available for a particular facility, the number of employees or production rate for each process may be compared. The operation that generates the most revenue or employs the most personnel is the operation in which the facility is primarily engaged. In situations where the vast majority of on-site activity falls within one SIC code, that activity may be the primary industrial activity.] Narrative descriptions in 40 CFR 122.26(b)(14) identified above include: (i) activities subject to stormwater effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards; (iv) hazardous waste treatment storage, or disposal facilities including those that are operating under interim status or a permit under subtitle C of the Resource Conservation and Recovery Act (RCRA); (v) landfills, land application sites and open dumps that receive or have received industrial wastes; (vii) steam electric power generating facilities; and (ix) sewage treatment works with a design flow of 1.0 mgd or more.

Qualified Personnel – qualified personnel are those who are knowledgeable in the principles and practices of industrial stormwater controls and pollution prevention, and who possess the education and ability to assess conditions at the industrial facility that could impact stormwater quality, and the education and ability to assess the effectiveness of stormwater controls selected and installed to meet the requirements of the permit.

Reportable Quantity Release – a release of a hazardous substance at or above the established legal threshold that requires emergency notification. Refer to 40 CFR Parts 110, 117, and 302 for complete definitions and reportable quantities for which notification is required.

Restricted Information – for the purposes of this permit, information that is privileged or that is otherwise protected from disclosure pursuant to applicable statutes, Executive Orders, or regulations. Such information includes, but is not limited to: classified national security information, protected critical infrastructure information, sensitive security information, and proprietary business information.

Runoff Coefficient – the fraction of total rainfall that will appear at the conveyance as runoff. See 40 CFR 122.26(b)(11).

Run-On – sources of stormwater that drain from land located upslope or upstream from the regulated facility in question.

Saline Water or Saltwater – for the purposes of this permit, a waterbody with salinity that is equal to or exceeds 10 parts per thousand 95 percent or more of the time, unless otherwise defined as a coastal or marine water by the applicable state or tribal surface water quality standards.

Semi-Arid Areas – areas where annual rainfall averages from 10 to 20 inches.

Significant Materials – includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the facility is required to report pursuant to section 313 of Title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges. See 40 CFR 122.26(b)(12).

Special Aquatic Sites – sites identified in 40 CFR 230 Subpart E. These are geographic areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values. These areas are generally recognized

as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of a region.

Spill – for the purpose of this permit, the release of a hazardous or toxic substance from its container or containment.

Stormwater – stormwater runoff, snow melt runoff, and surface runoff and drainage. See 40 CFR 122.26(b)(13).

Stormwater Controls – see “Control Measures.”

Stormwater Discharges Associated with Construction Activity – as used in this permit, a discharge of pollutants in stormwater runoff from areas where land-disturbing activities (e.g., clearing, grading, or excavating) occur, or where construction materials or equipment storage or maintenance (e.g., fill piles, borrow areas, concrete truck washout, fueling), or other industrial stormwater directly related to the construction process (e.g., concrete or asphalt batch plants) are located. See 40 CFR 122.26(b)(14)(x) and 40 CFR 122.26(b)(15).

Stormwater Discharges Associated with Industrial Activity – the discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program under Part 122. For the categories of industries identified in this section, the term includes, but is not limited to, stormwater 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 waste waters (as defined at part 401 of this chapter); 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 stormwater. For the purposes of this paragraph, material handling activities include storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final 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 stormwater drained from the above described areas. Industrial facilities include those that are federally, state, or municipally owned or operated that meet the description of the facilities listed in 40 CFR 122.26(b)(14). The term also includes those facilities designated under the provisions of 40 CFR 122.26(a)(1)(v). See 40 CFR 122.26(b)(14).

Stormwater Pollution Prevention Team – the stormwater pollution prevention team is responsible for overseeing development of the SWPPP, any modifications to it, and for implementing and maintaining stormwater control measures and taking corrective actions when required. Each member of the stormwater 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 your SWPPP, and other relevant documents or information that must be kept with the SWPPP. The individuals on the “Stormwater Team” must be identified in the SWPPP.

Storm Event – a precipitation event that results in a measurable amount of precipitation.

Threatened Species – defined in the Endangered Species Act at 16 U.S.C. 1531 as any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Tier 2 Waters – for antidegradation purposes, pursuant to 40 CFR 131.12(a)(2), Tier 2 waters are characterized as having water quality that exceeds the levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water.

Tier 2.5 Waters – for antidegradation purposes, Tier 2.5 waters are those waters designated by States or Tribes as requiring a level of protection equal to and above that given to Tier 2 waters, but less than that given Tier 3 waters. States have special requirements for these waters.

Tier 3 Waters – for antidegradation purposes, pursuant to 40 CFR 131.12(a)(3), Tier 3 waters are identified by states as having high quality waters constituting an Outstanding National Resource Water (ONRW), such as waters of National Parks and State Parks, wildlife refuges, and waters of exceptional recreational or ecological significance.

Total Maximum Daily Loads (TMDLs) – the sum of the individual wasteload allocations (WLAs) for point sources and load allocations (LAs) for nonpoint sources and natural background. If receiving water has only one point source discharger, the TMDL is the sum of that point source WLA plus the LAs for any nonpoint sources of pollution and natural background sources, tributaries, or adjacent segments. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure. (See section 303(d) of the Clean Water Act and 40 CFR 130.2 and 130.7).

Toxic Waste – see “Hazardous Materials.”

Uncontaminated Discharge – a discharge that does not cause or contribute to an exceedance of applicable water quality standards.

Upset – upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond your reasonable control. 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. See 40 CFR 122.41(n)(1).

Water Quality Impaired – see “Impaired Water.”

Water Quality Standards – defined in 40 CFR § 131.3, and are provisions of State or Federal law which consist of a designated use or uses for the waters of the United States, water quality criteria for such waters based upon such uses, and an antidegradation policy to protect high-quality waters. Water quality standards protect the public health or welfare, enhance the quality of water and serve the purposes of the Act.

Waters of the United States – see definition at 40 CFR §122.2.

A.2. ABBREVIATIONS AND ACRONYMS

AIM – Advanced Implementation Measures

BAT – Best Available Technology Economically Achievable

BOD5 – Biochemical Oxygen Demand (5-day test)

BMP – Best Management Practice

BPJ – Best Professional Judgment

CERCLA – Comprehensive Environmental Response, Compensation and Liability Act

CGP – Construction General Permit

CFR – Code of Federal Regulations

COD – Chemical Oxygen Demand

CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 *et seq*)

CWT – Centralized Waste Treatment

DMR – Discharge Monitoring Report

ELG – Effluent Limitations Guideline

EPA – U. S. Environmental Protection Agency

ESA – Endangered Species Act

FWS – U. S. Fish and Wildlife Service

LA – Load Allocations

MGD – Million Gallons per Day

MOS – Margin of Safety

MS4 – Municipal Separate Storm Sewer System

MSGP – Multi-Sector General Permit

NAICS – North American Industry Classification System

NEPA – National Environmental Policy Act

NET – NPDES eReporting Tool

NHPA – National Historic Preservation Act

NMFS – U. S. National Marine Fisheries Service

NOI – Notice of Intent

NOE – No Exposure

NOT – Notice of Termination

NPDES – National Pollutant Discharge Elimination System

NRC – National Response Center

NRHP – National Register of Historic Places

NSPS – New Source Performance Standard

NTU – Nephelometric Turbidity Unit

OMB – U. S. Office of Management and Budget

ORW – Outstanding Resource Water

OSM – U. S. Office of Surface Mining

POTW – Publicly Owned Treatment Works

RCRA – Resource Conservation and Recovery Act

RQ – Reportable Quantity

SARA – Superfund Amendments and Reauthorization Act

SDS – Safety Data Sheet

SHPO – State Historic Preservation Officer

SIC – Standard Industrial Classification

SMCRA – Surface Mining Control and Reclamation Act

SPCC – Spill Prevention, Control, and Countermeasures

SWPPP – Stormwater Pollution Prevention Plan

THPO – Tribal Historic Preservation Officer

TMDL – Total Maximum Daily Load

TSDf – Treatment, Storage, or Disposal Facility

TSS – Total Suspended Solids

USGS – United States Geological Survey

WLA – Wasteload Allocation

WQS – Water Quality Standard

Appendix B - Standard Permit Conditions

Standard permit conditions in Appendix B are consistent with the general permit provisions required under 40 CFR 122.41.

B.1. Duty To Comply.

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

- A. You must comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards, even if the permit has not yet been modified to incorporate the requirement.
- B. Penalties for Violations of Permit Conditions: EPA and other federal agencies are required to adjust their maximum and minimum statutory civil penalty amounts through rulemaking by January 15 each year to account for inflation. EPA's annual rulemaking adjustments, codified in 40 C.F.R. § 19.4, are mandated by the Federal Civil Penalties Inflation Adjustment Act of 1990, as amended through the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015 (28 U.S.C. § 2461 note). As such, the civil penalty amounts below may change in the future due to inflation. See 40 C.F.R. § 19.4 for the most up-to-date civil penalty amounts.

1. Criminal Penalties.

- 1.1. **Negligent Violations.** The CWA provides that any person who negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to criminal penalties of not less than \$2,500 nor more than \$25,000 per day of violation, or imprisonment of not more than one year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation or by imprisonment of not more than two years, or both.
- 1.2. **Knowing Violations.** The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than 6 years, or both.
- 1.3. **Knowing Endangerment.** The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he or she is placing another person in imminent danger of death or serious bodily injury shall upon conviction be subject to a fine of not more than \$250,000 or by imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.

- 1.4. *False Statement.* The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both. The Act further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.
2. *Civil Penalties.* The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act and the Federal Civil Penalties Inflation Adjustment Act of 1990, as amended by Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015 (28 U.S.C. § 2461 note), and codified at 40 CFR § 19.4.
3. *Administrative Penalties.* The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty, as follows
 - 3.1 *Class I Penalty.* Not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act and the Federal Civil Penalties Inflation Adjustment Act of 1990 as amended by the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015 (28 U.S.C. § 2461 note), and codified at 40 CFR § 19.4.
 - 3.2 *Class II Penalty.* Not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act and the Federal Civil Penalties Inflation Adjustment Act of 1990, as amended by the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015 (28 U.S.C. § 2461 note), and codified at 40 CFR § 19.4.

B.2. Duty to Reapply.

If you wish to continue an activity regulated by this permit after the expiration date of this permit, you must apply for and obtain authorization as required by the new permit once EPA issues it.

B.3. Need to Halt or Reduce Activity Not a Defense.

It shall not be a defense for you 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.

B.4. Duty to Mitigate.

You must 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.

B.5. Proper Operation and Maintenance.

You must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by you 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 backup or auxiliary facilities or similar systems which are installed by you only when the operation is necessary to achieve compliance with the conditions of this permit.

B.6. Permit Actions.

This permit may be modified, revoked and reissued, or terminated for cause. Your filing of a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

B.7. Property Rights.

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

B.8. Duty to Provide Information.

You must furnish to EPA or an authorized representative (including an authorized contractor acting as a representative of EPA), within a reasonable time, any information which EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. You must also furnish to EPA or an authorized representative upon request, copies of records required to be kept by this permit.

B.9. Inspection and Entry.

You must allow EPA or an authorized representative (including an authorized contractor acting as a representative of EPA), upon presentation of credentials and other documents as may be required by law, to:

- A. Enter upon your premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- C. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- D. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

B.10. Monitoring and Records.

- A. Samples and measurements taken for the purpose of monitoring must be representative of the volume and nature of the monitored activity.
- B. You must retain records of all monitoring information, including all calibration 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 the permit expires or the date the permittee's authorization is terminated. This period may be extended by request of EPA at any time.
- C. Records of monitoring information must include:

1. The date, exact place, and time of sampling or measurements;
 2. The individual(s) who performed the sampling or measurements;
 3. The date(s) analyses were performed
 4. The individual(s) who performed the analyses;
 5. The analytical techniques or methods used; and
 6. The results of such analyses.
- D. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in the permit.
- E. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

B.11. Signatory Requirements.

- A. NOIs, NOTs, and NOEs must be signed as follows:
1. For a corporation: By a responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means: (i) 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 (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 2. For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or
 3. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).
- B. Your SWPPP, including changes to your SWPPP to document any corrective actions or advanced implementation measures taken as required by Part 5, and any other compliance documentation required under this permit, including the Annual Report, DMRs, and inspection reports, must be signed by a person described in Appendix B, Subsection 11.A above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described in Appendix B, Subsection 11.A;
 2. The authorization specifies 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 thus be either a named individual or any individual occupying a named position); and
 3. The signed and dated written authorization is included in the SWPPP. A copy must be submitted to EPA, if requested.
- C. All other changes to your SWPPP, and other compliance documentation required under Part 5.3, must be signed and dated by the person preparing the change or documentation.
- D. Changes to Authorization. If an authorization under this permit is no longer accurate because the industrial facility has been purchased by a different entity, a new NOI satisfying the requirements of Part 1.3 must be submitted to EPA. See Table 1-2 in Part 1.3.3 of the permit. However, if the only change that is occurring is a change in contact information or a change in the facility's address, the operator need only make a modification to the existing NOI submitted for authorization.
- E. Any person signing documents in accordance with Appendix B, Subsections 11.A or 11.B above must include the following certification:
- "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained 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."
- F. For persons signing documents electronically, in addition to meeting other applicable requirements in Appendix I, Subsection B.11, such signatures must be legally dependable with no less evidentiary value than their paperequivalent.
- G. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

B.12. Reporting Requirements.

- A. Planned changes. You must give notice to EPA as soon as possible, but no fewer than 30 days, of any planned physical alterations or additions to the permitted facility. Notice is required only when:
1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1).

- B. Anticipated noncompliance. You must give advance notice to EPA of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- C. Transfers. This permit is not transferable to any person except after notice to EPA. Where a facility wants to change the name of the permittee, the original permittee (the first owner or operators) must submit a Notice of Termination pursuant to Part 1.4. The new owner or operator must submit a Notice of Intent in accordance with Part 1.3.3 and Table 1-2. See also requirements in Appendix B, Subsections 11.B and 11.D.
- D. Monitoring reports. Monitoring results must be reported at the intervals specified elsewhere in this permit.
 - 1. Pursuant to Part 7.1, all monitoring data collected pursuant to Part 4 must be submitted to EPA using EPA's online DMR system (<http://www.epa.gov/netdmr/>).
 - 2. If you monitor any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or as specified in the permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the DMR.
 - 3. Calculations for all limitations which require averaging of measurements must use an arithmetic mean. For averaging purposes, use a value of zero for any individual sample parameter, which is determined to be less than the method detection limit. For sample values that fall between the method detection level and the quantitation limit (i.e., a confirmed detection but below the level that can be reliably quantified), use a value halfway between zero and the quantitation limit.
- E. Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date.
- F. Twenty-four hour reporting.
 - 1. You must report any noncompliance which may endanger health or the environment. Any information must be provided orally within 24 hours from the time you become aware of the circumstances. A written submission must also be provided within five days of the time you become aware of the circumstances. The written submission must contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 - 2. The following shall be included as information which must be reported within 24 hours under this paragraph.
 - a. Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR 122.41(m)(3)(ii))
 - b. Any upset which exceeds any effluent limitation in the permit
 - c. Violation of a maximum daily discharge limit for any numeric effluent limitation. (See 40 CFR 122.44(g).)
 - 3. EPA may waive the written report on a case-by-case basis for reports under Appendix B, Subsection 12.F.2 if the oral report has been received within 24 hours.

- G. Other noncompliance. You must report all instances of noncompliance not reported under Appendix B, Subsections 12.D, 12.E, and 12.F, at the time monitoring reports are submitted. The reports must contain the information listed in Appendix B, Subsection 12.F.
- H. Other information. Where you become aware that you failed to submit any relevant facts in your NOI, or submitted incorrect information in your NOI or in any report to the Permitting Authority, you must promptly submit such facts or information.

B.13. Bypass.**A. Definitions.**

- 1. Bypass means the intentional diversion of waste streams from any portion of a treatment facility See 40 CFR 122.41(m)(1)(i).
- 2. Severe property damage means substantial physical damage to property, damage to the 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. See 40 CFR 122.41(m)(1)(ii).

B. Bypass not exceeding limitations. You may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Appendix B, Subsections 13.C and 13.D. See 40 CFR 122.41(m)(2).**C. Notice.**

- 1. Anticipated bypass. If you know in advance of the need for a bypass, you must submit prior notice, if possible at least ten days before the date of the bypass. See 40 CFR 122.41(m)(3)(i).
- 2. Unanticipated bypass. You must submit notice of an unanticipated bypass as required in Appendix B, Subsection 12.F (24-hour notice). See 40 CFR 122.41(m)(3)(ii).

D. Prohibition of bypass. See 40 CFR 122.41(m)(4).

- 1. Bypass is prohibited, and EPA may take enforcement action against you for bypass, unless:
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - c. You submitted notices as required under Appendix B, Subsection 13.C.
- 2. EPA may approve an anticipated bypass, after considering its adverse effects, if EPA determines that it will meet the three conditions listed above in Appendix B, Subsection 13.D.1.

B.14. Upset.

- A. Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond your reasonable control. 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. See 40 CFR 122.41(n)(1).
- B. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Appendix B, Subsection 14.C are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. See 40 CFR 122.41(n)(2).
- C. Conditions necessary for a demonstration of upset. See 40 CFR 122.41(n)(3). A permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - 1. An upset occurred and that you can identify the cause(s) of the upset;
 - 2. The permitted facility was at the time being properly operated; and
 - 3. You submitted notice of the upset as required in Appendix B, Subsection 12.F.2.b (24 hour notice).
 - 4. You complied with any remedial measures required under Appendix B, Subsection 4.
- D. Burden of proof. In any enforcement proceeding, you, as the one seeking to establish the occurrence of an upset, have the burden of proof. See 40 CFR 122.41(n)(4).

B.15. Retention of Records.

Copies of the SWPPP and all documentation required by this permit, including records of all data used to complete the NOI to be covered by this permit, must be retained for at least three years from the date that permit coverage expires or is terminated. This period may be extended by request of EPA at any time.

B.16. Reopener Clause.

- A. Procedures for modification or revocation. Permit modification or revocation will be conducted according to 40 CFR §122.62, §122.63, §122.64 and §124.5. This includes reasons such as new information which was not available at the time of permit issuance and would have justified the application of different permit conditions at the time of issuance, including but not limited to any Reasonable and Prudent Alternatives or Reasonable and Prudent Measures developed in Endangered Species Act consultation, and/or future monitoring results.
- B. Water quality protection. If there is evidence indicating that the stormwater discharges authorized by this permit cause, have the reasonable potential to cause or contribute to an excursion above any applicable water quality standard, you may be required to obtain an individual permit, or the permit may be modified to include different limitations and/or requirements.
- C. Timing of permit modification. EPA may elect to modify the permit prior to its expiration (rather than waiting for the new permit cycle) to comply with any new statutory or regulatory requirements, such as for effluent limitation guidelines that may be promulgated in the course of the current permit cycle.

Appendix C - Areas Eligible for Permit Coverage

EPA can only provide permit coverage in these areas and for classes of discharges that are outside the scope of a state's NPDES program authorization.

C.1 EPA Region 1: Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, Vermont.

This permit offers NPDES permit coverage for stormwater discharges associated with industrial activity from the following areas in EPA Region 1:

Master Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
CTR05I000	Indian Country within the State of Connecticut
MAR050000	Commonwealth of Massachusetts, except Indian country
MAR05I000	Indian country within the Commonwealth of Massachusetts
NHR050000	State of New Hampshire
RIR05I000	Indian country within the State of Rhode Island
VTR05F000	Areas in the State of Vermont subject to industrial activity by a Federal Operator

For stormwater discharges in EPA Region 1 outside the areas of coverage identified above, please contact your state NPDES permitting authority to obtain coverage under a state-issued NPDES permit.

C.2 EPA Region 2: New Jersey, New York, Puerto Rico, Virgin Islands.

This permit offers NPDES permit coverage for stormwater discharges associated with industrial activity from the following areas in EPA Region 2:

Master Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
PRR050000	Commonwealth of Puerto Rico
NYR05I000	Indian country within the State of New York, except the lands of the St. Regis Mohawk Tribe

For stormwater discharges in EPA Region 2 outside the areas of coverage identified above, please contact your state NPDES permitting authority to obtain coverage under a state-issued NPDES permit.

C.3 EPA Region 3: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia.

This permit offers NPDES permit coverage for stormwater discharges associated with industrial activity from the following areas in EPA Region 3:

Master Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
DCR050000	District of Columbia
DER05F000	Areas in the State of Delaware subject to industrial activity by a Federal Operator
VAR05I000	Indian country within the State of Virginia

For stormwater discharges in EPA Region 3 outside the areas of coverage identified above, please contact your state NPDES permitting authority to obtain coverage under a state-issued NPDES permit.

C.4 EPA Region 4: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee.

This permit offers NPDES permit coverage for stormwater discharges associated with industrial activity from the following areas in EPA Region 4:

Master Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
ALR05I000	Indian country within the State of Alabama
FLR05I000	Indian country within the State of Florida (except for facilities on the Miccosukee and Seminole Tribe lands, contact EPA Region 4 for an individual permit application)
MSR05I000	Indian country within the State of Mississippi
NCR05I000	Indian country within the State of North Carolina
SCR05I000	Indian country within the State of South Carolina

For stormwater discharges in EPA Region 4 outside the areas of coverage identified above, please contact your state NPDES permitting authority to obtain coverage under a state-issued NPDES permit.

C.5 EPA Region 5: Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin.

This permit offers NPDES permit coverage for stormwater discharges associated with industrial activity from the following areas in EPA Region 5:

Master Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
MIR05I000	Indian country within the State of Michigan
MNR05I000	Indian country within the State of Minnesota
WIR05I000	Indian country within the State of Wisconsin (except for facilities on Sokaogon Chippewa Community lands and Bad River Band of Lake Superior Tribe of Chippewa Indians lands, see EPA Region 5 for an individual permit application).

For stormwater discharges in EPA Region 5 outside the areas of coverage identified above, please contact your state NPDES permitting authority to obtain coverage under a state-issued NPDES permit.

C.6 EPA Region 6: Arkansas, Louisiana, Oklahoma, Texas, and New Mexico (except see Region 9 for Navajo lands, and see Region 8 for Ute Mountain Reservation lands).

This permit offers NPDES permit coverage for stormwater discharges associated with industrial activity from the following areas in EPA Region 6:

Master Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
LAR05I000	Indian country within the State of Louisiana
NMR050000	The State of New Mexico, except Indian country

Master Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
NMR05I000	Indian country within the State of New Mexico, except Ute Mountain Reservation lands that are covered under Colorado permit COR05I000 and Navajo Reservation lands that are covered under Arizona permit AZR05I000
OKR05I000	Indian country within the State of Oklahoma
OKR05F000	Facilities in the State of Oklahoma not under the jurisdiction of the Oklahoma Department of Environmental Quality or the Oklahoma Department of Agriculture, Food and Forestry, except those on Indian Country. EPA jurisdiction facilities include SIC Codes 1311, 1381, 1382, 1389, and 5171.
TXR05F000	Facilities in the State of Texas not under the jurisdiction of the Texas Commission on Environmental Quality, except those on Indian Country. EPA-jurisdiction facilities include SIC Codes 1311, 1321, 1381, 1382, 1389, and 5171 (other than oil field service company "home base" facilities).
TXR05I000	Indian country within the State of Texas

For stormwater discharges in EPA Region 6 outside the areas of coverage identified above, please contact your state NPDES permitting authority to obtain coverage under a state-issued NPDES permit.

C.7 EPA Region 7: Iowa, Kansas, Missouri, Nebraska (except see Region 8 for Pine Ridge Reservation Lands).

This permit offer NPDES permit coverage for stormwater discharges associated with industrial activity from the following areas in EPA Region 7:

Master Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
IAR05I000	Indian country within the State of Iowa
KSR05I000	Indian country within the State of Kansas
NER05I000	Indian country within the State of Nebraska, except Pine Ridge Reservation lands (see Region 8)

For stormwater discharges in EPA Region 7 outside the areas of coverage identified above, please contact your state NPDES permitting authority to obtain coverage under a state-issued NPDES permit.

C.8 EPA Region 8: Colorado, Montana, North Dakota, South Dakota, Wyoming, Utah (except see Region 9 for Goshute Reservation and Navajo Reservation Lands), the Ute Mountain Reservation in NM, and the Pine Ridge Reservation in NE.

This permit offers NPDES permit coverage for stormwater discharges associated with industrial activity from the following areas in EPA Region 8:

Master Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
COR05F000	Areas in the State of Colorado, except those located on Indian country, subject to industrial activity by a Federal Operator

Master Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
COR05I000	Indian country within the State of Colorado, as well as the portion of the Ute Mountain Reservation located in New Mexico
MTR05I000	Indian country within the State of Montana
NDR05I000	Indian country within the State of North Dakota, as well as that portion of the Standing Rock Reservation located in South Dakota (except for the portion of the lands within the former boundaries of the Lake Traverse Reservation, which is covered under South Dakota permit SDR05I000 listed below)
SDR05I000	Indian country within the State of South Dakota, as well as the portion of the Pine Ridge Reservation located in Nebraska and the portion of the lands within the former boundaries of the Lake Traverse Reservation located in North Dakota (except for the Standing Rock Reservation, which is covered under North Dakota permit NDR05I000 listed above)
UTR05I000	Indian country within the State of Utah, except Goshute and Navajo Reservation lands (see Region 9)
WYR05I000	Indian country within the State of Wyoming

For stormwater discharges in EPA Region 8 outside the areas of coverage identified above, please contact your state NPDES permitting authority to obtain coverage under a state-issued NPDES permit.

C.9 EPA Region 9: California, Hawaii, Nevada, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, the Confederated Tribes of the Goshute Reservation in Utah and Nevada, Indian Country within the State of Arizona including the Navajo Reservation in Utah and New Mexico and Arizona, the Duck Valley Reservation in Idaho, and the Fort McDermitt Reservation in Oregon.

This permit offers NPDES permit coverage for stormwater discharges associated with industrial activity from the following areas in EPA Region 9:

Master Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
ASR050000	American Samoa
AZR05I000	Indian country within the State of Arizona, including Navajo Reservation lands in New Mexico and Utah
CAR05I000	Indian country within the State of California (facilities on the Hoopa Valley Reservation must contact EPA Region 9 for an individual permit)
GUR050000	Island of Guam
JAR050000	Johnston Atoll
MWR050000	Midway Island and Wake Island
MPR050000	Commonwealth of the Northern Mariana Islands
NVR05I000	Indian country within the State of Nevada, including the Duck Valley Reservation in Idaho, the Fort McDermitt Reservation in Oregon and the Confederated Tribes of the Goshute Reservation in Utah

For stormwater discharges in EPA Region 9 outside the areas of coverage identified above, please contact your state NPDES permitting authority to obtain coverage under a state-issued NPDES permit.

C.10 Region 10: Alaska, Idaho (except see Region 9 for Duck Valley Reservation lands), Oregon (except see Region 9 for Fort McDermitt Reservation), Washington.

This permit offers NPDES permit coverage for stormwater discharges associated with industrial activity from the following areas in EPA Region 10:

Master Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
AKR05F000	Denali National Park and Preserve
AKR05I000	Indian country lands as defined in 18 U.S.C. 1151 within the State of Alaska
IDR050000	The State of Idaho, except Indian country lands
IDR05I000	Indian country lands within the State of Idaho, except Duck Valley Reservation lands, which are covered under Nevada permit NVR05I000
ORR05I000	Indian country lands within the State of Oregon, except Fort McDermitt Reservation lands, which are covered under Nevada permit NVR05I000
WAR05I000	Indian country lands within the State of Washington (facilities on the Swinomish Reservation must contact EPA Region 10 for an individual permit)
WAR05F000	Areas in the State of Washington, except those located on Indian country lands, subject to industrial activity by a Federal Operator

For stormwater discharges in EPA Region 10 outside the areas of coverage identified above, please contact your state NPDES permitting authority to obtain coverage under a state-issued NPDES permit.

Appendix D - Facilities and Activities Covered

Your permit eligibility is limited to discharges from facilities in the “sectors” of industrial activity summarized in Table D-1. These sector descriptions are based on Standard Industrial Classification (SIC) Codes and Industrial Activity Codes. References to “sectors” in this permit (e.g., sector-specific monitoring requirements) refer to these groupings.

Table D-1. Sectors of Industrial Activity Covered by This Permit		
Subsector (May be subject to more than one)	SIC Code or Activity Code ¹	Activity Represented
SECTOR A: TIMBER PRODUCTS		
A1	2421	General Sawmills and Planing Mills
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
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
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

Table D-1. Sectors of Industrial Activity Covered by This Permit		
Subsector (May be subject to more than one)	SIC Code or Activity Code ¹	Activity Represented
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
D2	2992, 2999	Miscellaneous Products of Petroleum and Coal
SECTOR E: GLASS, CLAY, CEMENT, CONCRETE, AND GYPSUM PRODUCTS		
E1	3251-3259	Structural Clay Products
	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
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

Table D-1. Sectors of Industrial Activity Covered by This Permit		
Subsector (May be subject to more than one)	SIC Code or Activity Code ¹	Activity Represented
SECTOR G: METAL MINING (ORE MINING AND DRESSING)		
G1	1021	Copper Ore and Mining Dressing Facilities
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
SECTOR I: OIL AND GAS EXTRACTION		
I1	1311	Crude Petroleum and Natural Gas
	1321	Natural Gas Liquids
	1381-1389	Oil and Gas Field Services
SECTOR J: MINERAL MINING AND DRESSING		
J1	1442	Construction Sand and Gravel
	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
SECTOR L: LANDFILLS, LAND APPLICATION SITES, AND OPEN DUMPS		
L1	LF	All Landfill, Land Application Sites and Open Dumps
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

Table D-1. Sectors of Industrial Activity Covered by This Permit		
Subsector (May be subject to more than one)	SIC Code or Activity Code ¹	Activity Represented
SECTOR N: SCRAP RECYCLING FACILITIES		
N1	5093	Scrap Recycling and Waste Recycling Facilities except Source-Separated Recycling
N2	5093	Source-separated Recycling Facility
SECTOR O: STEAM ELECTRIC GENERATING FACILITIES		
O1	SE	Steam Electric Generating Facilities, including coal handling sites
SECTOR P: LAND TRANSPORTATION AND WAREHOUSING		
P1	4011, 4013	Railroad Transportation
	4111-4173	Local and Highway Passenger Transportation
	4212-4231	Motor Freight Transportation and Warehousing
	4311	United States Postal Service
	5171	Petroleum Bulk Stations and Terminals
SECTOR Q: WATER TRANSPORTATION		
Q1	4412-4499	Water Transportation Facilities
SECTOR R: SHIP AND BOAT BUILDING AND REPAIRING YARDS		
R1	3731, 3732	Ship and Boat Building or Repairing Yards
SECTOR S: AIR TRANSPORTATION FACILITIES		
S1	4512-4581	Air Transportation Facilities
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
SECTOR U: FOOD AND KINDRED PRODUCTS		
U1	2041-2048	Grain Mill Products
U2	2074-2079	Fats and Oils Products
U3	2011-2015	Meat Products
	2021-2026	Dairy Products

Table D-1. Sectors of Industrial Activity Covered by This Permit		
Subsector (May be subject to more than one)	SIC Code or Activity Code ¹	Activity Represented
	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
	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
	2511-2599	Furniture and Fixtures
SECTOR X: PRINTING AND PUBLISHING		
X1	2711-2796	Printing, Publishing, and Allied Industries
SECTOR Y: RUBBER, MISCELLANEOUS PLASTIC PRODUCTS, AND MISCELLANEOUS MANUFACTURING INDUSTRIES		
Y1	3011	Tires and Inner Tubes
	3021	Rubber and Plastics Footwear
	3052, 3053	Gaskets, Packing and Sealing Devices, and Rubber and Plastic Hoses and Belting
	3061, 3069	Fabricated Rubber Products, Not Elsewhere Classified
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

Table D-1. Sectors of Industrial Activity Covered by This Permit		
Subsector (May be subject to more than one)	SIC Code or Activity Code ¹	Activity Represented
SECTOR Z: LEATHER TANNING AND FINISHING		
Z1	3111	Leather Tanning and Finishing
SECTOR AA: FABRICATED METAL PRODUCTS		
AA1	3411-3499 (except 3479)	Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services
	3911-3915	Jewelry, Silverware, and Plated Ware
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)
	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
	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 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.	

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 www.census.gov/epcd/www/naics.html or in paper form from various locations in the document titled *Handbook of Standard Industrial Classifications*, Office of Management and Budget, 1987.

Appendix E - Procedures Relating to Endangered Species Protection

E.1 Assessing the Effects of Your Discharges and Discharge-Related Activities

In accordance with Part 1.1.4, you must follow the procedures in this appendix to determine which of the eligibility criteria (i.e., criterion A - E) you qualify under, if any, with respect to the protection of threatened or endangered species listed, and "critical habitat" designated, under the federal Endangered Species Act (ESA). If you do not meet one of these criteria, you are not eligible for coverage under this permit.

The procedures in this appendix will help you assess the potential effects of applicable stormwater discharges, discharge-related activities, and authorized non-stormwater discharges on federally listed threatened and endangered species and their designated critical habitat. In accordance with Part 6.2.6.1 of this permit, you must keep any documentation that supports your eligibility criteria determination, including the completed [Criterion Selection Worksheet](#) in Part E.4 of this appendix, with your Stormwater Pollution Prevention Plan (SWPPP).

You must complete your eligibility determination outlined in the Endangered Species Protection section of the Notice of Intent (NOI) in the NPDES eReporting Tool (NeT-MSGP) and provide all information as required on your NOI that supports the Part 1.1.4 eligibility criterion you qualify under. Note that if you have determined that you may be eligible under Criterion C3 or Criterion F, you must complete additional questions in the Endangered Species Protection section of the NOI in NeT-MSGP, unless the EPA Regional Office grants you a waiver from electronic reporting, in which case you must submit a completed [Criterion C3 Eligibility Form](#) to EPA a minimum of 30 days prior to submitting your NOI for permit coverage.

While coordination between you and the U.S. Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service (NMFS)(together, the "Services") is not necessarily required in all cases, EPA encourages you to coordinate with the Services, to document that coordination, and to do so early in the planning process prior to submitting your NOI.

When evaluating the potential effects of your activities, you must consider effects to listed species or critical habitats within the "action area" of your industrial activity, as identified by the [USFWS IPaC](#) and/or the [NOAA Species Directory](#) (see Part E.4 of this appendix). Action area is defined in Appendix A of the MSGP and below:

Action Area – all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action. See 50 CFR 402. For the purposes of this permit and for application of Endangered Species Act requirements, the following areas are included in the definition of action area:

- The areas where stormwater discharges originate and flow from the industrial facility to the point of discharge into receiving waters. (Example: Where stormwater flows into a ditch, swale, or gully that leads to receiving waters and where listed species (such as listed amphibians) are found in the ditch, swale, or gully.)
- The areas where stormwater from industrial activities discharge into receiving waters and the areas in the immediate vicinity of the point of discharge. (Example: Where stormwater from industrial activities discharges into a stream segment that is known to harbor listed aquatic species.)

- The areas where stormwater controls will be constructed and operated, including any areas where stormwater flows to and from the stormwater controls. (Example: Where a stormwater retention pond would be built.)
- The areas upstream and/or downstream from the stormwater discharge into a stream segment that may be affected by these discharges. (Example: Where sediment discharged to a receiving stream settles downstream and impacts a breeding area of a listed aquatic species.)

E.2 Eligibility Criterion

As required by Part 1.1.4, you must certify in your NOI that you meet one of the following criteria (A - E) to be eligible for coverage under the permit. Once you determine the applicable eligibility criterion, you must:

- Specify the basis for your selection of the applicable eligibility criterion, and if required, provide documentation that is the basis for your determination with the NOI form; and
- Provide documentation in your SWPPP that is sufficient to support your determination that you satisfy the requirements of the applicable criterion.

NOTE: You must use the information from the [USFWS IPaC](#) and [NOAA Species Directory](#) (see Part E.4 of this appendix, Step 2 and 3) when determining the presence of ESA listed species and critical habitat. Attaching aerial image(s) of the site to this NOI is helpful to EPA, USFWS, and NMFS in confirming eligibility under this criterion. Please Note: NMFS' jurisdiction includes ESA-listed marine and estuarine species that spawn in inland rivers.

Criterion A. No ESA-listed species and/or critical habitat present in action area. No ESA-listed species and designated critical habitat(s) are likely to occur in your facility's "action area" as defined in Appendix A. You must provide a description below of the basis for selecting this criterion and provide documentation supporting your eligibility determination in your SWPPP.

Basis statement content: A basis statement supporting the selection of this criterion must identify the USFWS and NMFS information sources used. State resources are not acceptable. Attaching aerial image(s) of the site to this NOI is helpful to EPA, USFWS, and NMFS in confirming eligibility under this criterion. Note that NMFS' jurisdiction includes ESA-listed marine and estuarine species that spawn in inland rivers.

Criterion B. Eligibility requirements met by another operator under the 2021 MSGP. Your industrial activity's discharges and discharge-related activities were already addressed in another operator's valid certification of eligibility for your "action area" under eligibility criteria A, C, D, or E of the 2021 MSGP and you have confirmed that no additional ESA-listed species and designated critical habitat not considered in that certification may be present or located in the "action area" (e.g., due to a new species listing or critical habitat designation). To certify your eligibility under this criterion, there must be no lapse of NPDES permit coverage in the other 2021 MSGP operator's certification. By certifying eligibility under this criterion, you must comply with any conditions upon which the other operator's certification was based. You must include in your NOI the NPDES ID assigned to the other 2021 MSGP operator's authorization under this permit. If your certification is based on another 2021 MSGP operator's certification under

criterion C, you must provide EPA with the relevant supporting information required (i.e., permit tracking number, industrial activity SWPPP, a description of the basis for the criterion selected) in your NOI form.

Basis statement content: A basis statement supporting the selection of this criterion must identify the eligibility criterion of the other MSGP NOI, the authorization date, and confirmation that the authorization is effective.

Criterion C1. Facility eligible for Criterion C in the 2015 MSGP with NO CHANGE to listed species, critical habitat, or action area. Your facility was eligible for Criterion C in the 2015 MSGP and there has been no change in your facility's action area and you have confirmed that there are no additional threatened or endangered species or designated critical habitat listed by USFWS and/or NMFS in your action area since your certification under Criterion C in the 2015 MSGP. You must provide a description of the basis of this criterion selected on your NOI form and provide documentation supporting your eligibility determination in your SWPPP.

Basis statement content: A basis statement supporting the selection of this criterion must provide the USFWS and/or NMFS resources consulted that helped you determine that there are no additional and/or critical habitat listed by under the jurisdiction of the Services in your action area.

Criterion C2. Facility eligible for Criterion C in the 2015 MSGP with CHANGES to listed species, critical habitat, or action area. Your facility was eligible for Criterion C in the 2015 MSGP, but there have been changes in your facility's action area, and/or additional threatened or endangered species and/or designated critical habitat have been listed by USFWS and/or NMFS in your action area since your certification under Criterion C under the 2015 MSGP. You must provide a description of the basis of this criterion selected on your NOI form and provide documentation supporting your eligibility determination in your SWPPP. You must submit your completed Criterion C2 Eligibility information at the same time that you submit your NOI, which will be held for 30 additional days prior to the standard 30-day review for all NOIs.

Basis statement content: A basis statement supporting the selection of this criterion must identify the following:

1. A description of the changes in the facility's action area (if applicable).
2. The USFWS and/or NMFS resources consulted that helped you determine that additional species and/or critical habitat have been listed/designated by either of the Services in your action area.
3. What ESA-listed species and/or designated critical habitat are located in your "action area".
4. Distance in miles between your site and the ESA-listed species and/or designated critical habitat within the action area (in miles, or state "on site" if the ESA-listed species and/or designated critical habitat is within the area to be disturbed).

5. A description of EPA approved measures you will implement or will continue to implement to ensure no likely adverse effects on ESA-listed species and/or critical habitat.

Criterion C3. ESA-listed species and/or designated critical habitat likely to occur, but discharges not likely to adversely affect them. ESA-listed threatened or endangered species or their designated critical habitat(s) under the jurisdiction of USFWS and/or NMFS are likely to occur in or near your facility's "action area," and you certify to EPA that your industrial activity's discharges and discharge-related activities are not likely to adversely affect ESA-listed and/or critical habitat. To certify your eligibility under this criterion, you must complete the Criterion C3 Eligibility Form, which you must complete additional questions in the Endangered Species Protection section of the NOI in NeT-MSGP, unless the EPA Regional Office grants you a waiver from electronic reporting, in which case you must submit to EPA at least 30 days prior to filing your NOI for permit coverage. After evaluation of your Criterion C3 Eligibility Form, EPA may require additional measures that you must implement to avoid or eliminate likely adverse effects on ESA-listed species and/or critical habitat from discharges and discharge-related activities. You must submit your completed Criterion C3 Eligibility information at the same time that you submit your NOI, which will be held for 30 additional days prior to the standard 30-day review for all NOIs. You must also provide a description of the basis for the criterion you selected on your NOI form and provide documentation supporting your eligibility determination in your SWPPP.

Basis statement content: A basis statement supporting the selection of this criterion must identify the following:

1. The USFWS and NMFS information resources and expertise (e.g., state or federal biologists) used to arrive at this conclusion. Any supporting documentation should explicitly state that both ESA-listed species and designated critical habitat under the jurisdiction of the USFWS and/or NMFS were considered in the evaluation.
2. What ESA-listed species and/or designated critical habitat are located in your "action area".
3. Distance in miles between your site and the ESA-listed species and/or designated critical habitat within the action area (in miles, or state "on site" if the ESA-listed species and/or designated critical habitat is within the area to be disturbed).
4. A description of EPA approved measures you will implement to ensure no likely adverse effects on ESA-listed species and/or critical habitat.
5. A statement affirming that "I agree to implement any additional measures that were determined by EPA to be necessary to ensure that my discharges and/or discharge-related activities will not have likely adverse effects on listed species and critical habitat."
6. If the EPA Regional Office granted you a waiver from electronic reporting, date you sent completed Criterion C3 Eligibility form to EPA.

Criterion D. ESA Section 7 consultation has successfully concluded. Consultation between a Federal Agency and the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service under section 7 of the Endangered Species Act has concluded. The consultation must have addressed the effects of the facility's discharges and discharge-related activities on ESA-listed species and/or designated critical habitat under the jurisdiction of USFWS and/or NMFS. To certify eligibility under this criterion, indicate the result of the consultation:

- i. A biological opinion and/or conference opinion that concludes that the action in question (taking into account the effects of your facility's discharges and discharge-related activities) is not likely to jeopardize the continued existence of ESA-listed species, or result in the destruction or adverse modification of designated critical habitat; or
- ii. Written concurrence from the applicable Service(s) with a finding that your facility's discharges and discharge-related activities are not likely to adversely affect ESA-listed species or designated critical habitat.

You must verify that the consultation does not warrant reinitiation under 50 CFR §402.16. If reinitiation of consultation is required, in order to be eligible under this criterion you must ensure consultation is reinitiated and the result of the consultation must be consistent with Criterion D (i), or (ii) above.

If eligible under Criterion D, you must also provide supporting documentation for your determination in your NOI and SWPPP, including the Biological Opinion (or ECO tracking number) or concurrence letter. You must include copies of the correspondence between yourself and the USFWS and/or NMFS in your SWPPP and your NOI.

Basis statement content: A basis statement supporting the selection of this criterion should identify the federal action agency(ies) involved, the field office/regional office(s) providing that consultation, any tracking numbers of identifiers associated with that consultation (e.g., IPaC number, ECO number), and the date the consultation was completed.

Criterion E. Issuance of section 10 permit. Potential take is authorized through the issuance of a permit under section 10 of the ESA by the USFWS and/or NMFS, and this authorization addresses the effects of the facility's discharges and discharge-related activities on ESA-listed species and designated critical habitat. You must include copies of the correspondence between yourself and the participating agencies in your SWPPP and your NOI.

Basis statement content: A basis statement supporting the selection of this criterion should identify whether USFWS or NMFS or both agencies provided a section 10 permit, the field office/regional office(s) providing permit(s), any tracking numbers of identifiers associated with that consultation (e.g., IPaC number, ECO number), and the date the permit was granted.

E.3 Eligibility Compliance

You must comply with any measures that formed the basis of your eligibility determination in Part 1.1.4 for the duration of your coverage under the MSGP in order to maintain your eligibility for coverage under the permit. These measures become permit requirements per Part 2.3. Documentation of these measures must be kept as part of your SWPPP (see Part 6.2.6.1).

E.4 Criterion Selection Worksheet**Instructions:**

You must follow the step-by-step instructions in this worksheet in order to determine your eligibility under the Part 1.1.4. Alternatively, if you prefer to use a Biological Evaluation (or its equivalent) in making a determination of your eligibility, you should ensure all of the information requested below for the criterion you are selecting is fully addressed in the document and provided. You must attach this completed document or Biological Evaluation (or equivalent) to your SWPPP to support your Part 1.1.4 eligibility determination.

You may need the following information in order to determine your eligibility:

- 1) Your facility's draft Stormwater Pollution Prevention Plan (SWPPP), including information on receiving waters.
- 2) Any additional site-specific information related to your facility's discharges and discharge-related activities, such as the geographic location.
- 3) The list(s) of threatened and endangered species and/or any designated critical habitat in your action area, as acquired from the Fish and Wildlife Service and/or the National Marine Fisheries Service. Directions on how to acquire species lists is described in a subsequent section below.

Note that much of the information needed to complete this worksheet is also needed in order to prepare your NOI for permit coverage and is information that is part of your SWPPP. You may copy and paste any information that is already required and completed in your SWPPP into this worksheet. *(You may also decide to make minor changes or additions to your SWPPP while filling out the worksheet for clarification purposes or to address any concerns that are identified below.)*

STEP 1: DETERMINE IF YOU MEET THE ELIGIBILITY REQUIREMENTS OF CRITERION B, D, or E.

- I. You should first determine whether you are eligible under criterion B (because another operator has accounted for your action area in their valid certification of eligibility under the 2021 MSGP), criterion D (because of a previously completed ESA section 7 consultation), or criterion E (because of a previously issued ESA section 10 permit).
- II. If you determine that your facility does not meet criterion B, D, or E (e.g., due to difference in action area described, lack of analysis of appropriate effects, new listings or designation of critical habitat), proceed to [Step 2](#) below.

Criterion B Eligibility Requirements

If your industrial activities were already addressed in another operator's valid certification of eligibility under the current 2021 MSGP, you may be eligible for coverage under criterion B. In order to be eligible for coverage under criterion B, you must confirm that **all** three of the following are true:

- ☐ You have confirmed that the other operator's certification of eligibility accounted for your action area and that the eligibility determination was valid.
- ☐ There has been no lapse of NPDES permit coverage in the other operator's certification.

- ☐ You will comply with all measures that formed the basis of the other operator's valid certification of eligibility. Provide the operator's NPDES permit number and list any measures that you must comply with in the box below (or enter "N/A" if none exist):

- **If all three of the above are true, you may select criterion B on your NOI.** You must include in your NOI the NPDES ID assigned to the other operator's authorization under this permit, and a description of the basis for the criterion selected on your NOI form, including the eligibility criterion selected in the other operator's NOI. You must include this completed Worksheet in your SWPPP.
- **If any of the above are not true, you may not select criterion B and must proceed to [Step 2](#).** For example, if there are any listed species in your action area that were not addressed in the other operator's certification, you are not eligible under criterion B.

Criterion D Eligibility Requirements

If consultation under section 7 of the ESA has concluded, you may be eligible for coverage under criterion D. In order to be eligible for coverage under criterion D, you must confirm that **all** two of the following are true:

- ☐ A consultation between a federal agency and the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service under section 7 of the ESA has concluded. Consultations can be either formal or informal, and would have occurred only as a result of a separate federal action (e.g., during application for an individual wastewater discharge permit or the issuance of a wetlands dredge and fill permit), and the consultation must have addressed the effects of your industrial activity's discharges and discharge-related activities on all ESA-listed threatened or endangered species and all designated critical habitat in your action area. The result of this consultation must be either:
- i. A biological opinion currently in effect that concludes that the action in question (taking into account the effects of your facility's discharges and discharge-related activities) is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. The biological opinion must have included the effects of your facility's discharges¹ and discharge-related activities on all the listed species and designated critical habitat in your action area. To be eligible under (i), any

¹ Effects of discharge includes, but is not limited to, the analysis of the hydrological, chemical, and biological effects of the discharge on listed species, their prey, and their habitat, as well as critical habitat, where designated. For example, the effects analysis would have evaluated whether the various pollutants in the discharge (e.g., TSS, metals) would adversely affect listed species through exposure to the pollutants, or to their prey or habitat. Effects that look only at short-term effects unrelated to the stormwater discharge effects to listed species are not sufficient for these purposes.

reasonable and prudent measures specified in the incidental take statement must be implemented;

- ii. Written concurrence (e.g., letter of concurrence) from the applicable Service(s) with a finding that your facility's discharges and discharge-related activities are not likely to adversely affect ESA-listed species and/or designated critical habitat. The concurrence letter must have included the effects of your facility's discharges and discharge-related activities on all the ESA-listed species and/or designated critical habitat on your species list(s) acquired from the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service as part of this worksheet.
- ☐ The consultation does not warrant reinitiation under 50 CFR §402.16; or, if reinitiation of consultation is required (e.g., due to a new species listing or critical habitat designation; new information), you have reinitiated the consultation and the result of the consultation is consistent with the statements above. Attach a copy of any reinitiation documentation from the Services or other consulting federal agency.
- **If both of the above are true, you may select criterion D on your NOI.** You must also provide a description of the basis for the criterion selected on your NOI form and you must include this completed worksheet in your SWPPP. In both your SWPPP and NOI you must also provide the Biological Opinion (or ECO tracking number) or concurrence letter and any other documentation supporting your eligibility determination.
 - **If any of the above are not true, you may not select criterion D and must proceed to [Step 2](#).** For example, if the biological opinion or written concurrence did not include the effects of the discharge or discharge-related activities as described above (e.g., the previous consultation covered some but not all of the species or critical habitat in your action area as shown on your species list), or if the consultation is no longer valid (e.g., due to new species listings), you are not eligible under criterion D.

Criterion E Eligibility Requirements

If your industrial activities are the subject of a permit under section 10 of the ESA, and this authorization addresses the effects of your facility's discharges and discharge-related activities on ESA-listed species and designated critical habitat in your action area, you may be eligible for coverage under criterion E. In order to be eligible for coverage under criterion E, you must confirm that the following is true:

- ☐ A permit has been issued under section 10 of the ESA. The permit authorization specifically addresses the effects of your facility's discharges and discharge-related activities (if applicable) on all federally-listed species and designated critical habitat in your action area.
- **If the above is true, you may select criterion E on your NOI.** You must also provide a description of the basis for the criterion selected on your NOI form and must include this completed worksheet in your SWPPP. In both your SWPPP and your NOI you must provide a copy of the section 10 permit issued by the Services.
 - **If the above is not true, you may not select criterion E and must proceed to [Step 2](#).** For example, if a permit has been issued under section 10 of the ESA, but the permit authorization did not address the effects of your facility's discharges and/or discharge-related activities on all federally-listed species and designated critical

habitat in your action area, you are not eligible under criterion E, but you should attach a copy of the permit to the SWPPP for reference.

E.5 STEP 2: DETERMINE THE EXTENT OF YOUR ACTION AREA

You must determine whether species listed as either threatened or endangered, or their critical habitat(s) are located in your facility's [action area](#) (i.e., all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action, including areas beyond the footprint of the facility that are likely to be affected by stormwater discharges, discharge-related activities, and authorized non-stormwater discharges). Consider the following in determining the action area for your facility:

- Discharges of pollutants into downstream areas can expand the action area well beyond the footprint of your facility and the discharge point(s). Take into account the controls you will be implementing to minimize pollutants and the receiving waterbody characteristics (e.g., perennial, intermittent, ephemeral) in determining the extent of physical, chemical, and/or biotic effects of the discharges. All receiving waterbodies that could receive pollutants from your facility must be included in your action area.
- Discharge-related activities must also be accounted for in determining your action area. Discharge-related activities are any activities that cause, contribute to, or result in stormwater and authorized non-stormwater point source discharges, and measures such as the siting, construction, and operation of stormwater controls to control, reduce, or prevent pollutants from being discharged. For example, any new or modified stormwater controls that will have noise or other similar effects, and any disturbances associated with construction of controls, are part of your action area.

If you have any questions about determining the extent of your action area, you may contact EPA or the Services for assistance. <https://www.epa.gov/npdes/contact-us-stormwater#regional>

You must include a **map and a written description of** the action area of your facility in [Attachment 1](#) of this appendix. You may choose to include the map that is generated from the FWS' on-line mapping tool IPaC (the *Information, Planning, and Consultation System*) located at <http://ecos.fws.gov/ipac/> (see [Step 3](#) for information about using this tool).

You must proceed to [Step 3](#) below.

E.6 STEP 3: DETERMINE IF LISTED THREATENED OR ENDANGERED SPECIES AND/OR CRITICAL HABITAT ARE PRESENT IN YOUR ACTION AREA.

You must determine whether species listed as either threatened or endangered under the Endangered Species Act, and/or their designated critical habitat(s) (as defined in Appendix A), are located in your facility's action area. ESA listed species and designated critical habitat are under the purview of the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS), and in many cases, you will need to acquire species and critical habitat lists from both Services.

- For NMFS species and critical habitat information, use the following webpages, which provide up-to-date information on listed species (<https://www.fisheries.noaa.gov/species-directory/threatened-endangered>) and critical habitat <https://www.fisheries.noaa.gov/national/endangered-species-conservation/critical-habitat>. To determine the field office that corresponds to your facility, go to <https://www.fisheries.noaa.gov/regions>. Choose the Region where the project is based from the left-hand column and the office from the About Us on the right-hand column.

If the action area includes coastal waters or waters used by species that migrate between fresh and salt waters (e.g., salmon, sturgeon), you must obtain a species list from NMFS field office.

- For FWS species information, use the on-line mapping tool IPaC (the *Information, Planning, and Consultation System*) located at <http://ecos.fws.gov/ipac/>, and follow these steps:
 - *Select Get Started.*
 - **Search or zoom to find your location:** Use an address, city name or other location to find your facility then use the zoom in/out feature to see the entire extent of your action area on the screen..
 - **Define you action area:** Use one of the mapping features (e.g., sketch, polygon or line drawing tool) to draw your entire action area.
 - For the aquatic portion of your action area, trace the waterbody(ies) with the tool to characterize your action area.
 - If your proposal will include any upland activities (i.e., discharge-related activities), or if there is some aspect of your discharge that would potentially result in effects to terrestrial species, include the corresponding upland areas within your action area.
 - When you are done, go to confirm and press *Continue*.
 - Select *Define Project* to request an Official Species List
 - Complete the fields on the Official Species List Request page and include "(MSGP)" at the end of the project description.
 - For Classification, select "Water Quality Modification".
 - Select the appropriate requesting agency/organization type (for most operators, this should be "Other").
 - Submit the request to acquire an Official Species List, which should show both listed species as well as any designated critical habitat that are present in the action area in the previous step.
 - Note: *If a link to an Official Species List is not available on the page, follow the web link of the office(s) indicated, or contact the office directly by mail or phone if a web link is not shown.*

The principle authority for critical habitat designations and associated requirements is found at [50 CFR Parts 17](#) and [226](#).

Attach a copy of the species and critical habitat list(s) from the Service(s) to [Attachment 2](#) of this appendix and use the list(s) to complete the rest of this worksheet. For FWS species, include the full printout from your IPaC query/Official Species List in Attachment 2. You can include the map from your IPaC query in Attachment 1. For NMFS species, include the full printout from the Species Directory with the correct Region selected.

If after following the steps you have determined that there are no listed species and/or designated critical habitat in your action area, you may be eligible for coverage under [criterion A](#).

If you have determined that there are or may be listed species and/or designated critical habitat in your action area, you are not eligible under criterion A and must proceed to [Step 4](#) below.

Criterion A Eligibility Requirements

In order to be eligible for coverage under criterion A, you must confirm that the following is true:

☐ I have confirmed there to be no ESA-listed species and no critical habitat in my action area.

- **If the above is true, you may select criterion A on your NOI form.** You must also provide a description of the basis for the criterion selected on your NOI form. You must include this completed worksheet in your SWPPP.
Note: If your Official Species List from the USFWS indicated no species or critical habitat were present in your action area, include the full consultation tracking code at the top of your Official Species List in your NOI in the basis statement for Criterion A. If an Official Species List was not available on IPaC, list the contact date and name of the Service staff with whom you corresponded to verify no USFWS species or critical habitat were present in your action area.

Note: For existing dischargers that have previously obtained coverage under criterion A, you must verify whether ESA-protected species and/or critical habitat are expected to exist in your action area, as described above. Please note that if you now find that your action area overlaps with ESA-protected species or critical habitat, you must proceed to Step 4.

- If the above is not true, you may not select criterion A and must proceed to [Step 4](#) to determine if you can become eligible under criterion C.

STEP 4: DETERMINE IF YOUR INDUSTRIAL FACILITY'S DISCHARGES OR DISCHARGE-RELATED ACTIVITIES ARE LIKELY TO ADVERSELY AFFECT LISTED THREATENED OR ENDANGERED SPECIES OR DESIGNATED CRITICAL HABITAT AND ANY MEASURES THAT MUST BE IMPLEMENTED TO AVOID ADVERSE EFFECTS

If in Step 3 you determined that listed species and/or designated critical habitat could exist in your action area, you must next assess whether your discharges and discharge-related activities are likely to adversely affect ESA-listed threatened or endangered species or designated critical habitat, and whether any additional measures are necessary to ensure no likely adverse effects. In order to make a determination of your facility's likelihood of adverse effects, you must complete additional questions in the Endangered Species Protection section of the NOI in NeT-MSGP, unless the EPA Regional Office grants you a waiver from electronic reporting, in which case you must complete the attached [Criterion C3 Eligibility Form](#) and must submit this form to EPA a minimum of 30 days prior to filing your NOI for permit coverage. After you submit your NOI containing Criterion C3 information or your [Criterion C3 Eligibility Form](#), you may be contacted by EPA with additional measures that you must implement in order to ensure your eligibility under criterion C3.

Criterion C3 Eligibility Form

Instructions:

In order to be eligible for coverage under criterion C3, **you must complete the Endangered Species Protection section of the Notice of Intent in the NPDES eReporting Tool (NeT-MSGP)**. Per Part 7.1, you must submit your NOI electronically via NeT-MSGP, unless the EPA Regional Office grants you a waiver from electronic reporting, in which case you may use this paper Criterion C3 form. If using the paper form, you must complete the following form and you must submit it to EPA following the instructions in Section VII a **minimum of 30 days prior to filing your NOI for permit coverage**. After you submit your form, you may be contacted by EPA with additional measures (e.g., additional stormwater controls or modifications to your discharge-related activities) that you must implement in order to ensure your eligibility under criterion C3.

If after completing this worksheet you cannot make a determination that your discharges and discharge-related activities are not likely to adversely affect ESA listed threatened or endangered species or designated critical habitat, you must submit this completed worksheet to EPA, and you may not file your NOI for permit coverage until you receive a determination from EPA that your discharges and/or discharge-related activities are not likely to adversely affect ESA-protected species and critical habitat.

Note: Much of the information needed for this form can be obtained from your draft SWPPP which will be needed when you file your NOI.

SECTION I. OPERATOR, FACILITY, AND SITE LOCATION INFORMATION.

1) Operator Information

a) Operator Name: _____

b) Point of Contact

First Name: _____ Last Name: _____

Phone Number: _____

E-mail: _____

2) Facility Information

a) Facility Name: _____

b) Check which of the following applies:

- ☐ I am seeking coverage under the MSGP as a new discharger or as a new source
- ☐ I am seeking coverage under the MSGP as an existing discharger and my facility has modifications to its discharge characteristics (e.g., changes in discharge flow or area drained, different pollutants) and/or discharge-related activities (e.g., stormwater controls)

Indicate the number of years the facility has been in operation: _____ years

Provide your NPDES ID (i.e., permit tracking number) from your previous MSGP coverage: _____

- ☐ I am seeking coverage under the MSGP as an existing discharger and there are no modifications to my facility.

Indicate the number of year(s) the facility has been in operation: _____ year(s)

Provide your NPDES ID (i.e., permit tracking number) from your previous MSGP coverage: _____

c) Facility Address:

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip Code: _____

d) Identify the primary industrial sector to be covered under the 2021 MSGP:

SIC Code _____ or Primary Activity Code _____

Sector _____ and Subsector _____

e) Identify the sectors of any co-located activities to be covered under the 2021 MSGP:

Sector _____ Subsector _____

Sector _____ Subsector _____

Sector _____ Subsector _____

Sector _____ Subsector _____

Sector _____ Subsector _____

Sector _____ Subsector _____

f) Estimated area of industrial activity exposed to stormwater: _____ acres

g) Provide a general description of the industrial activities that are taking place at this facility:

3) Receiving Waters Information

List all the stormwater outfalls from your facility.				For each outfall, provide the following receiving water information:	
Discharge Point ID	Design Capacity (if known)	Latitude (decimal degrees)	Longitude (decimal degrees)	Name of the receiving water that receives stormwater from the discharge point and/or from the MS4 that the discharge point discharges to	Type of Waterbody (e.g., lake, pond, river/stream/creek, estuarine/marine water)
		____.____	____.____		
		____.____	____.____		
		____.____	____.____		
		____.____	____.____		
		____.____	____.____		

SECTION II. ACTION AREA

As required in [Step 2 of Section E.4 of Appendix E](#), You must include a map and a written description of the action area of your facility in Attachment 1 of this appendix.

SECTION III. LISTED SPECIES AND CRITICAL HABITAT LIST

As required in [Step 3 of Section E.4 of Appendix E](#), attach a copy of the species and critical habitat list(s) from the Service(s) to [Attachment 2](#) of this appendix and use the list(s) to complete the rest of this worksheet. For FWS species, include the full printout from your IPaC query/Official Species List in Attachment 2. You can include the map from your IPaC query in Attachment 1.

Review your species list in Attachment 2, choose one of the following three statements, and follow the corresponding instructions:

Note: For the purposes of this permit, "terrestrial species" would not include animal or plant species that 1) spends any portion of its life cycle in a waterbody or wetland, or 2) if an animal, depends on prey or habitat that occurs in a waterbody or wetland. For example, shorebirds, wading birds, amphibians, and certain reptiles would not be considered terrestrial species under this definition. Please also be aware that some terrestrial animals (e.g., certain insects, amphibians) may have an aquatic egg or larval/juvenile phase.

☐ The species list includes only terrestrial species and/or their designated critical habitat. No aquatic or aquatic-dependent species or their critical habitat are present in the action area.

You may skip to [Section IV](#) of this form. You are not required to fill out [Section V](#).

☐ The species list includes only aquatic and/or aquatic-dependent species and/or their designated critical habitat. No terrestrial species or their critical habitat are present in the action area. **You may skip to [Section V](#) of this form and are not required to fill out [Section IV](#).**

☐ The species list includes both terrestrial and aquatic or aquatic-dependent species and/or their designated critical habitat. **You must fill out both [Sections IV](#) and [V](#) of this form.**

SECTION IV. EVALUATION OF DISCHARGE-RELATED ACTIVITIES EFFECTS

Note: You are only required to fill out this section if your facility's action area contains terrestrial species and/or their designated critical habitat. If your action area only contains aquatic and/or aquatic-dependent species and/or their designated critical habitat, you can skip directly to [Section V](#).

Most of the potential effects related to coverage under the MSGP are assumed to occur to aquatic and/or aquatic-dependent species. However, in some cases, potential effects to terrestrial species and/or their critical habitat should be considered as well from any discharge-related activities that occur during coverage under the MSGP. Examples of discharge-related activities that could have potential effects on listed terrestrial species or their critical habitat include the storage of materials and land disturbances associated with stormwater management-related activities (e.g., the installation or placement of stormwater control measures).

A. Select the applicable statement(s) below and follow the corresponding instructions:

- ☐ There are no discharge-related activities that are planned to occur during my coverage under the 2021 MSGP. You can conclude that your discharge-related activities will have no likely adverse effects, and:
- If there are any aquatic or aquatic-dependent species and/or their critical habitat in your action area, you must skip to [Section V](#), *Evaluation of Discharge Effects*, below.
 - If there are no aquatic or aquatic-dependent species, you may skip to [Section VI](#) and verify that your activities will have no likely adverse effects. You must submit this form to EPA as specified in [Section VII](#) of this form. You may select criterion C on your NOI form and may submit your NOI for permit coverage 30 days after you have submitted this *Criterion C Eligibility Form*. You must also provide a description of the basis for the criterion you selected on your NOI form, **including the species and critical habitat list(s) in your action area**, as well as any other documentation supporting your eligibility. You must also include this completed *Criterion C Eligibility Form* in your SWPPP.
- ☐ There are discharge-related activities planned as part of the proposal. Describe your discharge-related activities in the following box and continue to (b) below.

B. In order to ensure any discharge-related activities will have no likely adverse effects on ESA-listed threatened and endangered species and/or their designated critical habitat, you must certify that all the following are true:

- ☐ Discharge-related activities will occur:
 - on previously cleared/developed areas of the site where maintenance and operation of the facility are currently occurring or where existing conditions of the area(s) in which the discharge-related activities will occur precludes its use by listed species (e.g., work on existing impervious surfaces, work occurring inside buildings, area is not used by species), and
 - if discharge-related activities will include the establishment of structures (including, but not limited to, infiltration ponds and other controls) or any related disturbances, these structures and/or disturbances will be sited in areas that will not result in isolation or degradation of nesting, breeding, or foraging habitat or other habitat functions for listed animal species (or their designated critical habitat), and will avoid the destruction of native vegetation (including listed plant species).
- ☐ If vegetation removal (e.g., brush clearing) or other similar activities will occur, no terrestrial listed species that use these areas for habitat would be expected to be present during vegetation removal and these activities will not occur within critical habitat.

If all the above are true, you can conclude that your discharge-related activities will have no likely adverse effects, and:

- If there are any aquatic or aquatic-dependent species and/or critical habitat in your action area, you must skip to [Section V](#), *Evaluation of Discharge Effects*, below.
- If there are no aquatic or aquatic-dependent species, you may skip to [Section VI](#) and verify that your activities will have no likely adverse effects. You must submit this form to EPA as specified in [Section VII](#) of this form. You may select criterion C on your NOI and may submit your NOI for permit coverage 30 days after you have submitted this completed form. You must also provide a description of the basis for the criterion you selected on your NOI form, **including the species and critical habitat list(s)**, and any other documentation supporting your eligibility. You must also include this completed *Criterion C Eligibility Form* in your SWPPP.
- **If any of the above are not true**, you cannot conclude that your discharge-related activities will have no likely adverse effects. You must complete the rest of this form (if applicable) and must submit the form to EPA for assistance in determining your eligibility for coverage.

SECTION V. EVALUATION OF DISCHARGE EFFECTS

Note: You are only required to fill out this section if your facility's action area includes aquatic and/or aquatic-dependent species and/or their critical habitat.

In this section, you will evaluate the likelihood of adverse effects from your facility's discharges. The scope of effects to consider will vary with each facility and species/critical habitat characteristics. The following are examples of discharge effects you should consider:

- *Hydrological Effects.* Stormwater discharges may adversely affect receiving waters by causing changes in water quality parameters such as turbidity, temperature, salinity, or pH. Stormwater discharges may adversely affect the immediate vicinity of the discharge point through streambank erosion and scour. These effects will vary with the amount of stormwater

discharged and the volume and condition of the receiving water. Where a stormwater discharge constitutes a minute portion of the total volume of the receiving water, adverse hydrological effects are less likely.

- **Toxicity of Pollutants.** Pollutants in stormwater may have toxic effects on listed species and may adversely affect critical habitat. Exceedances of benchmarks, effluent limitation guidelines, or state or tribal water quality requirements may be indicative of potential adverse effects on listed species or critical habitat. However, some listed species may be adversely affected at pollutant concentrations below benchmarks, effluent limitation guidelines, and state or tribal water quality standards due to exposures to multiple stressors at the same time. In addition, stormwater pollutants identified in Part 6.2.3.2 of your SWPPP, but not monitored as benchmarks or effluent limitation guidelines, may also adversely affect listed species and critical habitat.

As these effects are difficult to analyze for listed species, their prey, habitat, and designated critical habitat, this form helps you to analyze your discharges to make a determination of whether your discharges will likely have adverse effects and whether there are any additional controls you can implement to ensure no likely adverse effects.

A. Evaluation of Pollutants and Controls to Avoid Adverse Effects. In this section, you must document <u>all</u> of your pollutant sources and pollutants expected to be discharged in stormwater (see Part 8). You must also document the controls you will implement to avoid adverse effects on listed aquatic and aquatic-dependent species and critical habitat. You must include specific details about the expected effectiveness of the controls in avoiding adverse effects to the listed aquatic and aquatic-dependent species and critical habitat. Attach additional pages if needed.		
Potential Pollutant Source	Potential Pollutants	Controls to Avoid Adverse Effects on Listed Aquatic and Aquatic-Dependent Species and Critical Habitat. Include information supporting why the control(s) will ensure no adverse effects, including any data you have about the effectiveness of the control(s) in reducing pollutant concentrations. You may also attach photos of
e.g., vehicle and equipment fueling	e.g., <ul style="list-style-type: none"> • Oil & grease • Diesel • Gasoline • TSS • Antifreeze 	e.g., <ul style="list-style-type: none"> • Fueling operators (including the transfer of fuel from tank trucks) will be conducted on an impervious or contained pad or under cover • Drip pans will be used where leaks or spills of fuel can occur and where making and breaking hose connections • Spill kit will be kept on-site in close proximity to potential spill areas • Any spills will be cleaned-up immediately using dry clean-up methods • Stormwater runoff will be diverted around fueling areas using diversion dikes and curbing

Potential Pollutant Source	Potential Pollutants	Controls to Avoid Adverse Effects on Listed Aquatic and Aquatic-Dependent Species and Critical Habitat.

Potential Pollutant Source	Potential Pollutants	Controls to Avoid Adverse Effects on Listed Aquatic and Aquatic-Dependent Species and Critical Habitat.
<input type="checkbox"/> Check if you are not able to make a preliminary determination that any of your pollutants will be controlled to a level necessary to avoid adverse effects on aquatic and/or aquatic-dependent listed species and their designated critical habitat. You must check in Section VI that you are unable to make a determination of no likely adverse effects and must complete the rest of the form. You must submit your completed form to EPA for assistance in determining your eligibility for coverage.		

B. Analysis of Effects Based on Past Monitoring Data. Select which of the following applies to your facility:

- ☐ I have no previous monitoring data for my facility because there are no applicable monitoring requirements for my facility's sector(s).
- ☐ I have no previous monitoring data for my facility because I am a new discharger or a new source, but I am subject to monitoring under the 2021 MSGP. You must provide information to support a conclusion that your facility's discharges are not expected to result in benchmark or numeric effluent limit exceedances that will adversely affect listed species or their critical habitat:

- ☐ My facility has not had any exceedances under the 2015 MSGP of any required benchmark(s) or numeric effluent limits. I comply with the applicable monitoring requirements and have not had any exceedances
- ☐ My facility has had exceedances of one or more benchmark(s) or numeric effluent limits under the 2015 MSGP, but I have addressed them during my coverage under the 2015 MSGP, or in my evaluation of controls to avoid adverse effects in (A) above. Describe all actions (including specific controls) that you will implement to ensure that the pollutants in your discharge(s) will not result in likely adverse effects from future exceedances.

- ☐ Check if your facility has had exceedances of one or more benchmarks or numeric effluent limits under the 2015 MSGP and you have not been able to address them to avoid adverse effects from future exceedances, or if you are a new discharger or a new source but you are not sure if you can avoid adverse effects from possible exceedances. You must check in [Section VI](#) that you are unable to make a determination of no likely adverse effects. You must submit your completed form to EPA for assistance in determining your eligibility for coverage. You may not file your NOI for permit coverage until you are able to make a determination that your discharges will avoid adverse effects on listed species and designated critical habitat.

authorized for permit coverage, EPA may advise you that additional information is needed, or that there are additional measures you must implement to avoid likely adverse effects.

If you are unable to make a preliminary determination that your discharges and/or discharge-related activities are not likely to adversely affect listed species and critical habitat, this worksheet must be submitted to EPA, but you may not file your NOI for permit coverage until you have received a determination from EPA that your discharges and/or discharge-related activities are not likely to adversely affect listed species and critical habitat.

Attachment 1

Include a **map and a written description** of the action area of your facility, as required in [Step 2 of Section E.4 of Appendix E](#). You may choose to include the map that is generated from the FWS' on-line mapping tool IPaC (the *Information, Planning, and Consultation System*) located at <http://ecos.fws.gov/ipac/>.

The written description of your action area that accompanies your action area map must explain your rationale for the extent of the action area drawn on your map. For example, your action area written description may look something like this:

The action area for the (name of your facility)'s stormwater discharges extends downstream from the outfall(s) in (name of receiving waterbody) (# of meters/feet/kilometers/miles). The downstream limit of the action area reflects the approximate distance at which the discharge waters and any pollutants would be expected to cause potential adverse effects to listed species and/or critical habitat because (insert rationale). The action area does/does not extend to the (name of receiving waterbody)'s confluence with (name of confluence waterbody) because (insert rationale).

Note that your action area written description will be highly site-specific, depending on the expected effects of your facility's discharges and discharge-related activities, receiving waterbody characteristics, etc.

Attachment 2

List or attach the list(s) of species and critical habitat in your action area on this sheet, as required in [Step 3 of Section E.4 of Appendix E](#). You must include a list for applicable listed NMFS and USFWS species and critical habitat. If there are listed species and/or critical habitat for only one Service, you must include a statement confirming there are no listed species and/or critical habitat for the other Service. For USFWS species, include the USFWS Official Species List full printout from your IPaC query (including the consultation code and event code at the top of the FWS printout). *Note: If your Official Species List from the USFWS indicated no species or critical habitat were present in your action area, include the consultation code and event code that can be found at the top of your Official Species List in your NOI basis statement. If an Official Species List was not available on IPaC, list the contact date, the ecological services field office and the name of the Service staff with whom you corresponded to identify the existence of any USFWS species or critical habitat present in your action area.*



Instructions:

In order to be eligible for coverage under Criterion C3, **you must complete the Endangered Species Protection section of the Notice of Intent in the NPDES eReporting Tool (NeT-MSGP)**. Per Part 7.1, you must submit your NOI electronically via NeT-MSGP, unless the EPA Regional Office grants you a waiver from electronic reporting, in which case you may use this paper Criterion C3 form. If using the paper form, you must complete the following form and you must submit it to EPA following the instructions in Section VII **a minimum of 30 days prior to filing your NOI for permit coverage**. After you submit your form, you may be contacted by EPA with additional measures (e.g., additional stormwater controls or modifications to your discharge-related activities) that you must implement in order to ensure your eligibility under Criterion C3.

If after completing this worksheet you cannot make a determination that your discharges and discharge-related activities are not likely to adversely affect ESA listed threatened or endangered species or designated critical habitat, you must submit this completed worksheet to EPA, and you may not file your NOI for permit coverage until you receive a determination from EPA that your discharges and/or discharge-related activities are not likely to adversely affect ESA-protected species and critical habitat.

Note: Much of the information needed for this form can be obtained from your draft SWPPP which will be needed when you file your NOI.

Section I. Operator, Facility, and Site Location Information

1) Operator Information:

a) Operator Name: b) Point of Contact Phone: - - Ext. E-mail:

2) Facility Information

a) Facility Name:

b) Check which of the following applies:

- ☐ I am seeking coverage under the MSGP as a new discharger or as a new source
- ☐ I am seeking coverage under the MSGP as an existing discharger and my facility has modifications to its discharge characteristics (e.g., changes in discharge flow or area drained, different pollutants) and/or discharge-related activities (e.g., stormwater controls)

Indicate the number of years the facility has been in operation: _____ years

Provide your NPDES ID (i.e., permit tracking number) from your previous MSGP coverage: _____

- ☐ I am seeking coverage under the MSGP as an existing discharger and there are no modifications to my facility.

Indicate the number of years the facility has been in operation: _____ years

Provide your NPDES ID (i.e., permit tracking number) from your previous MSGP coverage: _____

c) Facility Address:

Address 1
Street/ Location: Address 2: City: State: ZIP Code:

d) Identify the primary industrial sector to be covered under the 2021 MSGP:

SIC Code or Primary Activity Code Sector and Subsector

[illegible]

g) Provide a general description of the industrial activities that are taking place at this facility:

List all the stormwater outfalls from your facility				For each outfall, provide the following receiving water information:	
Discharge Point ID	Design Capacity (if known)	Latitude (decimal degrees)	Longitude (decimal degrees)	Name of the receiving water that receives stormwater from the discharge point and/or from the MS4 that the discharge point discharges to	Type of Waterbody (e.g., lake, pond, river/stream/creek, estuarine/marine water)
		____.____° N	____.____° W		
		____.____° N	____.____° W		
		____.____° N	____.____° W		
		____.____° N	____.____° W		
		____.____° N	____.____° W		

As required in Step 2 of Section E.4 of Appendix E, you must include a map and a written description of the action area of your facility in Attachment 1 of this appendix.

As required in Step 3 of Section E.4 of Appendix E, attach a copy of the species and critical habitat list(s) from the Service(s) to [Attachment 2](#) of this appendix and use the list(s) to complete the rest of this worksheet. For FWS species, include the full printout from your IPaC query/Official Species List in Attachment 2. You can include the map from your IPaC query in Attachment 1.

Note: For the purposes of this permit, “terrestrial species” would not include animal or plant species that 1) spends any portion of its life cycle in a waterbody or wetland, or 2) if an animal, depends on prey or habitat that occurs in a waterbody or wetland. For example, shorebirds, wading birds, amphibians, and certain reptiles would not be considered terrestrial species under this definition. Please also be aware that some terrestrial animals (e.g., certain insects, amphibians) may have an aquatic egg or larval/juvenile phase.

☐ The species list includes only terrestrial species and/or their designated critical habitat. No aquatic or aquatic-dependent species or their critical habitat are present in the action area. **You may skip to [Section IV](#) of this form. You are not required to fill out [Section V](#).**

☐ The species list includes only aquatic and/or aquatic-dependent species and/or their designated critical habitat. No terrestrial species or their critical habitat are present in the action area. **You may skip to [Section V](#) of this form and are not required to fill out [Section IV](#).**

☐ The species list includes both terrestrial and aquatic or aquatic-dependent species and/or their designated critical habitat. **You must fill out both Sections [IV](#) and [V](#) of this form.**

Section IV. Evaluation of Discharge-Related Activities Effects

Note: You are only required to fill out this section if your facility's action area contains terrestrial species and/or their designated critical habitat. If your action area only contains aquatic and/or aquatic-dependent species and/or their designated critical habitat, you can skip directly to [Section V](#).

Most of the potential effects related to coverage under the MSGP are assumed to occur to aquatic and/or aquatic-dependent species. However, in some cases, potential effects to terrestrial species and/or their critical habitat should be considered as well from any discharge-related activities that occur during coverage under the MSGP. Examples of discharge-related activities that could have potential effects on listed terrestrial species or their critical habitat include the storage of materials and land disturbances associated with stormwater management-related activities (e.g., the installation or placement of stormwater control measures).

A. Select the applicable statement(s) below and follow the corresponding instructions:

- ☐ There are no discharge-related activities that are planned to occur during my coverage under the 2021 MSGP. You can conclude that your discharge-related activities will have no likely adverse effects, and:
- If there are any aquatic or aquatic-dependent species and/or their critical habitat in your action area, you must skip to [Section V](#), Evaluation of Discharge Effects, below.
 - If there are no aquatic or aquatic-dependent species, you may skip to [Section VI](#) and verify that your activities will have no likely adverse effects. You must submit this form to EPA as specified in [Section VII](#) of this form. You may select criterion C on your NOI form and may submit your NOI for permit coverage 30 days after you have submitted this Criterion C Eligibility Form. You must also provide a description of the basis for the criterion you selected on your NOI form, **including the species and critical habitat list(s) in your action area**, as well as any other documentation supporting your eligibility. You must also include this completed Criterion C Eligibility Form in your SWPPP.
- ☐ There are discharge-related activities planned as part of the proposal. Describe your discharge-related activities in the following box and continue to (b) below.

B. In order to ensure any discharge-related activities will have no likely adverse effects on ESA- listed threatened and endangered species and/or their designated critical habitat, you must certify that all the following are true:

- ☐ Discharge-related activities will occur:
- on previously cleared/developed areas of the site where maintenance and operation of the facility are currently occurring or where existing conditions of the area(s) in which the discharge-related activities will occur precludes its use by listed species (e.g., work on existing impervious surfaces, work occurring inside buildings, area is not used by species), and
 - if discharge-related activities will include the establishment of structures (including, but not limited to, infiltration ponds and other controls) or any related disturbances, these structures and/or disturbances will be sited in areas that will not result in isolation or degradation of nesting, breeding, or foraging habitat or other habitat functions for listed animal species (or their designated critical habitat), and will avoid the destruction of native vegetation (including listed plant species).
- ☐ If vegetation removal (e.g., brush clearing) or other similar activities will occur, no terrestrial listed species that use these areas for habitat would be expected to be present during vegetation removal and these activities will not occur within critical habitat.

If all the above are true, you can conclude that your discharge-related activities will have no likely adverse effects, and:

- If there are any aquatic or aquatic-dependent species and/or critical habitat in your action area, you must skip to [Section V](#), Evaluation of Discharge Effects, below.
- If there are no aquatic or aquatic-dependent species, you may skip to [Section VI](#) and verify that your activities will have no likely adverse effects. You must submit this form to EPA as specified in [Section VII](#) of this form. You may select criterion C on your NOI and may submit your NOI for permit coverage 30 days after you have submitted this completed form. You must also provide a description of the basis for the criterion you selected on your NOI form, **including the species and critical habitat list(s)**, and any other documentation supporting your eligibility. You must also include this completed Criterion C Eligibility Form in your SWPPP.
- **If any of the above are not true**, you cannot conclude that your discharge-related activities will have no likely adverse effects. You must complete the rest of this form (if applicable) and must submit the form to EPA for assistance in determining your eligibility for coverage.

Section V. Evaluation of Discharge Effects

Note: You are only required to fill out this section if your facility's action area includes aquatic and/or aquatic-dependent species and/or their critical habitat.

In this section, you will evaluate the likelihood of adverse effects from your facility's discharges. The scope of effects to consider will vary with each facility and species/critical habitat characteristics. The following are examples of discharge effects you should consider:

- **Hydrological Effects.** Stormwater discharges may adversely affect receiving waters by causing changes in water quality parameters such as turbidity, temperature, salinity, or pH. Stormwater discharges may adversely affect the immediate vicinity of the discharge point through streambank erosion and scour. These effects will vary with the amount of stormwater discharged and the volume and condition of the receiving water. Where a stormwater discharge constitutes a minute portion of the total volume of the receiving water, adverse hydrological effects are less likely.

- *Toxicity of Pollutants.* Pollutants in stormwater may have toxic effects on listed species and may adversely affect critical habitat. Exceedances of benchmarks, effluent limitation guidelines, or state or tribal water quality requirements may be indicative of potential adverse effects on listed species or critical habitat. However, some listed species may be adversely affected at pollutant concentrations below benchmarks, effluent limitation guidelines, and state or tribal water quality standards due to exposures to multiple stressors at the same time. In addition, stormwater pollutants identified in Part 6.2.3.2 of your SWPPP, but not monitored as benchmarks or effluent limitation guidelines, may also adversely affect listed species and critical habitat.

As these effects are difficult to analyze for listed species, their prey, habitat, and designated critical habitat, this form helps you to analyze your discharges to make a determination of whether your discharges will likely have adverse effects and whether there are any additional controls you can implement to ensure no likely adverse effects.

A. Evaluation of Pollutants and Controls to Avoid Adverse Effects. In this section, you must document all of your pollutant sources and pollutants expected to be discharged in stormwater (see Part 8). You must also document the controls you will implement to avoid adverse effects on listed aquatic and aquatic-dependent species and critical habitat. You must include specific details about the expected effectiveness of the controls in avoiding adverse effects to the listed aquatic-and aquatic-dependent species and critical habitat. Attach additional pages if needed.

Potential Pollutant Source	Potential Pollutants	Controls to Avoid Adverse Effects on Listed Aquatic and Aquatic-Dependent Species and Critical Habitat. Include information supporting why the control(s) will ensure no adverse effects, including any data you have about the effectiveness of the control(s) in reducing pollutant concentrations. You may also attach photos of your controls to this form
e.g., vehicle and equipment fueling	e.g., <ul style="list-style-type: none"> • Oil & grease • Diesel • Gasoline • TSS • Antifreeze 	e.g., <ul style="list-style-type: none"> • Fueling operators (including the transfer of fuel from tank trucks) will be conducted on an impervious or contained pad or under cover • Drip pans will be used where leaks or spills of fuel can occur and where making and breaking hose connections • Spill kit will be kept on-site in close proximity to potential spill areas • Any spills will be cleaned-up immediately using dry clean-up methods • Stormwater runoff will be diverted around fueling areas using diversion dikes and curbing

Potential Pollutant Source	Potential Pollutants	Controls to Avoid Adverse Effects on Listed Aquatic and Aquatic-Dependent Species and Critical Habitat.

☐ Check if you are not able to make a preliminary determination that any of your pollutants will be controlled to a level necessary to avoid adverse effects on aquatic and/or aquatic-dependent listed species and their designated critical habitat. You must check in [Section VI](#) that you are unable to make a determination of no likely adverse effects and must complete the rest of the form. You must submit your completed form to EPA for assistance in determining your eligibility for coverage.

B. Analysis of Effects Based on Past Monitoring Data. Select which of the following applies to your facility:

- ☐ I have no previous monitoring data for my facility because there are no applicable monitoring requirements for my facility's sector(s).
- ☐ I have no previous monitoring data for my facility because I am a new discharger or a new source, but I am subject to monitoring under the 2021 MSGP. You must provide information to support a conclusion that your facility's discharges are not expected to result in benchmark or numeric effluent limit exceedances that will adversely affect listed species or their critical habitat:
- ☐ My facility has not had any exceedances under the 2015 MSGP of any required benchmark(s) or numeric effluent limits. I comply with the applicable monitoring requirements and have not had any exceedances
- ☐ My facility has had exceedances of one or more benchmark(s) or numeric effluent limits under the 2015 MSGP, but I have addressed them during my coverage under the 2015 MSGP, or in my evaluation of controls to avoid adverse effects in (A) above. Describe all actions (including specific controls) that you will implement to ensure that the pollutants in your discharge(s) will not result in likely adverse effects from future exceedances.
- ☐ Check if your facility has had exceedances of one or more benchmarks or numeric effluent limits under the 2015 MSGP and you have not been able to address them to avoid adverse effects from future exceedances, or if you are a new discharger or a new source but you are not sure if you can avoid adverse effects from possible exceedances. You must check in [Section VI](#) that you are unable to make a determination of no likely adverse effects. You must submit your completed form to EPA for assistance in determining your eligibility for coverage. You may not file your NOI for permit coverage until you are able to make a determination that your discharges will avoid adverse effects on listed species and designated critical habitat.

Section VI. Verification of Preliminary Effects Determination

Based on Steps I – V of this form, you must verify your preliminary determination of effects on listed species and designated critical habitat from your discharges and/or discharge-related activities:

- ☐ Following the applicable Steps in I – V above, I have provided information supporting a preliminary determination that my discharges and/or discharge-related activities are not likely to adversely affect listed species and designated critical habitats.
- ☐ Following the applicable Steps in I – V above, I am not able to provide information supporting a preliminary determination that my discharges and/or discharge-related activities are not likely to adversely affect listed species and designated critical habitats.

I. Certification Information

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.

First Name, Middle, Last Name

Title

Signature: Date:

E-mail:

Section VII. Criterion C Eligibility Form Submission Instructions

Only if the applicable EPA Regional Office has granted you a waiver from electronic reporting, you must submit this completed form to EPA at msgpesa@epa.gov, including any attachments and any additional information that demonstrates how you will avoid or eliminate adverse effects to listed threatened and endangered species or designated critical habitat (e.g., specific controls you will implement to avoid or eliminate adverse effects). **Any missing or incomplete information may result in a delay of your coverage under the permit.**

If you have made a preliminary determination that your discharges and/or discharge-related activities are not likely to adversely affect listed species and critical habitat, this form must be submitted a minimum of 30 days prior to submitting your NOI for permit coverage under criterion C. Please note that during either the 30-day Criterion C Eligibility Form review period prior to your NOI submission, or within 30 days after your NOI submission and before you have been authorized for permit coverage, EPA may advise you that additional information is needed, or that there are additional measures you must implement to avoid likely adverse effects.

If you are unable to make a preliminary determination that your discharges and/or discharge-related activities are not likely to adversely affect listed species and critical habitat, this worksheet must be submitted to EPA, but you may not file your NOI for permit coverage until you have received a determination from EPA that your discharges and/or discharge-related activities are not likely to adversely affect listed species and critical habitat.

Attachment 1

Include a **map and a written description** of the action area of your facility, as required in Step 2 of Section E.4 of Appendix E. You may choose to include the map that is generated from the FWS' on-line mapping tool IPaC (the Information, Planning, and Consultation System) located at <http://ecos.fws.gov/ipac/>.

The written description of your action area that accompanies your action area map must explain your rationale for the extent of the action area drawn on your map. For example, your action area written description may look something like this:

The action area for the (name of your facility)'s stormwater discharges extends downstream from the outfall(s) in (name of receiving waterbody) (# of meters/feet/kilometers/miles). The downstream limit of the action area reflects the approximate distance at which the discharge waters and any pollutants would be expected to cause potential adverse effects to listed species and/or critical habitat because (insert rationale). The action area does/does not extend to the (name of receiving waterbody)'s confluence with (name of confluence waterbody) because (insert rationale).

Note that your action area written description will be highly site-specific, depending on the expected effects of your facility's discharges and discharge-related activities, receiving waterbody characteristics, etc.

Attachment 2

List or attach the list(s) of species and critical habitat in your action area on this sheet, as required in Step 3 of Section E.4 of Appendix E. You must include a list for applicable listed NMFS and USFWS species and critical habitat. If there are listed species and/or critical habitat for only one Service, you must include a statement confirming there are no listed species and/or critical habitat for the other Service. For USFWS species, include the USFWS Official Species List full printout from your IPaC query (including the consultation code and event code at the top of the FWS printout). *Note: If your Official Species List from the USFWS indicated no species or critical habitat were present in your action area, include the consultation code and event code that can be found at the top of your Official Species List in your NOI basis statement. If an Official Species List was not available on IPaC, list the contact date, the ecological services field office and the name of the Service staff with whom you corresponded to identify the existence of any USFWS species or critical habitat present in your action area.*

Paperwork Reduction Act Notice

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2040-0300). Responses to this collection of information are mandatory (40 CFR 122.26). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information is estimated to range from 2.5 to 3 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Appendix F - Procedures Relating to Historic Properties Preservation

F.1 Background

Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to take into account the effects of Federal “undertakings”, such as the issuance of this permit, on historic properties that are either listed or eligible for listing on the National Register of Historic Places. To address any issues relating to historic properties in connection with the issuance of this permit, EPA has developed the screening process in this appendix that enables facility operators to appropriately consider the potential impacts, if any, from the installation of stormwater controls that involve subsurface disturbance, on historic properties and to determine whether actions can be taken, if applicable, to mitigate any such impacts. Although the coverage of individual industrial facilities under this permit does not constitute separate Federal undertakings, the screening process in this appendix provides an appropriate site-specific means of addressing historic property issues in connection with EPA’s issuance of the permit.

Before an operator is eligible for coverage under the 2020 MSGP (unless otherwise noted, all references to “eligible” or “eligibility” refer only to coverage under the 2020 MSGP), the operator must meet one of the certification criteria related to historic properties included in the permit. In the event an operator cannot meet any of the certification criteria included in the permit relating to historic properties, the operator must apply for an individual permit.

You must meet one or more of the four criteria (A-D), which are also included in Part 1.1.5, to be eligible for coverage under this permit.

Activities with No Potential to Have an Effect on Historic Properties

A determination that a Federal undertaking has no potential to have an effect on historic properties fulfills an agency’s obligations under the NHPA. EPA has reason to believe that the vast majority of activities authorized under the MSGP have no potential to have effects on historic properties. The purpose of this permit is to control pollutants that may be transported in stormwater runoff from industrial facilities. EPA does not anticipate effects on historic properties from the pollutants in the stormwater and allowable non-stormwater discharges from these industrial facilities. Thus, to the extent EPA’s issuance of this general permit authorizes discharges of such constituents, confined to existing stormwater channels or natural drainage areas; the permitting action does not have the potential to cause effects on historic properties.

In addition, the overwhelming majority of sources covered under this permit will be facilities that are seeking renewal of previous permit coverage. These existing dischargers should have already addressed NHPA issues in the 2015 MSGP as they were required to certify that they were either not affecting historic properties or they had obtained written agreement from the applicable State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO)

Key Terms

Historic Property – Prehistoric or historic districts, sites, buildings, structures, or objects that are included in or eligible for inclusion in the National Register of Historic Places, including artifacts, records, and remains that are related to and located within such properties.

ACHP – Advisory Council on Historic Preservation: an independent Federal agency.

SHPO – The State Historic Preservation Officer for a particular state.

THPO or Authorized Tribal Representative – The Tribal Historic Preservation Officer for a particular Tribe, or if there is no THPO, the representative designated by such Tribe for NHPA purposes. Historic properties could have significance to more than one Indian tribe; therefore, all Indian tribes that attach religious and cultural significance to a historic property must be identified and included in the historic properties screening process.

Area of Potential Effects (APE) – The geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

regarding methods of mitigating potential impacts. Both existing and new dischargers must follow the historic property screening procedures to determine their eligibility. Therefore, to the extent this permit authorizes renewal of prior coverage without relevant changes in operations, it has no potential to have an effect on historic properties.

Activities with Potential to Have an Effect on Historic Properties

EPA believes this permit may have some potential to have an effect on historic properties where permittees construct and/or install stormwater control measures that involve subsurface disturbance and impact less than one (1) acre of land to comply with this permit. (Ground disturbances of one (1) acre or more require coverage under a different permit, the Construction General Permit.) Where you have to disturb the land through the construction and/or installation of control measures, there is a possibility that artifacts, records, or remains associated with historic properties could be impacted. Therefore, if you are establishing new or altering existing control measures to manage your stormwater that will involve subsurface ground disturbance of less than one (1) acre, you will need to ensure (1) that historic properties will not be impacted by your activities or (2) that you have consulted with the appropriate SHPO, THPO, or other tribal representative regarding measures that would mitigate or prevent any adverse effects on historic properties.

Examples of Control Measures Which Involve Subsurface Disturbance

EPA reviewed typical control measures currently employed to determine which practices involve some level of earth disturbance. The types of control measures that are presumptively expected to cause subsurface ground disturbance include:

- Dikes
- Berms
- Catch Basins
- Ponds
- Ditches
- Trenches
- Culverts
- Land manipulation: contouring, sloping, and grading
- Channels
- Perimeter Drains
- Swales

EPA cautions dischargers that this list is non-inclusive. Other control measures that involve earth disturbing activities that are not on this list must also be examined for the potential to affect historic properties.

Historic Property Screening Process

You should follow the following screening process in order to certify your compliance with historic property eligibility requirements under this permit (see Part 1.1.5). The following four steps describe how applicants can meet the permit eligibility criteria for protection of historic properties under this permit:

Step One: Are you an existing facility that is resubmitting for certification under the 2021 MSGP?

If you are an existing facility you should have already addressed NHPA issues. To gain coverage under the 2015 MSGP, you were required to certify that you were either not affecting historic properties or had obtained written agreement from the relevant SHPO or THPO regarding methods of mitigating potential impacts. As long as you are not constructing or installing any new stormwater control measures then you have met eligibility Criterion A of the MSGP. After you submit your NOI, there is a 30-day waiting period during which the SHPO, THPO, or other tribal representative may review your NOI. The SHPO, THPO, or other tribal representative may request that EPA hold up authorization based on concerns about potential adverse impacts to historic properties. EPA will evaluate any such request and notify you if any additional measures to address adverse impacts to historic properties are necessary.

If you are an existing facility and will construct or install stormwater control measures that will disturb less than one (1) acre, then you should proceed to Step Three. (Note: Stormwater discharges from your facility associated with construction activity disturbing one acre or more, or that are part of a larger common plan of development or sale if the larger common plan will ultimately disturb one acre or more, are not covered under the 2021 MSGP unless in conjunction with mining activities or certain oil and gas extraction activities as specified in Sectors G, H, I, and J of this permit.) Construction activities disturbing one (1) acre or more are not eligible for coverage under this permit and may seek separate coverage under the Construction General Permit (CGP).)

If you are a new facility then you should proceed to Step Two.

Step Two: Are you constructing or installing any stormwater control measures that require subsurface disturbance, and that disturbance will be less than one (1) acre? (Note: Stormwater discharges from your facility associated with construction activity disturbing one acre or more, or that are part of a larger common plan of development or sale if the larger common plan will ultimately disturb one acre or more, are not covered under the 2021 MSGP unless in conjunction with mining activities or certain oil and gas extraction activities as specified in Sectors G, H, I, and J of this permit.) Construction activities disturbing one (1) acre or more are not eligible for coverage under this permit and may seek separate coverage under the Construction General Permit (CGP)).

If, as part of your coverage under this permit, you are not building or installing control measures on your site that cause less than one (1) acre of subsurface disturbance, then your discharge-related activities do not have the potential to have an effect on historic properties. You have no further obligations relating to historic properties. You have met eligibility Criterion A of the MSGP. After you submit your NOI, there is a 30-day waiting period during which the SHPO, THPO, or other tribal representative may review your NOI. The SHPO, THPO, or other tribal representative may request that EPA hold up authorization based on concerns about potential adverse impacts to historic properties. EPA will evaluate any such request and notify you if any additional measures to address adverse impacts to historic properties are necessary.

If the answer to the Step Two question is yes, then you should proceed to Step Three.

Step Three: Have prior earth disturbances determined that historic properties do not exist, or have prior disturbances precluded the existence of historic properties?

If previous construction either revealed the absence of historic properties or prior disturbances preclude the existence of historic properties, then you have no further obligations relating to historic properties. You have met eligibility Criterion B of the MSGP. After you submit your NOI, there is a 30-day waiting period during which the SHPO, THPO, or other tribal representative may

review your NOI. The SHPO, THPO, or other tribal representative may request that EPA hold up authorization based on concerns about potential adverse impacts to historic properties. EPA will evaluate any such request and notify you if any additional measures to address adverse impacts to historic properties are necessary.

If the answer to the Step Three question is no, then you should proceed to Step Four.

Step Four: Contact the appropriate historic preservation authorities

Where you are building and/or installing control measures affecting less than one (1) acre of land to control stormwater or authorized non-stormwater discharges associated with this permit, and the answer to Step Three is no, then you should contact the relevant SHPO, THPO, or other tribal representative to determine the likelihood that artifacts, records, or remains are potentially present on your site. This may involve examining local records to determine if historic artifacts have been found in nearby areas, as well as limited surface and subsurface examination carried out by qualified professionals.

If through this process it is determined that such historic properties potentially exist and may be impacted by your construction or installation of control measures, you should contact the relevant SHPO, THPO, or tribal representative in writing and request to discuss mitigation or prevention of any adverse effects. The letter should describe your facility, the nature and location of subsurface disturbance activities that are contemplated, any known or suspected historic properties in the area, and any anticipated effects on such properties. The letter should state that if the SHPO, THPO, or tribal representative does not respond within 30 days of receiving your letter, you may submit your NOI without further consultation. EPA encourages applicants to contact the appropriate authorities as soon as possible in the event of a potential adverse effect to an historic property.

If the SHPO, THPO, or tribal representative sent you a response within 30 days of receiving your letter and you enter into, and comply with, a written agreement with the SHPO, THPO, or other tribal representative regarding how to address any adverse impacts on historic properties, you have met eligibility Criterion C. In this case, you should retain a copy of the written agreement consistent with Part 6.2.6.2 of the MSGP. After you submit your NOI, there is a 30-day waiting period during which the SHPO, THPO, or other tribal representative may review your NOI. The SHPO, THPO, or other tribal representative may request that EPA delay authorization based on concerns about potential adverse impacts to historic properties. However, EPA would generally accept any written agreement as fully addressing such concerns unless new information was brought to the Agency's attention that was not considered in your previous discussions with the SHPO, THPO or other tribal representative.

If you receive a response within 30 days after the SHPO, THPO, or tribal representative received your letter and you consult with the SHPO, THPO or tribal representative regarding adverse impacts to historic properties and measures to mitigate them but an agreement cannot be reached between you and the SHPO, THPO, or other tribal representative, you have still met the eligibility for Criterion C. In this case you should include in your SWPPP a brief description of potential effects to historic properties, the consultation process, any measures you will adopt to address the potential adverse impacts, and any significant remaining disagreements between you and the SHPO, THPO or other tribal representative. After you submit your NOI, there is a 30-day waiting period during which the SHPO, THPO, or other tribal representative may review your NOI. The SHPO, THPO, or other tribal representative may request that EPA delay authorization based on concerns about potential adverse impacts to historic properties. EPA will evaluate any such request and notify you if any additional measures to address adverse impacts to historic properties are necessary.

If you have contacted the SHPO, THPO, or tribal representative in writing regarding your potential to have an effect on historic properties and the SHPO, THPO, or tribal representative did not respond within 30 days of receiving your letter, you have met eligibility Criterion D. You are advised to get a receipt from the post office or other carrier confirming the date on which your letter was received. In this case, you should submit a copy of your letter notifying the SHPO, THPO or tribal representative of potential impacts with your NOI. After you submit your NOI, there is a 30-day waiting period during which the SHPO, THPO, or other tribal representative may review your NOI. The SHPO, THPO, or other tribal representative may request that EPA hold up authorization based on concerns about potential adverse impacts to historic properties. EPA will evaluate any such request and notify you if any additional measures to address adverse impacts to historic properties are necessary.

Addresses for State Historic Preservation Officers and Tribal Historic Preservation Officers may be found on the Advisory Council on Historic Preservation's website (<https://ncshpo.org/directory/>). In instances where a Tribe does not have a Tribal Historic Preservation Officer, you should contact the appropriate Tribal government office when responding to this permit eligibility condition.

For more information about your State Historic Preservation Office (SHPO) or Tribal Historic Preservation Office (THPO), please visit the National Park Service (NPS) websites at:


SHPO: <https://www.nps.gov/subjects/nationalregister/state-historic-preservation-offices.htm>

THPO: https://www.nps.gov/history/tribes/Tribal_Historic_Preservation_Officers_Program.htm
https://grantsdev.cr.nps.gov/THPO_Review/index.cfm

Appendix G - Notice of Intent (NOI) Form

Part 7.2 requires you to use the NPDES eReporting Tool, or “NeT”, to prepare and submit your Notice of Intent (NOI). However, if the applicable EPA Regional office grants you a waiver to use a paper NOI form, and you elect to use it, you must complete and submit the following form.

Submission of this NOI constitutes notice that the operator identified in Section C of this form requests authorization to discharge pursuant to the NPDES Multi-Sector General Permit (MSGP) permit number identified in Section B of this form. Submission of this NOI also constitutes notice that the operator identified in Section C of this form meets the eligibility conditions of Part 1.1 of the MSGP for the facility identified in Section D of this form. To obtain authorization, you must submit a complete and accurate NOI form. Discharges are not authorized if your NOI is incomplete or inaccurate or if you were never eligible for permit coverage. Refer to the instructions at the end of this form to complete your NOI.

NPDES FORM 3510-6		UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 NOTICE OF INTENT (NOI) FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY UNDER THE NPDES MULTI-SECTOR GENERAL PERMIT	OMB No. 2040-0300 Exp. Date: 3/31/2024
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Submission of this Notice of Intent (NOI) constitutes notice that the operator identified in Section C of this form requests authorization to discharge pursuant to the NPDES Stormwater Multi-Sector General Permit (MSGP) permit number identified in Section B of this form. Submission of this NOI also constitutes notice that the operator identified in Section C of this form meets the eligibility conditions of Part 1.1 of the MSGP for the facility identified in Section D of this form. To obtain authorization, you must submit a complete and accurate NOI form. Discharges are not authorized if your NOI is incomplete or inaccurate or if you were never eligible for permit coverage. Refer to the instructions at the end of this form to complete your NOI.

A. Approval to Use Paper NOI Form

1. Have you been granted a waiver from electronic reporting from the EPA Regional Office*? ☐ YES ☐ NO

If yes, check which waiver you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date of approval:

Waiver granted: ☐ The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.

☐ The owner/operator has issues regarding available computer access or computer capability

Name of EPA staff person that granted the waiver:

Date approval obtained:

* Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper NOI form. If you have not obtained a waiver, you must file this form electronically using the NPDES eReporting Tool (NeT) at <http://water.epa.gov/polwaste/npdes/stormwater/Stormwater-eNOI-System-for-EPA-MultiSector-General-Permit.cfm>

B. Permit Information

NPDES ID (EPA Use Only):

1. Master Permit Number: (see Appendix C of the MSGP for the list of eligible master permit numbers)

2. Are you a new discharger or a new source as defined in Appendix A? ☐ YES ☐ NO (If yes, skip to Part C of this form).

3. If you are not a new discharger or a new source, have stormwater discharges from your facility been covered previously under an NPDES permit? ☐ YES ☐ NO

If yes, provide the NPDES ID if you had coverage under EPA's 2015 MSGP or the NPDES ID if you had coverage under an EPA individual permit:

4. Do you have a pending enforcement action related to industrial stormwater by EPA, a state, or a citizen (to include both notices of violation (NOVs) by EPA or a state and notices of intent to bring a citizen suit)? ☐ YES ☐ NO

C. Facility Operator Information

1. Operator Information:

Operator Name:

2. Mailing Address:

Street:

City: State: ZIP Code:

County or Similar Government Subdivision:

Phone: - - Ext.

E-mail:

2. Operator Point of Contact Information:

First Name, Middle Initial, Last Name

Title:

3. NOI Preparer Information (Complete if NOI was prepared by someone other than the certifier):

First Name, Middle Initial, Last Name

Organization:

Phone: - - Ext.

E-mail:

1. Facility Name:

2. Facility Address:

Street/Location:

City: State: ZIP Code:

County or Similar Government Subdivision:

3. Latitude/Longitude for the facility:

Latitude: ° N (decimal degrees) Longitude: ° W (decimal degrees)

Latitude/Longitude Data Source: ☐ Maps ☐ GPS ☐ Other

If you used a USGS topographic map, what was the scale?

Horizontal Reference Datum: ☐ NAD 27 ☐ NAD 83 ☐ WGS 84

4. Is your facility located on Indian Country lands? ☐ YES ☐ NO
If yes, provide the name of the Indian tribe associated with the area of Indian country (including name of Indian reservation, if applicable):

5. Are you requesting coverage under this NOI as a "federal operator" as defined in Appendix A? ☐ YES ☐ NO

6. What is the ownership type of the facility?

☐ Federal Facility (U.S. Government) ☐ Privately Owned Facility ☐ Municipality ☐ County Government

☐ Corporation ☐ State Government ☐ Tribal Government ☐ School District

☐ District ☐ Mixed Ownership (e.g., Public/Private) ☐ Municipal or Water District

7. Estimated area of industrial activity at your facility exposed to stormwater: (to the nearest quarter acre)

8. Sector-Specific Information

Identify the 4-digit Standard Industrial Classification (SIC) code or 2-letter Activity Code that best represents the products produced or services rendered for which your facility is primarily engaged, as defined in the MSGP, and the applicable sector and subsector of your primary industrial activity (See Appendix D):

Primary SIC Code OR Primary Activity Code:

Sector: Subsector:

Identify the applicable sector(s) and subsector(s), SIC codes, and activity codes of any co-located industrial activity for which you are requesting permit

Sector: Subsector: Sector: Subsector: Sector: Subsector:

Sector: Subsector: Sector: Subsector: Sector: Subsector:

If you are a Sector S (Air Transportation) facility, do you anticipate using 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? ☐ YES ☐ NO

If you are a Sector G (Metal Mining) facility, do you have discharges from waste rock and overburden piles? ☐ YES ☐ NO

Check the type of ore you mine at your facility:

☐ Tungsten Ore ☐ Nickel Ore ☐ Aluminum Ore ☐ Mercury Ore

☐ Iron Ore ☐ Platinum Ore ☐ Titanium Ore ☐ Vanadium Ore

☐ Molybdenum ☐ Uranium, Radium, and/or Vanadium Ore ☐ Ore not listed

9. Is your facility presently inactive and unstaffed and are there no industrial materials or activities exposed to stormwater?* ☐ YES ☐ NO

*The requirement for benchmark monitoring does not apply at a facility that is inactive and unstaffed, provided that there are no industrial materials or activities exposed to stormwater. Note that if your facility becomes inactive and unstaffed and/or industrial materials or activities become exposed to stormwater during the permit term, you must submit an NOI modification to reflect the change.

E. Discharge Information

1. By indicating "Yes" below, I confirm that I understand that the MSGP only authorizes the authorized stormwater discharges in Part 1.2.1 and the allowable non-stormwater discharges listed in Part 1.2.2. Any discharges not expressly authorized in this permit cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA, state, or local authorities after issuance of this permit via any means, including the Notice of Intent (NOI) to be covered by the permit, the Stormwater Pollution Prevention Plan (SWPPP), during an inspection, etc. If any discharges requiring NPDES permit coverage other than the authorized stormwater and non-stormwater discharges listed in Parts 1.2.1 and 1.2.2 will be discharged, they must be covered under another NPDES permit. ☐ YES

2. Federal Effluent Limitation Guidelines

Are you requesting permit coverage for any stormwater discharges subject to effluent limitation guidelines? ☐ YES ☐ NO

If yes, which effluent limitation guidelines apply to your stormwater discharges?

40 CFR Part/Subpart	Eligible Discharges	Affected MSGP Sector	New Source Date	Check if Applicable
Part 411, Subpart C	Runoff from material storage piles at cement manufacturing facilities	E	2/20/1974	<input type="checkbox"/>
Part 418 Subpart A	Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	C	4/8/1974	<input type="checkbox"/>
Part 423	Coal pile runoff at steam electric generating facilities	O	11/19/1982 10/8/1974 ¹	<input type="checkbox"/>
Part 429, Subpart I	Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	A	1/26/1981	<input type="checkbox"/>
Part 436, Subpart B, C, or D	Mine dewatering discharges at crushed stone mines, construction sand and gravel mines, or industrial sand mines	J	N/A	<input type="checkbox"/>
Part 443, Subpart A	Runoff from asphalt emulsion facilities	D	7/28/1975	<input type="checkbox"/>
Part 445, Subparts A & B	Runoff from hazardous waste and non-hazardous waste landfills	K, L	2/2/2000	<input type="checkbox"/>
Part 449	Runoff containing urea from airfield pavement deicing at existing and new primary airports with 1,000 or more annual non-propeller aircraft departures	S	6/15/2012	<input type="checkbox"/>

¹NSPS promulgated in 1974 were not removed via the 1982 regulation; therefore, wastewaters generated by Part 423-applicable sources that were New Sources under the 1974 regulations are subject to the 1974 NSPS.

3. Receiving Waters Information: (Attach a separate list if necessary)

List all of the stormwater discharge points from your facility. Each discharge point must be identified by a unique 3-digit ID (e.g., 001, 002). Also provide the latitude and longitude in degrees decimal for each discharge point.		For each outfall, provide the following receiving water information:						
Discharge Point ID	Latitude	Longitude	Provide the name of the first water of the U.S. that receives stormwater directly from the discharge point and/or from the MS4 that the outfall discharges to:	If the receiving water is impaired (on the CWA 303(d) list), list the pollutants that are causing the impairment:	If a TMDL has been completed for this receiving waterbody, providing the following information:	Is this receiving water saltwater or freshwater?	Is this receiving water designated by the state or tribal authority under its antidegradation policy as a Tier 2 (or Tier 2.5) water (water quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water) or as a Tier 3 water (Outstanding National Resource Water)?	For freshwater discharges from operators in subsectors K1 and G2 only: is this receiving water still/standing (lentic) (e.g., lake or impoundment) or flowing (lotic) (e.g., river or stream)?
Discharge Point ID					TMDL ID: _____ Pollutants for which there is a TMDL: _____	<input type="checkbox"/> Freshwater <input type="checkbox"/> Saltwater	<input type="checkbox"/> Tier 2/2.5 <input type="checkbox"/> Tier 3 (Outstanding National Resource Waters)*	<input type="checkbox"/> Still/standing <input type="checkbox"/> Flowing
Latitude								
Longitude								
Discharge Point ID					TMDL ID: _____ Pollutants for which there is a TMDL: _____	<input type="checkbox"/> Freshwater <input type="checkbox"/> Saltwater	<input type="checkbox"/> Tier 2/2.5 <input type="checkbox"/> Tier 3 (Outstanding National Resource Waters)*	<input type="checkbox"/> Still/standing <input type="checkbox"/> Flowing
Latitude								
Longitude								
If substantially identical to other discharge point, list identical discharge point ID: _____								
Discharge Point ID					TMDL ID: _____ Pollutants for which there is a TMDL: _____	<input type="checkbox"/> Freshwater <input type="checkbox"/> Saltwater	<input type="checkbox"/> Tier 2/2.5 <input type="checkbox"/> Tier 3 (Outstanding National Resource Waters)*	<input type="checkbox"/> Still/standing <input type="checkbox"/> Flowing
Latitude								
Longitude								

If substantially identical to other discharge point, list identical discharge point ID: _____

*Note: You are ineligible for coverage if you are a new discharger or new source to waters designated as Tier 3 (Outstanding National Resource Waters) for antidegradation purposes under 40 CFR 131.13(a)(3).

4. Provide the following Information about your discharge point latitude/longitude:

Latitude/Longitude Data Source:

If you used a USGS topographic map, what was the scale? _____

Horizontal Reference Datum: ☐ NAD 27 ☐ NAD 83 ☐ WGS 845. Does your facility discharge into a Municipal Separate Storm Sewer System (MS4)? ☐ YES ☐ NO

If yes, provide the name of the MS4 operator: _____

6. If you are subject to benchmark monitoring requirements for a hardness-dependent metal, what is the hardness of your receiving water(s) (see Appendix J)? _____ (mg/L)

7. For facilities in EPA Region 10: Does your facility discharge to a federal CERCLA site listed in Appendix P? ☐ YES ☐ NO7.a. If yes, did you notify the EPA Regional Office in advance of filing your NOI, and did the EPA Regional Office determine that you are eligible for permit coverage pursuant to Part 1.1.7*? ☐ YES ☐ NO

*** Note: If you discharge to a federal CERCLA site listed in Appendix P, you are ineligible for coverage under this permit unless you notify the EPA Regional Office in advance and the EPA Regional Office determines you are eligible coverage under this permit. In determining your eligibility for coverage under this Part, the EPA Regional Office may evaluate whether you have included adequate controls and/or procedures to ensure that your discharges will not lead to recontamination of aquatic media at the CERCLA Site such that it will cause or contribute to an exceedance of a water quality standard.**

8. For operators in New Mexico only: Do you anticipate the discharge of groundwater or spring water from your facility? ☐ YES ☐ NO

*If yes, below you are asked to provide information on flow and potential to encounter impacted ground or spring water such that there is a potential for contamination. If potential for contamination exists, you will be asked to provide test result data to EPA Region 6 and the NMED Surface Water Quality Bureau. If the test data exceed State Water Quality Standards, the ground or spring water cannot be discharged from the facility into surface waters under this permit. Discharge to surface waters must be conducted under a separate NPDES individual permit to ensure proper treatment and disposal. If disposal will be to the ground surface or in an unlined pond, you must submit a Notice of Intent to Discharge (NOI) to the NMED Ground Water Quality Bureau. For further assistance determining whether your facility may encounter impacted groundwater, the permittee may contact the NMED Ground Water Quality Bureau at (505) 827-2965.

8.a. If yes, what is the anticipated flow rate of the groundwater or spring water? _____

8.b. Provide information on the potential to encounter impacted ground or spring water in the space provided below:

8.c. Using the Mapper tool located at <https://gis.web.env.nm.gov/oem/> for reference, check if the following groundwater pollutant sources are located nearby the anticipated source of groundwater or spring water such that there is potential for contamination:

Project Location Relative to a Source of Potential Groundwater Contamination	Constituents likely to be required for testing	Check if applicable
Within 0.5 mile of an open Leaking Tank site	BTEX (Benzene, Toluene, Ethylbenzene, and Xylene) plus additional parameters depending on site conditions.	<input type="checkbox"/>
Within 0.5 mile of an open Voluntary Remediation site	All parameters listed in 20.6.4.900 NMAC, hardness and pH (or an alternate list approved by the NMED SWQB)	<input type="checkbox"/>
Within 0.5 mile of an open RCRA Corrective Action site	All parameters listed in 20.6.4.900 NMAC, hardness and pH (or an alternate list approved by the NMED SWQB)	<input type="checkbox"/>
Within 0.5 mile of an open Abatement site	All parameters listed in 20.6.4.900 NMAC, hardness and pH (or an alternate list approved by the NMED SWQB)	<input type="checkbox"/>
Within 0.5 mile of an open Brownfield site	All parameters listed in 20.6.4.900 NMAC, hardness and pH (or an alternate list approved by the NMED SWQB)	<input type="checkbox"/>
Within 1.0 mile of a Superfund site with associated groundwater contamination	All parameters listed in 20.6.4.900 NMAC, hardness and pH (or an alternate list approved by the NMED SWQB)	<input type="checkbox"/>

EPA approved-sufficiently sensitive methods must be used – approved methods are listed in 40 C.F.R. 136.3.

8.d. If any of the above are applicable, provide a summary of test data indicating the quality of the groundwater or spring water to be discharged:

1. Has the SWPPP been prepared in advance of filing this NOI, as required?

2. SWPPP Contact Information:

First Name, Middle Initial, Last Name:

Professional Title:

Phone: - - Ext.

E-mail:

3. SWPPP Availability:

Your current SWPPP or certain information from your SWPPP must be made available through one of the following two options. Select one of the options and provide the required information*:

* Note: You are not required to post any confidential business information (CBI) or restricted information (as defined in Appendix A) (such information may be redacted), but you must clearly identify those portions of the SWPPP that are being withheld from public access.

☐ **Option 1:** Maintain a current copy of your SWPPP on an Internet page (Universal Resource Locator or URL).

Provide the web address URL:

A.	Describe your onsite industrial activities exposed to stormwater (e.g., material storage; equipment fueling, maintenance, and cleaning; cutting steel beams), and potential spill and leak areas:
B.	List the pollutant(s) or pollutant constituent(s) associated with each industrial activity exposed to stormwater that could be discharged in stormwater and any authorized non-stormwater discharges listed in Part 1.2.2:
C.	Describe the control measures you will employ to comply with the non-numeric technology-based effluent limits required in Part 2.1.2 and Part 8, and any other measures taken to comply with the requirements in Part 2.2 Water Quality-Based Effluent Limitations (see Part 6.2.4):
D.	Provide a schedule for good housekeeping and maintenance (see Part 6.2.5.1) and a schedule for all inspections required in Part 3 (see Part 6.2.5.2):

Using the instructions in Appendix E of the MSGP and the Criterion Selection Worksheet in Appendix E, Part E.4, under which criterion listed below are you eligible for coverage under this permit?*

You must consider Endangered Species Act listed (ESA-listed) threatened or endangered species and/or designated critical habitat(s) under the jurisdiction of both the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) and check only the 1 box that is the most conservative criterion that applies to your facility stormwater discharge.

*Note: You must use the information from the [USFWS IPaC](#) and [NMFS Species Directory](#) (see MSGP Appendix E, Part E.4, Step 2 and 3) when determining the presence of ESA-listed species and critical habitat. Attaching aerial image(s) of the site to this NOI is helpful to EPA, USFWS, and NMFS in confirming eligibility under this criterion. Please Note: NMFS' jurisdiction includes ESA-listed marine and estuarine species that spawn in inland rivers.

After you submit your NOI and before your NOI is authorized, EPA may notify you if any additional controls are necessary to ensure your discharges have no likely adverse effects on ESA-listed species and critical habitat.

<input type="checkbox"/>	<p>A. No ESA-listed species and/or critical habitat present in action area. No ESA-listed species and designated critical habitat(s) are likely to occur in your facility's "action area" as defined in Appendix A. You must provide a description below of the basis for selecting this criterion and provide documentation supporting your eligibility determination in your SWPPP. [Basis statement content: A basis statement supporting the selection of this criterion should identify the USFWS and NMFS information sources used. State resources are not acceptable. Attaching aerial image(s) of the site to this NOI is helpful to EPA, USFWS, and NMFS in confirming eligibility under this criterion. Note that NMFS' jurisdiction includes ESA-listed marine and estuarine species that spawn in inland rivers.]</p>
<input type="checkbox"/>	<p>B. Eligibility requirements met by another operator under the 2021 MSGP. Your industrial activity's discharges and discharge-related activities were already addressed in another operator's valid certification of eligibility for your "action area" under eligibility criteria A, C, D, or E of the 2021 MSGP and you have confirmed that no additional ESA-listed species and designated critical habitat not considered in that certification may be present or located in the "action area" (e.g., due to a new species listing or critical habitat designation). To certify your eligibility under this criterion, there must be no lapse of NPDES permit coverage in the other 2021 MSGP operator's certification. By certifying eligibility under this criterion, you must comply with any conditions upon which the other operator's certification was based. You must include in your NOI the NPDES ID assigned to the other 2021 MSGP operator's authorization under this permit. If your certification is based on another 2021 MSGP operator's certification under criterion C, you must provide EPA with the relevant supporting information required (i.e., permit tracking number, industrial activity SWPPP, a description of the basis for the criterion selected) in your NOI form. [Basis statement content: A basis statement supporting the selection of this criterion must identify the eligibility criterion of the other MSGP NOI, the authorization date, and confirmation that the authorization is effective.]</p> <p>If you select criterion B, provide the NPDES ID from the other operator's notification of authorization under this permit: _____</p>
<input type="checkbox"/>	<p>C(1). Facility eligible for Criterion C in the 2015 MSGP with NO CHANGE to listed species, critical habitat, or action area. Your facility was eligible for Criterion C in the 2015 MSGP and there has been no change in your facility's action area and you have confirmed that there are no additional threatened or endangered species or designated critical habitat under the jurisdiction of the USFWS and/or NMFS in your action area since your certification under Criterion C in the 2015 MSGP. You must provide a description of the basis of this criterion selected on your NOI form and provide documentation supporting your eligibility determination in your SWPPP. [Basis statement content: A basis statement supporting the selection of this criterion must provide the USFWS and/or NMFS resources consulted that helped you determine that there are no additional species and/or critical habitat under the jurisdiction of the Services in your action area.]</p>
<input type="checkbox"/>	<p>C(2). Facility eligible for Criterion C in the 2015 MSGP with CHANGES to listed species, critical habitat, or action area. Your facility was eligible for Criterion C in the 2015 MSGP, but there have been changes in your facility's action area, and/or there are additional threatened or endangered species and/or designated critical habitat under the jurisdiction of the USFWS and/or NMFS in your action area since your certification under Criterion C under the 2015 MSGP. You must provide a description of the basis of this criterion selected on your NOI form and provide documentation supporting your eligibility determination in your SWPPP. [Basis statement content: A basis statement supporting the selection of this criterion must identify the following:</p> <ol style="list-style-type: none"> 1. A description of the changes in the facility's action area (if applicable). 2. The USFWS and/or NMFS resources consulted that helped you determine that additional species and/or critical habitat have been listed/designated by either of the Services in your action area. 3. What ESA-listed species and/or designated critical habitat are located in your "action area". 4. Distance in miles between your site and the ESA-listed species and/or designated critical habitat within the action area (in miles, state "on site" if the ESA-listed species and/or designated critical habitat is within the area to be disturbed). 5. A description of EPA approved measures you will implement or will continue to implement to ensure no likely adverse effects on ESA-listed species and/or critical habitat.]
<input type="checkbox"/>	<p>C(3). ESA-listed species and/or designated critical habitat likely to occur, but discharges not likely to adversely affect them. ESA-listed threatened or endangered species or their designated critical habitat(s) under the jurisdiction of USFWS and/or NMFS are likely to occur in or near your facility's "action area," and you certify to EPA that your industrial activity's discharges and discharge-related activities are not likely to adversely affect ESA-listed and/or critical habitat. To certify your eligibility under this criterion, you must complete the Criterion C Eligibility Form, which you must submit to EPA at least 30 days prior to filing your NOI for permit coverage. After evaluation of your Criterion C Eligibility Form, EPA may require additional measures that you must implement to avoid or eliminate likely adverse effects on ESA-listed species and/or critical habitat from discharges and discharge-related activities. You may submit your NOI for permit coverage 30 days after submitting to EPA your completed Criterion C Eligibility Form. You must also provide a description of the basis for the criterion you selected on your NOI form and provide documentation supporting your eligibility determination in your SWPPP. [Basis statement content: A basis statement supporting the selection of this criterion must identify the following:</p> <ol style="list-style-type: none"> 1. The USFWS and NMFS information resources and expertise (e.g., state or federal biologists) used to arrive at this conclusion. Any supporting documentation should explicitly state that both ESA-listed species and designated critical habitat under the jurisdiction of the USFWS and/or NMFS were considered in the evaluation. 2. What ESA-listed species and/or designated critical habitat are located in your "action area". 3. Distance in miles between your site and the ESA-listed species and/or designated critical habitat within the action area (in miles, state "on site" if the ESA-listed species and/or designated critical habitat is within the area to be disturbed). 4. A description of EPA approved measures you will implement to ensure no likely adverse effects on ESA-listed species and/or critical habitat 5. A statement affirming that "I submitted my completed Criterion C Eligibility Form to EPA at least 30 days prior to submitting this NOI and agree to implement any additional measures that were determined by EPA to be necessary to ensure that my discharges and/or discharge-related activities will not have likely adverse effects on listed species and critical habitat." 6. Date you sent completed Criterion C Eligibility form to EPA.]
<input type="checkbox"/>	<p>D. ESA Section 7 consultation has successfully concluded. Consultation between a Federal Agency and the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service under section 7 of the Endangered Species Act has concluded. The consultation must have addressed the effects of the facility's discharges and discharge-related activities on ESA-listed species and/or designated critical habitat under the jurisdiction of USFWS and/or NMFS. To certify eligibility under this criterion, indicate the result of the consultation:</p> <ol style="list-style-type: none"> 1. A biological opinion and/or conference opinion that concludes that the action in question (taking into account the effects of your facility's discharges and discharge-related activities) is not likely to jeopardize the continued existence of ESA-listed species, or result in the destruction or adverse modification of designated critical habitat; or

If eligible under Criterion D, you must also provide supporting documentation for your determination in your NOI and SWPPP, including the Biological Opinion (or ECO tracking number) or concurrence letter. You must include copies of the correspondence between yourself and the USFWS and/or NMFS in your SWPPP and your NOI. **[Basis statement content: A basis statement supporting the selection of this criterion should identify the federal action agency(ies) involved, the field office/regional office(s) providing that consultation, any tracking numbers of identifiers associated with that consultation (e.g., IPaC number, ECO number), and the date the consultation was completed.]**

Instructions for Completing EPA Form 3510-6

**Notice of Intent (NOI) for Stormwater Discharges
Associated with Industrial Activity Under the NPDES Multi-Sector General Permit**

This Form Replaces Form 3510-6 (06/15) Form Approved OMB No. 2040-0300

Who Must File an NOI Form

Under section 402(p) of the Clean Water Act (CWA) and regulations at 40 CFR Part 122, stormwater discharges associated with industrial activity are prohibited to waters of the United States unless authorized under a National Pollutant Discharge Elimination System (NPDES) permit. You can obtain coverage under the MSGP by submitting a completed Notice of Intent (NOI) if you are an operator of a facility:

- that is located in a jurisdiction where EPA is the permitting authority, listed in Appendix C of the MSGP;
- that discharges stormwater associated with industrial activities, identified in Appendix D of the MSGP;
- that meets the eligibility requirements in Part 1.1 of the permit;
- that has developed a stormwater pollution prevention plan (SWPPP) in accordance with Part 6 of the MSGP; and
- that installs and implements control measures in accordance with Part 2 and Part 8 to meet numeric and non-numeric effluent limits.

Completing the Form

Obtain and read a copy of the 2021 MSGP, viewable at <http://water.epa.gov/polwaste/npdes/stormwater/EPA-Multi-Sector-General-Permit-MSGP.cfm>. To complete this form, type or print, using uppercase letters, in the appropriate areas only. Please place each character between the marks. Abbreviate if necessary to stay within the number of characters allowed for each item. Use only one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. **Please submit original document with signature in ink - do not send a photocopied signature.**

Section A. Approval to Use Paper NOI Form

You must indicate whether you have been granted a waiver from electronic reporting from the EPA Regional Office. Note that you are not authorized to use this paper NOI form unless the EPA Regional Office has approved its use. Where you have obtained approval to use this form, indicate the waiver that you have been granted, the name of the EPA staff person who granted the waiver, and the date that approval was provided.

See <http://water.epa.gov/polwaste/npdes/stormwater/Stormwater-Contacts.cfm> for a list of EPA Regional Office contacts.

Section B. Permit Information

Provide the master permit number of the permit under which you are applying for coverage (see Appendix C of the general permit for the list of eligible master permit numbers).

You must indicate whether you are a new discharger or a new source (see Appendix A for the definitions). If you are not a new discharger or a new source, you must indicate whether stormwater discharges from your facility have been previously covered under another NPDES permit. If yes, you must provide the unique NPDES ID (i.e., permit tracking number) for the previous permit your facility was covered under.

You must also indicate whether you have a pending enforcement action by EPA, a state, or a citizen, related to industrial stormwater.

Section C. Facility Operator Information

Provide the legal name of the person, firm, public organization, or any other entity that operates the facility described in this NOI. An operator of a facility is the legal entity that controls the operation of the facility. Refer to Appendix A of the permit for the definition of "operator". Provide the operator's mailing address, phone number,

and e-mail. Correspondence for the NOI will be sent to this address. Also provide the name and title for the operator point of contact (note that the point of contact name may be the same as the operator name).

If the NOI was prepared by someone other than the certifier (for example, if the NOI was prepared by the facility SWPPP contact or a consultant for the certifier's signature), include the full name, organization, phone number, and e-mail address of the NOI preparer.

Section D. Facility Information

Enter the official or legal name and complete address, including city, state, ZIP code, and county or similar government subdivision of the facility. If the facility lacks a street address, indicate the general location of the facility (e.g., Intersection of State Highways 61 and 34). Complete facility information must be provided for permit coverage to be granted.

Provide the latitude and longitude of your facility in decimal degrees format. The latitude and longitude of your facility can be determined in several different ways, including through the use of global positioning system (GPS) receivers, U.S. Geological Survey (USGS) topographic or quadrangle maps. Refer to <http://transition.fcc.gov/mb/audio/bickel/DDDMSS-decimal.html/> for assistance in providing the proper latitude/longitude format. For consistency, EPA requests that measurements be taken from the approximate center of the facility. Specify which method you used to determine latitude and longitude. If a USGS topographic map is used, specify the scale of the map used. Enter the horizontal reference datum for your latitude and longitude. The horizontal reference datum used on USGS topographic maps is shown on the bottom left corner of USGS topographic maps; it is also available for GPS receivers.

Indicate whether the facility is on Indian country lands, and if so, provide the name of the Indian tribe associated with the area of Indian country (including name of Indian reservation, if applicable).

Indicate whether you are seeking coverage under this permit as a "federal operator" as defined in Appendix A. Also check the ownership type for the facility (e.g., Federal Facility, Privately Owned Facility, Municipality, County Government, Corporation, State Government, Tribal Government, School District, District, Mixed Ownership [e.g., public/private], Municipal or Water District).

Enter the estimated area of industrial activity at your facility exposed to stormwater to the nearest quarter acre.

Indicate whether, during coverage under this permit, there will be stormwater discharges from paved surfaces that will be sealed or re-sealed with coal-tar where industrial activities are located.

List the four-digit Standard Industrial Classification (SIC) code or two character activity code that best describes the primary industrial activities performed by your facility under which you are required to obtain permit coverage. Your primary industrial activity includes any activities performed on-site which are (1) identified by the facility's primary SIC code and included in the descriptions of 40 CFR 122.26(b)(14)(ii), (iii), (vi), or (viii); or (2) included in the narrative descriptions of 40 CFR 122.26(b)(14)(i), (iv), (v), (vii), or (ix). See Appendix D of the MSGP for a complete list of SIC codes and activities codes covered under the MSGP. Also provide the applicable sector and subsector associated with the SIC code or activity code for your primary industrial activities. For a complete list of sector and subsector codes, see Appendix D of the MSGP.

If your facility has co-located industrial activities that are not identified as your primary industrial activity, identify the sector, subsector, SIC, and

Instructions for Completing EPA Form 3510-6

**Notice of Intent (NOI) for Stormwater Discharges
Associated with Industrial Activity Under the NPDES Multi-Sector General Permit**

This Form Replaces Form 3510-6 (06/15) Form Approved OMB No. 2040-0300

For Sector A facilities (Timber Products), indicate whether you manufacture, use or store creosote or creosote treated wood in areas that are exposed to precipitation.

For Sector S facilities (Air Transportation), indicate whether you anticipate that the entire airport facility will 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. If so, additional effluent limits and monitoring conditions apply to your discharge (see Part 8.S of the permit).

For Sector G facilities (Metal Mining), check the type of ore(s) mined at the facility.

Indicate whether your facility is currently inactive and unstaffed. Note that if your facility becomes inactive and unstaffed and/or industrial materials or activities become exposed to stormwater during the permit term, you must submit an NOI modification to reflect the change.

Section E. Discharge Information

You must confirm that you understand that the MSGP only authorizes the allowable stormwater discharges listed in Part 1.2.1 and the allowable non-stormwater discharges listed in Part 1.2.2. Any discharges not expressly authorized under the MSGP are not covered by the MSGP or the permit shield provision of the CWA Section 402(k) and they cannot become authorized or shielded by disclosure to EPA, state, or local authorities via the NOI to be covered by the permit or by any other means (e.g., in the SWPPP or during an inspection). If any discharges requiring NPDES permit coverage other than the allowable stormwater and non-stormwater discharges listed in Parts 1.2.1 and 1.2.2 will be discharged, they must either be eliminated or covered under another NPDES permit.

Depending on your industrial activities, your facility may be subject to federal effluent limitation guidelines which include additional effluent limits and monitoring requirements for your facility. Please review these requirements, described in Part 2.1.3 of the MSGP, and check any appropriate boxes on the NOI form.

You must identify all the discharge points from your facility that discharge stormwater. Each outfall must be assigned a unique 3-digit ID (e.g., 001, 002, 003). You must also provide the latitude and longitude for each discharge point from your facility. Indicate whether any discharge points are substantially identical to a discharge point already listed, and identify the discharge point it is identical to. For each unique discharge point you list, you must specify the name of the first water of the U.S. that receives stormwater directly from the discharge point and/or from the MS4 that the discharge point discharges to. You must specify whether any receiving waters that you discharge to are listed as "impaired" as defined in Appendix A, and the pollutants for which the water is impaired. You must also check identify any Total Maximum Daily Loads (TMDL) that have been completed for any of the waters of the U.S. that you discharge to. For each unique discharge point you must indicate whether the receiving water is saltwater or freshwater, and indicate whether discharges from the facility will enter into a water of the U.S. that is designated as a Tier 2, Tier 2.5, or Tier 3 water. A list of Tier 2, 2.5, and 3 waters is provided as Appendix L. If the answer is "yes", name all waters designated as Tier 2, Tier 2.5, or Tier 3 to which the facility will discharge. Note that you are ineligible for coverage if you are a new discharger or a new source to waters designated as Tier 3 (outstanding national resource waters) for antidegradation purposes under 40 CFR 131.13(a)(3).

If your facility is in subsector K1 or G2, you must also indicate, for each unique discharge point, if the receiving water is still/standing (lentic) (e.g., a lake or impoundment) or flowing (lotic) (e.g., a river or stream).

You must also provide information about the discharge point latitude/longitude, including data source, the scale (if applicable), and the horizontal reference datum. See the instructions in Section D for more information about determining the latitude and longitude.

Identify whether your facility discharges into a Municipal Separate Storm Sewer System (MS4). If yes, provide the name of the MS4 operator. If you are uncertain of the MS4 operator, contact your local government for that information.

If you are subject to any benchmark monitoring requirements for metals (see the requirements applicable to your Sector(s) in Part 8 of the permit), indicate the hardness for your receiving water(s). See Appendix J of the permit for information about determining waterbody hardness.

If you are subject to benchmark monitoring requirements for hardness-dependent metals you must also answer whether your facility discharges into any saltwater receiving waters.

If our facility is located in EPA Region 10, indicate whether your facility will discharge to a federal CERCLA site listed in Appendix P. Note that if your facility will discharge into a federal CERCLA site listed in Appendix P, you are not eligible for coverage under this permit unless you notify the EPA Regional Office in advance and the EPA Regional Office authorizes coverage under this permit after you have included adequate controls and/or procedures designed to ensure that discharges will not lead to recontamination of aquatic media at the CERCLA site such that your discharge will cause or contribute to an exceedance of a water quality standard.

Operators in New Mexico, indicate whether you anticipate the discharge of groundwater or spring water from your facility. If yes, you must provide information on flow and potential to encounter impacted ground or spring water such that there is a potential for contamination. You must also use the mapper tool located at <https://gis.web.env.nm.gov/oem/> to determine if the groundwater sources listed are located near the anticipated source of groundwater or spring water such that there is potential for contamination. If potential for contamination exists, you must provide a summary of test data indicating the quality of the groundwater or spring water to be discharged.

Section F. Stormwater Pollution Prevention Plan (SWPPP) Information

All facilities eligible for coverage under this permit are required to prepare a SWPPP in advance of filing the NOI, in accordance with Part 6. Indicate whether the SWPPP has been prepared in advance of filing the NOI.

Indicate the contact information (name, phone, and e-mail) for the person who developed the SWPPP for this facility.

You identify how your SWPPP information will be made available, consistent with Part 5.4 and 7.3 of the permit. If you are making your SWPPP publicly available on a web site, check Option 1 and provide the appropriate Internet URL address. If you are not providing a URL, check Option 2 and provide the selected SWPPP information on this NOI form. You may copy and paste this information directly from your SWPPP.

Instructions for Completing EPA Form 3510-6

**Notice of Intent (NOI) for Stormwater Discharges
Associated with Industrial Activity Under the NPDES Multi-Sector General Permit**

This Form Replaces Form 3510-6 (06/15) Form Approved OMB No. 2040-0300

Section G. Endangered Species Protection

Using the instructions in Appendix E, indicate the Part 1.1.4.5 criterion (i.e., A, B, C, D, or E) you are eligible under with regard to the protection of federally listed endangered and threatened species and designated critical habitat. A description of the basis for the criterion selected must also be provided.

If criterion B is selected, provide the NPDES ID (i.e., permit tracking number) for the other operator who has certified their eligibility under this permit. The NPDES ID was assigned when the operator received coverage under this permit.

If criterion C is selected, you must specify the federally-listed species or designated critical habitat that are located in the "action area" of the facility. You must also indicate under which scenario you determined you were eligible to submit your NOI under criterion C using Appendix E, and answer any corresponding questions.

If criterion D or E is selected, attach copies of any communications between you and the U.S. Fish and Wildlife Service and National Marine Fisheries Service to this NOI.

Section H. Historic Preservation

If the project is not located in Indian country lands, indicate whether the project is located on a property of religious or cultural significance to an Indian tribe, and if so, provide the name of the Indian tribe associated with the property. Use the instructions in Appendix F to complete the questions on the NOI form regarding historic preservation.

Section I. Certification

Certification statement and signature (see Section B.11 of Appendix B of the MSGP for more information). Enter certifier's printed name, title and email address. Sign and date the form. (CAUTION: An unsigned or undated NOI form will prevent the granting of permit coverage.) Federal statutes provide for severe penalties for submitting false information on this application form. Federal regulations require this application to be signed as follows:

For a corporation: by a responsible corporate officer, which means: (i) 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 (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this Part, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA). Include the name and title of the person signing the form and the date of signing.

An unsigned or undated NOI form will not be considered eligible for permit coverage.

Modifying Your NOI

If you have been granted a waiver from your Regional Office from electronic reporting, and if after submitting your NOI you need to correct or update any fields on this NOI form, you may do so by indicating changes on this same form.

Paperwork Reduction Act Notice

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2040-0300). Responses to this collection of information are mandatory (40 CFR 122.26). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information is estimated to be 4.1 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Submitting Your Form

If you have been granted a waiver from your Regional Office to submit a paper NOI form, you must send your NOI by mail to one of the following addresses:

For Regular U.S. Mail Delivery:

Stormwater Notice Processing Center
Mail Code 4203M, ATTN: 2021 MSGP Reports
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460


For Overnight/Express Mail Delivery:

Stormwater Notice Processing Center
William Jefferson Clinton East Building - Room 7420
ATTN: 2021 MSGP Reports
U.S. EPA
1201 Constitution Avenue, NW
Washington, DC 20004

Visit this website for instructions on how to submit electronically:
<http://water.epa.gov/polwaste/npdes/stormwater/Stormwater-eNOI-System-for-EPAs-MultiSector-General-Permit.cfm>

Appendix H - Notice of Termination (NOT) Form

Part 7.2 requires you to use the NPDES eReporting Tool, or “NeT”, to prepare and submit your No Exposure Certification (NEC) form. However, if you are given a waiver by the EPA Regional Office to use a paper NEC form, and you elect to use it, you must complete and submit the following form.

NPDES FORM 3510-7		UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 NOTICE OF TERMINATION (NOT) FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY UNDER THE NPDES MULTI-SECTOR GENERAL PERMIT	OMB No. 2040-0300 Exp. Date: 3/31/2024
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Submission of this Notice of Termination constitutes notice that the operator identified in Section C of this form is no longer authorized to discharge pursuant to the NPDES Multi-Sector General Permit (MSGP) from the facility identified in Section D of this form. All necessary information must be included on this form. Refer to the instructions at the end of this form.

1. Have you been granted a waiver from electronic reporting from the EPA Regional Office*? ☐ YES ☐ NO

If yes, check which waiver you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date of approval:

Waiver granted: ☐ The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.

☐ The owner/operator has issues regarding available computer access or computer capability

Name of EPA staff person that granted the waiver:

Date approval obtained: / /

*** Note: You are required to obtain approval from the applicable Regional Office prior to using this paper NOT form. If you have not obtained a waiver, you must file this form electronically using the NPDES eReporting Tool (Net) at <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities>**

1. NPDES ID:

2. Reason for Termination (check one only):

☐ A new owner or operator has taken over responsibility for the facility.

☐ You have ceased operations at the facility, there are not or no longer will be discharges of stormwater associated with industrial activity from the facility, and you have already implemented necessary sediment and erosion controls as required by Part 2.1.2.5.

☐ You are a Sector G, H, or J facility and you have met the applicable termination requirements.

☐ You obtained coverage under an individual or alternative general permit for all discharges required to be covered by an NPDES permit.

1. Operator Name:

2. Mailing Address:

Street:

City: State: ZIP Code: -

3. Phone: - - Ext.

4. E-mail:

1. Facility Name:

2. Facility Address:

Street:

City: State: ZIP Code: -

County or Similar Government Subdivision:

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.

[illegible]

A horizontal number line with 20 equally spaced tick marks, labeled from 1 to 20.

Instructions for Completing EPA Form 3510-7

**Notice of Termination for Stormwater Discharges
Associated with Industrial Activity Under the NPDES Multi-Sector General Permit**

This Form Replaces Form 3510-7 (06/15) Form OMB No. 2040-0300

Who May File Notice of Termination (NOT) Form

Permittees currently covered by EPA's NPDES Stormwater Multi-Sector General Permit (MSGP or permit) must submit a Notice of Termination (NOT) within 30 days after one or more of the following conditions have been met:

- A new owner or operator has assumed responsibility for the facility;
- You have ceased operations at the facility and there are not or no longer will be discharges of stormwater associated with industrial activity from the facility and you have already implemented necessary sediment and erosion controls per Part 2.1.2.5;
- You are a Sector G, H, or J facility and you have met the applicable termination requirements; or
- You obtained coverage under an individual or alternative general permit for all discharges required to be covered by an NPDES permit.

See the MSGP Part 1.4.2 for more information.

Completing the Form

To complete this form, type or print, using uppercase letters, in the appropriate areas only. Please place each character between the marks. Abbreviate if necessary to stay within the number of characters allowed for each item. Use only one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. Please submit original document with signature in ink - do not send a photocopied signature.

Section A. Approval to Use Paper NOT Form

You must indicate whether you have been granted a waiver from electronic reporting from the EPA Regional Office. Note that you are not authorized to use this paper NOT form unless the EPA Regional Office has approved its use. Where you have obtained approval to use this form, indicate the waiver that you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date that approval was provided. See <https://www.epa.gov/npdes/contact-us-stormwater> for a list of EPA Regional Office contacts.

Section B. Permit Information

Enter the existing NPDESID (i.e., NOI tracking number) assigned to your permit authorization.

Indicate your reason for submitting this NOT by checking the appropriate box. Check only one box (see MSGP Part 1.4.2 for more information).

Section C. Facility Operator Information

Provide the legal name of the person, firm, public organization, or any other entity that operates the facility described in this NOT. An operator of a facility is the legal entity that controls the operation of the facility. Refer to Appendix A of the permit for the definition of "operator". Provide the operator's mailing address, phone number, and e-mail.

Section D. Facility Information

Enter the official or legal name and complete street address, including city, state, ZIP code, and county or similar government subdivision of the facility. If the facility lacks a street address, indicate the general location of the facility (e.g., Intersection of State Highways 61 and 34). Complete facility information must be provided for termination of permit coverage to be valid.

Section E. Certification Information

All NOTs must be signed as follows:

For a corporation: By a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means: (i) 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 (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this Part, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA). Include the name and title of the person signing the form and the date of signing.

Include the name, title, and e-mail address of the person signing the form and the date of signing. An unsigned or undated NOT form will not be considered valid termination of permit coverage.

Paperwork Reduction Act Notice

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2040-0300). Responses to this collection of information are mandatory (40 CFR 122.26). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information is estimated to be 0.5 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Instructions for Completing EPA Form 3510-7

**Notice of Termination for Stormwater Discharges
Associated with Industrial Activity Under the NPDES Multi-Sector General Permit**

This Form Replaces Form 3510-7 (06/15) Form OMB No. 2040-0300

Submitting Your Form

If you have been granted a waiver from your Regional Office to submit a paper NOT form, you must send your NOT by mail to one of the following addresses:

For Regular U.S. Mail Delivery:

Stormwater Notice Processing Center
Mail Code 4203M, ATTN: 2020 MSGP Reports
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460


For Overnight/Express Mail Delivery:

Stormwater Notice Processing Center
William Jefferson Clinton East Building - Room 7420
ATTN: 2020 MSGP Reports
U.S. EPA
1201 Constitution Avenue, NW Washington, DC 20004

Visit this website for instructions on how to submit electronically:
<https://www.epa.gov/npdes/stormwater-discharges-industrial-activities>

Appendix H - Notice of Termination (NOT) Form

Part 7.2 requires you to use the NPDES eReporting Tool, or “NeT”, to prepare and submit your No Exposure Certification (NEC) form. However, if you are given a waiver by the EPA Regional Office to use a paper NEC form, and you elect to use it, you must complete and submit the following form.

NPDES FORM 3510-7		UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 NOTICE OF TERMINATION (NOT) FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY UNDER THE NPDES MULTI-SECTOR GENERAL PERMIT	OMB No. 2040-0300 Exp. Date: 3/31/2024
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Submission of this Notice of Termination constitutes notice that the operator identified in Section C of this form is no longer authorized to discharge pursuant to the NPDES Multi-Sector General Permit (MSGP) from the facility identified in Section D of this form. All necessary information must be included on this form. Refer to the instructions at the end of this form.

1. Have you been granted a waiver from electronic reporting from the EPA Regional Office*? ☐ YES ☐ NO

If yes, check which waiver you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date of approval:

Waiver granted: ☐ The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.

☐ The owner/operator has issues regarding available computer access or computer capability

Name of EPA staff person that granted the waiver:

Date approval obtained: / /

*** Note: You are required to obtain approval from the applicable Regional Office prior to using this paper NOT form. If you have not obtained a waiver, you must file this form electronically using the NPDES eReporting Tool (Net) at <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities>**

1. NPDES ID:

2. Reason for Termination (check one only):

☐ A new owner or operator has taken over responsibility for the facility.

☐ You have ceased operations at the facility, there are not or no longer will be discharges of stormwater associated with industrial activity from the facility, and you have already implemented necessary sediment and erosion controls as required by Part 2.1.2.5.

☐ You are a Sector G, H, or J facility and you have met the applicable termination requirements.

☐ You obtained coverage under an individual or alternative general permit for all discharges required to be covered by an NPDES permit.

1. Operator Name:

2. Mailing Address:

Street:

City: State: ZIP Code: -

3. Phone: - - Ext.

4. E-mail:

1. Facility Name:

2. Facility Address:

Street:

City: State: ZIP Code: -

County or Similar Government Subdivision:

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.

[illegible][illegible]Date:

			/			/			
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Instructions for Completing EPA Form 3510-7

**Notice of Termination for Stormwater Discharges
Associated with Industrial Activity Under the NPDES Multi-Sector General Permit**

This Form Replaces Form 3510-7 (06/15) Form OMB No. 2040-0300

Who May File Notice of Termination (NOT) Form

Permittees currently covered by EPA's NPDES Stormwater Multi-Sector General Permit (MSGP or permit) must submit a Notice of Termination (NOT) within 30 days after one or more of the following conditions have been met:

- A new owner or operator has assumed responsibility for the facility;
- You have ceased operations at the facility and there are not or no longer will be discharges of stormwater associated with industrial activity from the facility and you have already implemented necessary sediment and erosion controls per Part 2.1.2.5;
- You are a Sector G, H, or J facility and you have met the applicable termination requirements; or
- You obtained coverage under an individual or alternative general permit for all discharges required to be covered by an NPDES permit.

See the MSGP Part 1.4.2 for more information.

Completing the Form

To complete this form, type or print, using uppercase letters, in the appropriate areas only. Please place each character between the marks. Abbreviate if necessary to stay within the number of characters allowed for each item. Use only one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. Please submit original document with signature in ink - do not send a photocopied signature.

Section A. Approval to Use Paper NOT Form

You must indicate whether you have been granted a waiver from electronic reporting from the EPA Regional Office. Note that you are not authorized to use this paper NOT form unless the EPA Regional Office has approved its use. Where you have obtained approval to use this form, indicate the waiver that you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date that approval was provided. See <https://www.epa.gov/npdes/contact-us-stormwater> for a list of EPA Regional Office contacts.

Section B. Permit Information

Enter the existing NPDESID (i.e., NOI tracking number) assigned to your permit authorization.

Indicate your reason for submitting this NOT by checking the appropriate box. Check only one box (see MSGP Part 1.4.2 for more information).

Section C. Facility Operator Information

Provide the legal name of the person, firm, public organization, or any other entity that operates the facility described in this NOT. An operator of a facility is the legal entity that controls the operation of the facility. Refer to Appendix A of the permit for the definition of "operator". Provide the operator's mailing address, phone number, and e-mail.

Section D. Facility Information

Enter the official or legal name and complete street address, including city, state, ZIP code, and county or similar government subdivision of the facility. If the facility lacks a street address, indicate the general location of the facility (e.g., Intersection of State Highways 61 and 34). Complete facility information must be provided for termination of permit coverage to be valid.

Section E. Certification Information

All NOTs must be signed as follows:

For a corporation: By a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means: (i) 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 (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this Part, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA). Include the name and title of the person signing the form and the date of signing.

Include the name, title, and e-mail address of the person signing the form and the date of signing. An unsigned or undated NOT form will not be considered valid termination of permit coverage.

Paperwork Reduction Act Notice

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2040-0300). Responses to this collection of information are mandatory (40 CFR 122.26). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information is estimated to be 0.5 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Instructions for Completing EPA Form 3510-7

**Notice of Termination for Stormwater Discharges
Associated with Industrial Activity Under the NPDES Multi-Sector General Permit**

This Form Replaces Form 3510-7 (06/15) Form OMB No. 2040-0300

Submitting Your Form

If you have been granted a waiver from your Regional Office to submit a paper NOT form, you must send your NOT by mail to one of the following addresses:

For Regular U.S. Mail Delivery:

Stormwater Notice Processing Center
Mail Code 4203M, ATTN: 2020 MSGP Reports
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

For Overnight/Express Mail Delivery:

Stormwater Notice Processing Center
William Jefferson Clinton East Building - Room 7420
ATTN: 2020 MSGP Reports
U.S. EPA
1201 Constitution Avenue, NW Washington, DC 20004

Visit this website for instructions on how to submit electronically:
<https://www.epa.gov/npdes/stormwater-discharges-industrial-activities>

Appendix I - Annual Report Form

Part 7.2 requires you to use the NPDES eReporting Tool, or “NeT”, to prepare and submit your Annual Report. However, if you are given a waiver by the EPA Regional Office to use a paper annual report form, and you elect to use it, you must complete and submit the following form.

NPDES FORM 6100-28		UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 ANNUAL REPORT FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY UNDER THE NPDES MULTI-SECTOR GENERAL PERMIT	OMB No. 2040-0300 Exp. Date: 3/31/2024
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A. Approval to Use Paper Annual Report Form

1. Have you been granted a waiver from electronic reporting from the EPA Regional Office*? ☐ YES ☐ NO

If yes, check which waiver you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date of approval:

Waiver granted: ☐ The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.

☐ The owner/operator has issues regarding available computer access or computer capability

Name of EPA staff person that granted the waiver:

Date approval obtained: / /

* Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper annual report form. If you have not obtained a waiver, you must file this form electronically using the NPDES eReporting Tool (NeT) at <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities>

B. Permit Information

1. NPDES ID:

C. Facility Information

1. Facility Name:

2. Facility Phone: - - Ext.

3. Facility Mailing Address:

Street:

City: State: ZIP Code: -

County or Similar Government Subdivision:

4. Point of Contact:

First Name, Middle Initial, Last Name

D. General Findings

1. Provide a summary of your past year's routine facility inspection documentation, including dates (see Part 3.1.6 of the permit). In addition, if you are an operator of an airport facility (Sector S) that is subject to the airport effluent limitations guidelines, and are complying with the MSGP Part 8.S.8.1 effluent limitation through the use of non-urea-containing deicers, provide a statement certifying that you do not use pavement deicers containing urea (e.g., "Urea was not used at [name of airport] for pavement deicing in the past year and will also not be used in 2021." (Note: Operators of airport facilities that are complying with Part 8.S.8.1 by meeting the numeric effluent limitation for ammonia do not need to include this statement.)

2. Provide a summary of your past year's quarterly visual assessment documentation, including dates (see Part 3.2.3 of the permit).

3. Provide a summary of your past year's corrective action and/or advanced implementation measures (AIM) documentation (See Part 5.1.3 of the permit). (Note: If corrective action is not yet completed at the time of submission of this annual report, you must describe the status of any outstanding corrective action(s).) Note that you must modify your SWPPP based on the corrective actions and deadlines required under Part 5. Also describe any incidents of noncompliance in the past year or currently ongoing, or if none, provide a statement that you are in compliance with the permit.

E. Certification Information

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.

First Name, Middle, Last Name

Title:

Signature: _____

Date: / /

E-mail:

Instructions for Completing EPA Form 6100-28

Annual Report for Stormwater Discharges
Associated with Industrial Activity Under the NPDES Multi-Sector General Permit

This Form Replaces Form 6100-28 (06/15) OMB No. 2040-0300

Who Must File an Annual Report

Operators must submit an Annual Report to EPA electronically, per Part 7.4, by January 30th for each year of permit coverage containing information generated from the past calendar year.

Completing the Form

To complete this form, type or print, using uppercase letters, in the appropriate areas only. Please place each character between the marks. Abbreviate if necessary to stay within the number of characters allowed for each item. Use only one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. Please submit original document with signature in ink - do not send a photocopied signature.

Section A. Approval to Use Paper Annual Report Form

You must indicate whether you have been granted a waiver from electronic reporting from the EPA Regional Office. Note that you are not authorized to use this paper form unless the EPA Regional Office has approved its use. Where you have obtained approval to use this form, indicate the waiver that you have been granted, the name of the EPA staff person who granted the waiver, and the date that approval was provided. See <https://www.epa.gov/npdes/contact-us-stormwater> for a list of EPA Regional Office contacts.

Section B. Permit Information

Provide the NPDES ID (i.e., NOI tracking number) assigned to your facility.

Section C. Facility Information

Enter the official or legal name, phone number, and complete street address, including city, state, ZIP code, and county or similar government subdivision, for the facility that is covered by the NPDES ID identified in Section B. If the facility lacks a street address, indicate the general location of the facility (e.g., Intersection of State Highways 61 and 34). Also provide a point of contact name for the facility.

Section D. General Findings

To complete this section you must provide the following information in your annual report:

1. A summary of your past year's routine facility inspection documentation, including inspection dates, required by Part 3.1.6 of the permit.
2. A summary of your past year's quarterly visual assessment documentation, including visual assessment dates, required by Part 3.2.3 of the permit.
3. Information copied or summarized from the corrective action and/or advanced implementation measures (AIM) documentation required per Part 5.1.3 (if applicable). If corrective action and/or advanced implementation measures are not yet completed at the time of submission of this Annual Report, you must describe the status of any outstanding corrective action(s)/advanced implementation measures. You must also describe any incidents of noncompliance in the past year or currently ongoing, or if none, provide a statement that you are in compliance with the permit.

Section E. Certification Information

The Annual Report must be signed by a person described below, or by a duly authorized representative of that person.

For a corporation: By a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means:

(i) 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 (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this Part, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA). Include the name and title of the person signing the form and the date of signing.

A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above;
2. The authorization specifies 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 thus be either a named individual or any individual occupying a named position.) and
3. The written authorization is submitted to the Director.

An unsigned or undated Annual Report form will be considered incomplete.

Paperwork Reduction Act Notice

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2040-0300). Responses to this collection of information are mandatory (40 CFR 122.26). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information is estimated to be 1 hour per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Instructions for Completing EPA Form 6100-28
Annual Report for Stormwater Discharges
Associated with Industrial Activity Under the NPDES Multi-Sector General Permit

This Form Replaces Form 6100-28 (06/15) OMB No. 2040-0300

Submitting Your Form

If you have been granted a waiver from your Regional Office to submit a paper Annual Report form, you must send your Annual Report form by mail to one of the following addresses:

For Regular U.S. Mail Delivery:

Stormwater Notice Processing Center
Mail Code 4203M, ATTN: 2020 MSGP Reports
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

For Overnight/Express Mail Delivery:

Stormwater Notice Processing Center
William Jefferson Clinton East Building - Room 7420
ATTN: 2020 MSGP Reports
U.S. EPA
1201 Constitution Avenue, NW
Washington, DC 20004

Visit this website for instructions on how to submit electronically:
<https://www.epa.gov/npdes/stormwater-discharges-industrial-activities>

Appendix J - Calculating Hardness in Freshwater Receiving Waters for Hardness Dependent Metals

Overview

For any sectors required to conduct benchmark samples for a hardness-dependent metal, EPA includes 'hardness ranges' from which benchmark values are determined. To determine which hardness range to use, you must collect data on the hardness of your receiving water(s). Once the site-specific hardness data have been collected, the corresponding benchmark value for each metal is determined by comparing where the hardness data fall within hardness ranges, as shown in Table 1. You only need to determine hardness for your discharges into freshwater as the benchmark values for metals do not vary for discharges to saline waters.

Table 1. Hardness Ranges to Be Used to Determine Benchmark Values for Cadmium, Lead, Nickel, Silver, and Zinc.

All Units (mg/L)	Benchmark Values (µg/L, total)				
	Cadmium	Lead	Nickel	Silver	Zinc
0-24.99	0.49	14	145	0.37	37
25-49.99	0.73	24	203	0.80	52
50-74.99	1.2	45	314	1.9	80
75-99.99	1.7	69	418	3.3	107
100-124.99	2.1	95	518	5.0	132
125-149.99	2.6	123	614	7.1	157
150-174.99	3.1	152	707	9.4	181
175-199.99	3.5	182	798	12	204
200-224.99	4.0	213	888	15	227
225-249.99	4.4	246	975	18	249
250+	4.7	262	1019	20	260

How to Determine Hardness for Hardness-Dependent Parameters in Freshwater.

You 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, you are responsible for documenting the procedures used for determining hardness values. The hardness value is required to be submitted to EPA with your Notice of Intent (NOI) so that your electronic Discharge Monitoring Report (DMR) which you will submit through Net-DMR will include the appropriate limits. You must retain all report and monitoring data in accordance with Part 7.8 of the permit. The three method options for determining hardness are detailed in the following sections.

i. Permittee Samples for Receiving Stream Hardness

This method involves collecting samples in the receiving water and submitting these to a laboratory for analysis. If you elect to sample your receiving water(s) and submit samples for analysis, hardness must be determined from the closest intermittent or perennial stream downstream of your 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 stormwater 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).

ii. Group Monitoring for Receiving Stream Hardness

You 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.

iii. Collection of Third-Party Hardness Data

You 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, short for STORage and RETrieval, 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, then individual results for calcium (Ca) and magnesium (Mg) may be used to calculate hardness using the following equation:

$$\text{mg/L CaCO}_3 = 2.497 (\text{Ca mg/L}) + 4.118 (\text{Mg mg/L})$$

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.

Appendix K - No Exposure Certification (NEC) Form

Part 7.2 requires you to use the NPDES eReporting Tool, or "NeT", to prepare and submit your No Exposure Certification (NEC) form. However, if you are given a waiver by the EPA Regional Office to use a paper NEC form, and you elect to use it, you must complete and submit the following form.

NPDES FORM 3510-11		UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 NO EXPOSURE CERTIFICATION (NEC) FOR EXCLUSION FROM EPA'S MULTI-SECTOR GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY (MSGP)	OMB No. 2040-0300 Exp. Date: 3/31/2024
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Submission of this No Exposure Certification (NEC) constitutes notice that the operator identified in Section C does not require permit authorization under EPA's Stormwater Multi Sector General Permit for its stormwater discharges associated with industrial activity from the facility identified in Section D of this form due to the existence of a condition of no exposure.

A condition of no exposure exists at an industrial facility when all industrial materials and activities are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. Material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product or waste product. A storm resistant shelter is not required for the following industrial materials and activities:

- drums, barrels, tanks, and similar containers that are tightly sealed, provided those containers are not deteriorated and do not leak. "Sealed" means banded or otherwise secured and without operational taps or valves;
- adequately maintained vehicles used in material handling; and
- final products, other than products that would be mobilized in stormwater discharges (e.g., rock salt).

A NEC must be provided for each facility qualifying for the no exposure exclusion. In addition, the exclusion from NPDES permitting is available on a facility-wide basis only, not for individual outfalls. If any industrial activities or materials are or will be exposed to precipitation, the facility is not eligible for the no exposure exclusion.

By signing and submitting this NEC form, the operator in Section C is certifying that a condition of no exposure exists at its facility or site, and is obligated to comply with the terms and conditions of 40 CFR 122.26(g).

A. Approval to Use Paper NEC Form

1. Have you been granted a waiver from electronic reporting from the EPA Regional Office*? ☐ YES ☐ NO

If yes, check which waiver you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date of approval:

Waiver granted: ☐ The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.

☐ The owner/operator has issues regarding available computer access or computer capability

Name of EPA staff person that granted the waiver:

Date approval obtained: / /

* Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper NEC form. If you have not obtained a waiver, you must file this form electronically using the NPDES eReporting Tool (NeT) at <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities>

B. Reason for Submission

Select the purpose for filling out this form (check only 1).

☐ **To obtain a new NEC.** Fill in Sections C, D, E and F.

☐ **To discontinue an existing NEC.** Select this option if you would like to discontinue an existing NEC because your facility is no longer subject to regulation under 40 CFR 122.26 (e.g., the facility has ceased the industrial activity that necessitated the NEC)*. Provide the following information and fill out Section G.

Provide the existing NPDES ID for the NEC that you would like to discontinue:

1. Are you a new discharger or a new source as defined in Appendix A? ☐ YES ☐ NO (If yes, skip to Part C of this form).

* Note that if your facility no longer qualifies for the NEC because permit coverage is required for exposed industrial materials or activities, you should not check this box, and must instead file for coverage under the Multi-Sector General Permit (MSGP) or an individual permit. Your NEC will be automatically discontinued after you obtain coverage under the MSGP or an individual permit.

C. Facility Operator Information

1. Operator Name:

2. Mailing Address:

Street:

City: State: ZIP Code: -

3. Phone: - - Ext.

4. E-mail:

5. Operator Point of Contact Information:

First Name, Middle Initial, Last Name Title: **D. Facility Information**1. Facility Name:

2. Facility Address:

Street/Location: City: State: ZIP Code: - County or Similar Government Subdivision:

3. Latitude/Longitude for the facility:

Latitude: ° N (decimal degrees) Longitude: ° W (decimal degrees)Latitude/Longitude Data Source: ☐ Maps ☐ GPS ☐ Other If you used a USGS topographic map, what was the scale? Horizontal Reference Datum: ☐ NAD 27 ☐ NAD 83 ☐ WGS 844. Is your facility located on Indian Country lands? ☐ YES ☐ NOIf yes, provide the name of the Indian tribe associated with the area of Indian country (including name of Indian reservation, if applicable): 5. Are you a "federal operator" as defined in Appendix A? ☐ YES ☐ NO

6. What is the ownership type of the facility? ☐ Federal Facility (U.S. Government) ☐ Privately Owned Facility ☐ Municipality ☐ County Government

☐ Corporation ☐ State Government ☐ Tribal Government ☐ School District

☐ District ☐ Mixed Ownership (e.g., Public/Private) ☐ Municipal or Water District

7. Have stormwater discharges from your facility been covered previously under an NPDES permit? ☐ YES ☐ NOIf yes, provide the NPDES ID if you had coverage under EPA's MSGP or the NPDES permit number if you had coverage under an EPA individual permit: 8. Has your facility previously been covered by a noexposure exclusion? ☐ YES ☐ NOIf yes, provide the NPDES ID for your previous no exposure exclusion:

9. Identify the 4-digit Standard Industrial Classification (SIC) code or 2-letter Activity Code that best represents the products produced or services rendered for which your facility is primarily engaged, as defined in the MSGP, and the applicable sector and subsector of your primary industrial activity (See Appendix D):

☐ Primary SIC Code OR ☐ Primary Activity Code
10. Total size of site associated with industrial activity: (to the nearest quarter acre)11. Have you paved or roofed over a formerly exposed, pervious area in order to qualify for the no exposure exclusion? ☐ YES ☐ NO

If yes, please indicate approximately how much area was paved or roofed over. Completing this question does not disqualify you for the no exposure exclusion. However, your permitting authority may use this information in considering whether stormwater discharges from your site are likely to have an adverse impact on water quality, in which case you could be required to obtain permit coverage.

☐ Less than one (1) acre ☐ One (1) to five (5) acres ☐ More than five (5) acres

E. Exposure Checklist

Are any of the following materials or activities exposed to precipitation, now or in the foreseeable future?

(Please check either "Yes" or "No" in the appropriate box.) If you answer "Yes" to any of these questions, you are not eligible for the no exposure exclusion.

	Yes	No
Using, storing or cleaning industrial machinery or equipment, and areas where residuals from using, storing or cleaning industrial machinery or equipment remain and are exposed to stormwater	<input type="checkbox"/>	<input type="checkbox"/>
Materials or residuals on the ground or in stormwater inlets from spills/leaks	<input type="checkbox"/>	<input type="checkbox"/>
Materials or products from past industrial activity	<input type="checkbox"/>	<input type="checkbox"/>
Material handling equipment (except adequately maintained vehicles)	<input type="checkbox"/>	<input type="checkbox"/>
Materials or products during loading/unloading or transporting activities	<input type="checkbox"/>	<input type="checkbox"/>
Materials or products stored outdoors (except final products intended for outside use [e.g., new cars] where exposure to stormwater does not result in the discharge of pollutants)	<input type="checkbox"/>	<input type="checkbox"/>
Materials contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers	<input type="checkbox"/>	<input type="checkbox"/>
Materials or products handled/stored on roads or railways owned or maintained by the discharger	<input type="checkbox"/>	<input type="checkbox"/>
Waste material (except waste in covered, non-leaking containers [e.g., dumpsters])	<input type="checkbox"/>	<input type="checkbox"/>
Application or disposal of process wastewater (unless otherwise permitted)	<input type="checkbox"/>	<input type="checkbox"/>
Particulate matter or visible deposits of residuals from roof stacks and/or vents not otherwise regulated (i.e., under an air quality control permit) and evident in the stormwater outflow	<input type="checkbox"/>	<input type="checkbox"/>

F. Certification Information

I certify under penalty of law that I have read and understand the eligibility requirements for claiming a condition of "no exposure" and obtaining an exclusion from NPDES stormwater permitting.

I certify under penalty of law that there are no discharges of stormwater contaminated by exposure to industrial activities or materials from the industrial facility or site identified in this document (except as allowed under 40 CFR 122.26(g)(2)).

I understand that I am obligated to submit a NEC form once every five years to the NPDES permitting authority and, if requested, to the operator of the local municipal separate storm sewer system (MS4) into which the facility discharges (where applicable). I understand that I must allow the NPDES permitting authority, or MS4 operator where the discharge is into the local MS4, to perform inspections to confirm the condition of no exposure and to make such inspection reports publicly available upon request. I understand that I must obtain coverage under an NPDES permit prior to any point source discharge of stormwater from the facility.

Additionally, 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.

First Name, Middle, Last Name:

Title:

Signature: _____ Date: / /

E-mail:

G. Discontinuation of NEC Information

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.

First Name, Middle, Last Name

Title:

Signature: _____ Date: / /

E-mail:

Instructions for Completing EPA Form 3510-11

**No Exposure Certification (NEC) for Exclusion from Stormwater Discharges
Associated with Industrial Activity Under the NPDES Multi-Sector General Permit**

This Form Replaces Form 3510-11 (06/15) OMB No. 2040-0300

Who May File a No Exposure Certification (NEC) Form

Federal law at 40 CFR Part 122.26 prohibits point source discharges of stormwater associated with industrial activity to waters of the U.S. without a National Pollutant Discharge Elimination System (NPDES) permit. However, NPDES permit coverage is not required for discharges of stormwater associated with industrial activities identified at 40 CFR 122.26(b)(14)(i)-(ix) and (xi) if the discharger can certify that a condition of "no exposure" exists at the industrial facility or site.

Stormwater discharges from construction activities identified in 40 CFR 122.26(b)(14)(x) and (b)(15) are not eligible for the no exposure exclusion.

Obtaining and Maintaining the No Exposure Exclusion

This form is used to certify that a condition of no exposure exists at the industrial facility or site described herein. This certification is only applicable in jurisdictions where EPA is the NPDES permitting authority and must be re-submitted at least once every five years.

The industrial facility operator must maintain a condition of no exposure at its facility or site in order for the no exposure exclusion to remain applicable. If conditions change resulting in the exposure of materials and activities to stormwater, the facility operator must obtain coverage under an NPDES stormwater permit immediately.

Completing the Form

You must type or print, using uppercase letters, in appropriate areas only. Enter only one character per space (i.e., between the marks). Abbreviate if necessary to stay within the number of characters allowed for each item. Use one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. Please submit original document with signature in ink - do not send a photocopied signature. One form must be completed for each facility or site for which you are seeking to certify a condition of no exposure. **Please make sure you have addressed all applicable questions and have made a photocopy for your records before sending the completed form to the above address.**

Section A. Approval to Use Paper NEC Form

You must indicate whether you have been granted a waiver from electronic reporting from the EPA Regional Office. Note that you are not authorized to use this paper NEC form unless the EPA Regional Office has approved its use. Where you have obtained approval to use this form, indicate the waiver that you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date that approval was provided. See <https://www.epa.gov/npdes/contact-us-stormwater> for a list of EPA Regional Office contacts.

Section B. Reason for Submission

You must check your reason for submitting this form. You may submit this form for obtaining a new NEC, for renewing a previous NEC, or for discontinuing an existing NEC (for facilities that no longer need the exclusion from permit coverage for industrial stormwater discharges).

Section C. Facility Operator Information

Provide the legal name of the person, firm, public organization, or any other entity that operates the facility described in this certification form. An operator of a facility is the legal entity that controls the operation of the facility. Refer to Appendix A of the

MSGP for the definition of "operator". Provide the operator's mailing address, phone number, and e-mail. Correspondence for the NEC will be sent to this address. Also provide the name and title for the operator point of contact (note that the point of contact name may be the same as the operator name).

Section D. Facility Information

Enter the official or legal name and complete street address, including city, state, ZIP code, and county or similar government subdivision of the facility. If the facility lacks a street address, indicate the general location of the facility (e.g., Intersection of State Highways 61 and 34). Complete facility information must be provided for permit coverage to be granted.

Provide the latitude and longitude of your facility in decimal degrees format. The latitude and longitude of your facility can be determined in several different ways, including through the use of global positioning system (GPS) receivers and U.S. Geological Survey (USGS) topographic or quadrangle maps. Refer to <http://transition.fcc.gov/mb/audio/bickel/DDDMSS-decimal.html/> for assistance in providing the proper latitude/longitude format. For consistency, EPA requests that measurements be taken from the approximate center of the facility. Specify which method you used to determine latitude and longitude. If a USGS topographic map is used, specify the scale of the map used. Enter the horizontal reference datum for your latitude and longitude. The horizontal reference datum used on USGS topographic maps is shown on the bottom left corner of USGS topographic maps; it is also available for GPS receivers.

Indicate whether the facility is on Indian country lands, and if so, provide the name of the Indian tribe associated with the area of Indian country (including name of Indian reservation, if applicable).

Indicate whether you are a "federal operator" as defined in Appendix A of the MSGP. Also check the facility's ownership type.

Indicate whether the facility was previously covered under an NPDES stormwater permit. If so, include the NPDES ID (i.e., NOI tracking number).

List the four-digit Standard Industrial Classification (SIC) code or two character activity code that best describes the primary industrial activities performed by your facility.

Enter the total size of the site associated with industrial activity in acres.

Check "Yes" or "No" as appropriate to indicate whether you have paved or roofed over a formerly exposed, pervious area (i.e., lawn, meadow, dirt or gravel road/parking lot) in order to qualify for no exposure. If yes, also indicate approximately how much area was paved or roofed over and is now impervious area.

Instructions for Completing EPA Form 3510-11

**No Exposure Certification (NEC) for Exclusion from Stormwater Discharges
Associated with Industrial Activity Under the NPDES Multi-Sector General Permit**

This Form Replaces Form 3510-11 (06/15) Form OMB No. 2040-0300

Section E. Exposure Checklist

Check "Yes" or "No" as appropriate to describe the exposure condition at your facility. If you answer "Yes" to **ANY** of the questions in this section, a potential for exposure exists at your site and you cannot certify to a condition of no exposure. You must obtain (or already have) coverage under an NPDES stormwater permit. After obtaining permit coverage, you can institute modifications to eliminate the potential for a discharge of stormwater exposed to industrial activity, and then certify to a condition of no exposure.

Section F and G. Certification and Discontinuation of NEC Information

The NEC form must be signed as follows:

For a corporation: By a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means:

(i) 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 (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this Part, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA). Include the name and title of the person signing the form and the date of signing.

Include the name, title, and e-mail address of the person signing the form and the date of signing.

An unsigned or undated NEC form will not be considered valid.

Paperwork Reduction Act Notice

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2040-0300). Responses to this collection of information are mandatory (40 CFR 122.26). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information is estimated to be 45 minutes per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the

Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Submitting Your Form

If you have been granted a waiver from your Regional Office to submit a paper NEC form, you must send your NEC form by mail to one of the following addresses:

For Regular U.S. Mail Delivery:

Stormwater Notice Processing Center
Mail Code 4203M, ATTN: MSGP No Exposure
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

For Overnight/Express Mail Delivery:

Stormwater Notice Processing Center
William Jefferson Clinton East Building - Room 7420
ATTN: MSGP No Exposure
U.S. EPA
1201 Constitution Avenue, NW
Washington, DC 20004

Visit this website for instructions on how to submit electronically:
<https://www.epa.gov/npdes/stormwater-discharges-industrial-activities>

Appendix L - List of Tier 3, Tier 2, and Tier 2.5 Waters

EPA's MSGP has special requirements for discharges to waters designated by a state or tribe as Tier 2/2.5 or Tier 3 for antidegradation purposes under 40 CFR 131.12(a). See Parts 1.1.6.2 and 1.1.7.

The list below is provided as a resource for operators who must determine whether they discharge to a Tier 2/2.5 or Tier 3 water. Only Tier 2/2.5 or Tier 3 waters specifically identified by a water quality standard authority (e.g., a state, territory, or tribe) are identified in the table below. Many authorities evaluate the existing and protected quality of the receiving water on a pollutant-by-pollutant basis and determine whether water quality is better than the applicable criteria that would be affected by a new discharger or a new source or an increase in an existing discharge of the pollutant. In instances where water quality is better, the authority may choose to allow lower water quality, where lower water quality is determined to be necessary to support important social and economic development. Permittees are not required to identify those waters which are evaluated on an individual basis.

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority	
MAR050000	Commonwealth of Massachusetts, except Indian Country lands	
	Tier 2, Tier 2.5, and 3 waters are identified and listed in the Massachusetts Water Quality Standards 314 CMR 4.00. Surface water qualifiers that correspond with Tier classifications are defined at 314 CMR 4.06(1)(d) and listed in tables and figures at the end of 314 CMR 4.06. See MassDEP's web page at: https://www.mass.gov/doc/314-cmr-400-surface-water-quality-standards/download .	
	Tier 2	Listed as "High Quality Waters", and all wetlands that are not designated as an Outstanding Resource Water
	Tier 2.5	Listed as "Outstanding Resource Water", "Public Water Supply", "Tributary to Public Water Supply", all wetlands bordering Outstanding Resource Waters, and vernal pools
	Tier 3	Defined as "Special Resource Water". Note: No waters have been defined as a Special Resource Water as of the issuance of this permit.

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority	
NHR050000	State of New Hampshire	
	Tier 2	<p>All waters are Tier 2 except where listed as impaired for the most current approved assessment cycle. GIS maps are available in cycle specific Surface Water Quality Viewer at: https://nhdes.maps.arcgis.com/apps/webappviewer/index.html?id=aa5a11f8b8c341058fc031701a2fb3c9 and, using the NHDES Assessment Unit ID assigned to the waterbody, referencing the appropriate Watershed Report Card (based on the 305(b)/303(d) Assessment). Waterbodies included in Categories "4A-*" or "5-*" are impaired and therefore not designated as Tier 2 waters.</p> <p>The assessment status of waterbodies is also included in the biennial 303(d) Lists available in spreadsheet and PDF format at: https://www.des.nh.gov/resource-center/publications?keys=303%28d%29+List&purpose=&subcategory=Watershed+Management. As of Effective Date of this Permit, the following assessment cycles are approved for the waterbodies indicated (however, operators must check for any more recently approved cycles at the time of filing an NOI; i.e., the 2020 303(d) List will apply to all waterbodies once approved):</p> <p>For discharges into the following waters, reference the 2012 305(b)/303(d) List:</p> <p>Little Bay, Bellamy River, Upper Piscataqua River, Portsmouth Harbor, Little Harbor/Back Channel and Great Bay assessment zones; and the Upper Portsmouth Harbor, Great Bay Prohib SZ2, and Great Bay-Cond Appr assessment units.</p> <p>For discharges into all other waters, reference the 2018 303(d) List available at: https://www.des.nh.gov/resource-center/publications?keys=2018+status&purpose=&subcategory=Watershed+Management</p> <p>Waterbodies not identified on the list or map are Tier 2.</p> <p>There is no list of Tier 2 or 2.5 waters in New Hampshire. New dischargers and new sources should contact David J. Gray (EPA Region 1's MSGP coordinator at gray.davidj@epa.gov).</p>
	Tier 2.5	<p>There is no list of Tier 2 or 2.5 waters in New Hampshire. New dischargers and new sources should contact David J. Gray (EPA Region 1's MSGP coordinator at gray.davidj@epa.gov).</p>

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority	
	Tier 3	<p>Listed as an Outstanding Resource Water (ORW). Env-Ws 1708.04(a) describes that surface waters of national forests and surface waters designated as "natural" under RSA 483:7-a, shall be considered outstanding resource waters (ORW). A list of ORWs/Tier 3 waters is available at: https://www.des.nh.gov/resource-center/publications?keys=cgp&purpose=&subcategory=Watershed+Management. If so indicated on this list, review the NHDES OneStop Data Mapper at: https://www4.des.state.nh.us/onestopdatamapper/onestopmapper.aspx.</p> <p>Waterbodies not identified on the list or map are not ORWs.</p> <p>Env-Wq 1708.04(a) Surface waters of national forests and surface waters designated as "natural" under RSA 483:7-a, shall be considered outstanding resource waters (ORW). The New Hampshire waters listed as ORW can be found along with a list of impaired waters at https://www.des.nh.gov/organization/divisions/water/stormwater/documents/impaired-tmdl-orw-listcgp-msgp.xlsx. New dischargers and new sources should contact David J. Gray (EPA Region 1's MSGP coordinator at gray.davidj@epa.gov).</p>
PRR050000	Commonwealth of Puerto Rico	
	Tier 3	<p>Tier III waters are those which are classified as either Class SA or Class SE. Class SA waters are defined as "Coastal waters and estuarine waters of high quality and/or exceptional ecological or recreational value whose existing characteristics shall not be altered, except by natural causes, in order to preserve the existing natural phenomena." Class SA waters include bioluminescent lagoons and bays such as La Parguera and Monsio José on the Southern Coast, Bahía de Mosquito in Vieques, and any other coastal or estuarine waters of exceptional quality of high ecological value or recreational which may be designated by Puerto Rico, through Resolution, as requiring this classification for protection of the waters. Class SE waters are defined as "Surface waters and wetlands of exceptional ecological value, whose existing characteristics should not be altered in order to preserve the existing natural phenomena." Class SE waters include Laguna Tortuguero, Laguna Cartagena and any other surface water bodies of exceptional ecological value as may be designated by Puerto Rico through Resolution.</p>
DCR050000	District of Columbia	
	Tier 2/2.5	<p>Rule 1102.4 SPECIAL WATERS OF THE DISTRICT OF COLUMBIA (SWDC): Any segment or segments of the surface waters of the District that are of water quality better than needed for the current use or have scenic or aesthetic importance shall be designated as Special Waters of the District of Columbia (SWDC). Rock Creek and its tributaries and Battery Kemble Creek and its tributaries are considered Special Waters of the District of Columbia (SWDC) under its antidegradation program.</p>
MNR050001	Fond du Lac Band of MN Chippewa	
	Tier 3	<p>Six lakes are presently identified as Tier 3: (1) Dead Fish, (2) Jaskari, (3) Miller (Mud), (4) Perch, (5) Rice Portage, (6) Wild Rice.</p>

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority	
	Grand Portage Band of MN Chippewa	
	Tier 2/2.5	All waters, not already classified as Tier 3, are high quality Tier 2 waters. (see Grand Portage Reservation Water Quality Standards, Section VI & VII, Pages 14-16).
	Tier 3	"The portion of Lake Superior north of latitude 47 degrees, 57 minutes, 13 seconds, east of Hat Point, south of the Minnesota-Ontario boundary, and west of the Minnesota-Michigan boundary." (see Section VII, Page 16).
WIR050001	Lac du Flambeau Band of the Lake Superior Chippewa	
	Tier 2	All named waters, including wetlands, not specified under an antidegradation classification.
	Tier 2.5	Bills Lake, Birch Lake, Bobidosh Lake, Bog Lake (SE SE Sec. 31, T40NR6E), Bolton Lake, Broken Bow Lake, Chewalah Lake, Clear Lake (Sec. 2, T39NR4E), Corn Great, Great, Corn Lake, Little "Least/Lesser", Crawling Stone Lake, Big, Crawling Stone Lake, Little, Crescent Lake, Crooked Lake, Big, David Lake, Ellerson Lake, Middle, Ellerson Lake, West, Elsie Lake "Boundary Lake", Fat Lake, Fence Lake, Gresham
		Creek, Green Lake (NW NW Sec. 19, T41R6E), Grey Lake, Gunlock Lake, Haskell Lake, Headflyer Lake (Sec. 19, T41NR5E), Highway Lake (NW NW Sec. 19, T41NR5E), Horsehead Lake (SE SW Sec. 9, T40NR5E), Hutton's Creek, Ike Walton Lake, Lily Lake (SE SW Sec. 35, T40NR5E), Little Ten Lake, Lodge Lake "L. Rice" (NW NW Sec. 8, T41NR6E), Lucy Lake, Mindys Lake (Sec. 8, T40NR5E), Minette Lake, Mitten Lake, Monk's Lake (Sec. 13, T40NR5E), Moving Cloud Lake, Mud Creek, Muskesin Lake, Patterson Lake, Placid Twin Lake (North), Placid Twin Lake (South), Plummer Lake, Poupart Lake, Prairie Lake (NE SW Sec. 13, T40NR4E), Raven Lake, Ross Allen Lake, Sand Lake, Little, Scott Lake (Sec. 22, T40N, R4E), Shishebogama Lake, Signal Lake, Snort Lake (Sec. 5, T41N, R6E), Spring Lake "Jerms", Squirrel Lake, Statenaker Lake "Hollow", Stearns Lake "Hourglass", Sugarbush "Hidden Lake" (NW NW Sec. 17, T41NR5E), Sugarbush Creek, Sugarbush Lake, Little, Sugarbush Lake, Lower, Sugarbush Lake, Middle, Sugarbush Lake, Upper, Sunfish Lake, Tippecanoe Lake, Tomahawk River, To-To Tom Lake, Toulish Lake, Trout River, Warrior Lake, White Sand Lake, Whitefish Lake "Cattail Lake" (Sec. 34, T40N5R), Wishow Lake, Wyandock Lake
	Tier 3	Bear River (1st bridge to Reservation boundary), Big Springs (Sec. 25, T40NR4E), Black Lake, Cranberry Lake, Doud Lake, Eagle Lake, Gene Lake, Johnson Springs, Little Trout Lake, Lost Lake (Sect. 1, T41NR4E), Mishonagon Creek, Munnomin (Jesse, Duck) Lake, Negani (Hegani) Lake, Reservation Line Lake, Spring Creek, Tank Lake, Thomas Lake, Wild Rice Lake, Zee Lake
	Mole Lake Band of the Lake Superior Tribe of the Chippewa Indians, Sokaogon Chippewa Community	
	Tier 2.9	One Tribal Water, Wetland 22, is classified as Exceptional High Quality Water (EHQW). It is a high-quality water body of significant cultural, religious, social, ecological and recreational attributes.
	Tier 3	All waters in the Sokaogon Chippewa Community (WI) as classified as Tier 3, with one exception (Wetland 22).

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority	
COR0500I	State of Colorado	
	Ute Mountain Ute Tribe	
	Tier 3	<p>(2010 Proposed) Designations:</p> <p>(1) Ute Spring and unnamed creek from Ute Spring downstream within Section 12, TWP35N R18W (Colorado).</p> <p>(2) Allen Canyon Creek, Sections 17, 20, 29, 30, 31, TWP 35S, R21E (Utah)</p> <p>(3) "Lopez" Spring and unnamed creek tributary to and downstream from the spring, within Section 35, TWP 34N, R18W</p>
NMR050000	State of New Mexico	
	Tier 3	<p>(1) Rio Santa Barbara, including the west, middle and east forks from their headwaters downstream to the boundary of the Pecos Wilderness; and</p> <p>(2) the waters within the United States forest service Valle Vidal special management unit including:</p> <p>(a) Rio Costilla, including Comanche, La Cueva, Fernandez, Chuckwagon, Little Costilla, Holman, Gold, Grassy, LaBelle and Vidal creeks, from their headwaters downstream to the boundary of the United States forest service Valle Vidal special management unit;</p> <p>(b) Middle Ponil creek, including the waters of Greenwood Canyon, from their headwaters downstream to the boundary of the Elliott S. Barker wildlife management area;</p> <p>(c) Shuree lakes;</p> <p>(d) North Ponil creek, including McCrystal and Seally Canyon creeks, from their headwaters downstream to the boundary of the United States forest service Valle Vidal special management unit; and</p> <p>(e) Leandro creek from its headwaters downstream to the boundary of the United States forest service Valle Vidal special management unit.</p> <p>(3) the named perennial surface waters of the state, identified in Subparagraph (a) below, located within United States department of agriculture forest service wilderness. Wilderness are those lands designated by the United States congress as wilderness pursuant to the Wilderness Act. Wilderness areas included in this designation are the Aldo Leopold wilderness, Apache Kid wilderness, Blue Range wilderness, Chama River Canyon wilderness, Cruces Basin wilderness, Dome wilderness, Gila wilderness, Latir Peak wilderness, Pecos wilderness, San Pedro Parks wilderness, Wheeler Peak wilderness, and White Mountain wilderness.</p> <p>(a) The following waters are designated in the Rio Grande basin:</p> <p>(i) in the Aldo Leopold wilderness: Byers Run, Circle Seven creek, Flower canyon, Holden Prong, Indian canyon, Las Animas creek, Mud Spring canyon, North Fork Palomas creek, North Seco creek, Pretty canyon, Sids Prong, South Animas canyon, Victorio Park canyon, Water canyon;</p> <p>(ii) in the Apache Kid wilderness Indian creek and Smith canyon;</p> <p>(iii) in the Chama River Canyon wilderness: Chavez canyon, Ojitos canyon, Rio Chama;</p> <p>(iv) in the Cruces Basin wilderness: Beaver creek, Cruces creek, Diablo creek, Escondido creek, Lobo creek, Osha creek;</p> <p>(v) in the Dome wilderness: Capulin creek, Medio creek, Sanchez canyon/creek;</p> <p>(vi) in the Latir Peak wilderness: Bull creek, Bull Creek lake, Heart lake,</p>

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority
	<p>Lagunitas Fork, Lake Fork creek, Rito del Medio, Rito Primero, West Latir creek;</p> <p>(vii) in the Pecos wilderness: Agua Sarca, Hidden lake, Horseshoe lake (Alamitos), Jose Vigil lake, Nambe lake, Nat lake IV, No Fish lake, North Fork Rio Quemado, Rinconada, Rio Capulin, Rio de las Trampas (Trampas creek), Rio de Truchas, Rio Frijoles, Rio Medio, Rio Molino, Rio Nambe, Rio San Leonardo, Rito con Agua, Rito Gallina, Rito Jaroso, Rito Quemado, San Leonardo lake, Santa Fe lake, Santa Fe river, Serpent lake, South Fork Rio Quemado, Trampas lake (East), Trampas lake (West);</p> <p>iii) in the San Pedro Parks wilderness: Agua Sarca, Cañon Madera, Cave creek, Cecilia Canyon creek, Clear creek (North SPP), Clear creek (South SPP), Corralitos creek, Dove creek, Jose Miguel creek, La Jara creek, Oso creek, Rio Capulin, Rio de las Vacas, Rio Gallina, Rio Puerco de Chama, Rito Anastacio East, Rito Anastacio West, Rito de las Palomas, Rito de las Perchas, Rito de los Pinos, Rito de los Utes, Rito Leche, Rito Redondo, Rito Resumidero, San Gregorio lake;</p> <p>(ix) in the Wheeler Peak wilderness: Black Copper canyon, East Fork Red river, Elk lake, Horseshoe lake, Lost lake, Sawmill creek, South Fork lake, South Fork Rio Hondo, Williams lake.</p> <p>(b) The following waters are designated in the Pecos River basin:</p> <p>(i) in the Pecos wilderness: Albright creek, Bear creek, Beatty creek, Beaver creek, Carpenter creek, Cascade canyon, Cave creek, El Porvenir creek, Hollinger creek, Holy Ghost creek, Horsethief creek, Jack's creek, Jarosa canyon/creek, Johnson lake, Lake Katherine, Lost Bear lake, Noisy brook, Panchuela creek, Pecos Baldy lake, Pecos river, Rio Mora, Rio Valdez, Rito Azul, Rito de los Chimayosos, Rito de los Esteros, Rito del Oso, Rito del Padre, Rito las Trampas, Rito Maestas, Rito Oscuro, Rito Perro, Rito Sebadillosos, South Fork Bear creek, South Fork Rito Azul, Spirit lake, Stewart lake, Truchas lake (North), Truchas lake (South), Winsor creek;</p> <p>(ii) in the White Mountain wilderness: Argentina creek, Aspen creek, Bonito creek, Little Bonito creek, Mills canyon/creek, Rodamaker creek, South Fork Rio Bonito, Turkey canyon/creek.</p> <p>(c) The following waters are designated in the Gila River basin:</p> <p>(i) in the Aldo Leopold wilderness: Aspen canyon, Black Canyon creek, Bonner canyon, Burnt canyon, Diamond creek, Falls canyon, Fisherman canyon, Running Water canyon, South Diamond creek;</p> <p>(ii) in the Gila wilderness: Apache creek, Black Canyon creek, Brush canyon, Canyon creek, Chicken Coop canyon, Clear creek, Cooper canyon, Cow creek, Cub creek, Diamond creek, East Fork Gila river, Gila river, Gilita creek, Indian creek, Iron creek, Langstroth canyon, Lilley canyon, Little creek, Little Turkey creek, Lookout canyon, McKenna creek, Middle Fork Gila river, Miller Spring canyon, Mogollon creek, Panther canyon, Prior creek, Rain creek, Raw Meat creek, Rocky canyon, Sacaton creek, Sapillo creek, Sheep Corral canyon, Skeleton canyon, Squaw creek, Sycamore canyon, Trail canyon, Trail creek, Trout creek, Turkey creek, Turkey Feather creek, Turnbo canyon, West Fork Gila river, West Fork Mogollon creek, White creek, Willow creek, Woodrow canyon.</p> <p>(d) The following waters are designated in the Canadian River basin: in the Pecos wilderness Daily creek, Johns canyon, Middle Fork Lake of Rio de la Casa, Middle Fork Rio de la Casa, North Fork Lake of Rio de la Casa, Rito de Gascon, Rito San Jose, Sapello river, South Fork Rio de la</p>

Permit Number	Areas of Coverage/Where EPA Is Permitting Authority	
		<p>Casa, Sparks creek (Manuelitas creek).</p> <p>(e) The following waters are designated in the San Francisco River basin:</p> <p>(i) in the Blue Range wilderness: Pueblo creek;</p> <p>in the Gila wilderness: Big Dry creek, Lipsey canyon, Little Dry creek, Little Whitewater creek, South Fork Whitewater creek, Spider creek, Spruce creek, Whitewater creek.</p> <p>(f) The following waters are designated in the Mimbres Closed basin: in the Aldo Leopold wilderness Corral canyon, Mimbres river, North Fork Mimbres river, South Fork Mimbres river.</p> <p>(g) The following waters are designated in the Tularosa Closed basin: in the White Mountain wilderness Indian creek, Nogal Arroyo, Three Rivers.</p> <p>(h) The wetlands designated are identified on the maps and list of wetlands within United States forest service wilderness areas designated as outstanding national resource waters published at the New Mexico state library and available on the department's website.</p>
CAR05000I	Hualapai Tribe	
	Tier 3	<p>Spencer, Meriwhitica, Willow Spring, Upper Milkweed Spring, Bridge Canyon, Travertine Spring, Travertine Falls, Diamond Creek, Diamond Creek Spring, Blue Mountain, Metuck, Peach Springs Spring, Westwater, Clay Tank, Hockey Puck, Pocamote Spring, Mohawk Spring, Granite Spring, Three Spring, Warm Spring, Honga Spring, National Canyon Spring, National Canyon, Moss Spring</p>
	White Mountain Apache Tribe of the Fort Apache Indian Reservation	
	Tier 2/2.5	<p>East Fork White River, above R52 Road, East Fork White River below R52 Road, above Rock Cr., Paradise Creek, above Wohlenberg, Ord Creek, Smith Cienega, Bull Cienega, Smith Creek, Big Bonito, Tonto Creek, below Y47 Crossing, Crooked Creek, Boggy Creek, Lofer Cienega Creek, Little Bonito Creek, above Y55 Crossing, Flash Creek, Squaw Creek, Hurricane Lake, Hurricane Creek, Hughey Creek, Bonito Cienega, West Fork Black River, Hall Cienega, Purcell Cienega, Thompson Creek, Carrizo Creek below Corduroy, Carrizo Creek above Corduroy, Cedar Creek, Big Canyon (E. Cedar Creek), Middle Cedar Creek, West Cedar Creek, Cibecue Creek in Box Canyon to Salt river, Cibecue Creek, Box Canyon up to confluence with Salt Creek, Spring Creek, Salt Creek, Cibecue Creek, from confluence w/Salt Cr, to Big Springs, Cibecue Creek, above Big Springs, Rock Springs Creek, Salt Draw, Canyon Creek S. of Chediski Farms, Willow Creek (Lower Canyon Cr), Oak Creek, Canyon Creek. N. of Chediski Fanns,</p>
IDR050000	Tier 3	<p>East Fork White River, in Wilderness Area, Pumpkin Lake</p>
	<p>State of Idaho</p> <p>For Tier 2 and Tier 3 waters, please consult the Idaho Integrated Report, available at: http://www.deq.idaho.gov/water-quality/surface-water/monitoring-assessment/integrated-report.aspx and the closest regional office of the Idaho Department of Environmental Quality: http://www.deq.idaho.gov/regional-offices-issues.aspx.</p>	

Appendix M - Discharge Monitoring Report (DMR) Form

Part 7.2 requires you to use the electronic DMR system to prepare and submit your Discharge Monitoring Report (DMR) form. However, if you are given approval by the EPA Regional Office to use a paper DMR form, and you elect to use it, you must complete and submit the following form.

NPDES FORM 6100-29		UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	OMB No. 2040-0300 Exp. Date: 3/31/2024
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A. Approval to Use Paper NOI Form

1. Have you been granted a waiver from electronic reporting from the EPA Regional Office**? ☐ YES ☐ NO

If yes, check which waiver you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date of approval:

Waiver granted: ☐ The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.

☐ The owner/operator has issues regarding available computer access or computer capability

Name of EPA staff person that granted the waiver:

Date approval obtained: / /

*** Note: Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at <http://www.epa.gov/netdmr/>**

1. NPDES ID:

2. Reason(s) for Submission (Check all that apply):

☐ Submitting monitoring data (Fill in all Sections).

☐ Reporting no discharge for all discharge points for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).

☐ Reporting that your site status has changed to inactive and unstaffed and there are no industrial materials or activities exposed to stormwater (Fill in Sections A, B, C, D, and F.4 (include date of status change in comment field).

☐ Reporting that your site status has changed to active and/or there are industrial materials or activities exposed to stormwater (Fill in all Sections and include date of status change in comment field in Section F.4).

1. Operator Information:

Operator Name:

Mailing Address:

Street:

City: State: ZIP Code: -

Phone: - - Ext.

E-mail:

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

First Name, Middle Initial, Last Name

Organization:

Phone: - - Ext.

E-mail:

D. Facility Information

1. Facility Name:

2. Facility Address:

Street/Location:

City:

State:

ZIP Code:

County or Similar Government Subdivision:

E. Discharge Information

1. Identify monitoring period:

☐

Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

☐ Quarter 1 (January 1 – March 31)

☐ Quarter 1: From / To /

☐ Quarter 2 (April 1 – June 30)

☐ Quarter 2: From / To /

☐ Quarter 3 (July 1 – September 30)

☐ Quarter 3: From / To /

☐ Quarter 4 (October 1 – December 31)

☐ Quarter 4: From / To /

2. Are you required to monitor for cadmium, chromium, lead, nickel, silver, or zinc in freshwater?

☐ YES (Skip to 3)

☐ NO (Skip to 4)


3. What is the hardness level of the receiving water?

(mg/L)

4. Does your facility discharge into any saltwater receiving waters?

☐ YES

☐ NO

		UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM								OMB No. 2040-0300																															
F. Monitoring Information														Note: Make additional copies of this form as necessary.																											
1. Nature of Discharge: <input type="checkbox"/> Rainfall (Complete line items 2.a., 2.b., & 2.c.) <input type="checkbox"/> Snowmelt																																									
2.a. Duration of the rainfall event (hours): 														2.b. Rainfall amount (inches): . 														2.c. Time since previous measurable storm event (days): 													
3.a. Discharge Point ID (list the same 3- digit discharge points identified on the NOI form)	3.b. Check if Any Discharge Points are Substantially Identical to Other Discharge Points Listed	3.c. Check if No Discharge	3.d. Monitoring Type IM, BM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quantity or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance solely attributable to natural background pollutant levels per Part 5.2.6.1	3.k. Exceedance due to run-on per Part 5.2.6.2	3.l Exceedance due to an abnormal event per 5.2.6.3	3.m Exceedance but discharge does not result in any exceedance of water quality standards per Part 5.2.6.5	3.n Aluminum Exceedance demonstrated to not result in an exceedance of your facility- specific criteria per Part 5.2.6.4.a	3.o Copper Exceedance demonstrated to not result in an exceedance of your facility- specific criteria per Part 5.2.6.4.b																											
	<input type="checkbox"/> Substantially identical to discharge point: _____	<input type="checkbox"/>									<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																											
	<input type="checkbox"/> Substantially identical to discharge point: _____	<input type="checkbox"/>									<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																											
	<input type="checkbox"/> Substantially identical to discharge point: _____	<input type="checkbox"/>									<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																											
	<input type="checkbox"/> Substantially identical to discharge point: _____	<input type="checkbox"/>									<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																											
* IM - Indicator monitoring; BM - Benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA																																									
4. Comment and/or Explanation of Any Violations (Reference all attachments here)																																									

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.

[illegible]

Signature: _____

Date: | | / | | / | | |

[illegible]

Instructions for Completing EPA Form 6100-29

**Discharge Monitoring Report (DMR) for Stormwater Discharges
Associated with Industrial Activity Under the NPDES Multi-Sector General Permit**

OMB No. 2040-0300

Who Must Submit A Discharge Monitoring Report to EPA?

Facilities covered under EPA's NPDES Stormwater Multi-Sector General Permit (MSGP or permit) that are required to monitor pursuant to Parts 4.2 and 8 of the permit must submit Discharge Monitoring Reports (DMRs) consistent with the reporting requirements specified in Part 7.1 of the permit.

Completing the Form

Obtain and read a copy of the 2021 MSGP, viewable at <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities>. To complete this form, type or print, using uppercase letters, in the appropriate areas only. Please place each character between the marks. Abbreviate if necessary to stay within the number of characters allowed for each item. Use only one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. Please submit original document with signature in ink - do not send a photocopied signature. **Photocopy your DMR form for your records before you send the completed original form to the appropriate address.**

Section A. Approval to Use Paper DMR Form

You must indicate whether you have been granted a waiver from electronic reporting from the EPA Regional Office. Note that you are not authorized to use this paper DMR form unless the EPA Regional Office has approved its use. Where you have obtained approval to use this form, indicate the waiver that you have been granted, the name of the EPA staff person who granted the waiver, and the date that approval was provided. See <https://www.epa.gov/npdes/contact-us-stormwater> for a list of EPA Regional Office contacts.

Section B. Permit Information

Provide the NPDES ID (i.e., NOI tracking number) assigned to the facility for which this DMR is being submitted.

Indicate your reason(s) for submitting this DMR by checking all boxes that apply. The reasons for submission are defined as follows:

- *Submitting monitoring data:* For each storm sampled, submit one DMR form with data for all discharge points sampled. Select this reason even if you only have monitoring data for some of your discharge points (i.e., some discharge points did not discharge). If you select this reason you are required to complete all Sections of the form.
- *Reporting no discharge for all discharge points for this monitoring period:* Indicates that there were no discharges from all discharge points during this monitoring period. If you select this reason you are only required to complete Sections A, B, C, D, E.1, and G.
- *Reporting that your site status has changed to inactive and unstaffed and there are no industrial materials or activities exposed to stormwater:* Indicates that your facility is currently inactive and unstaffed and there are no industrial materials or activities exposed to stormwater (See Part 4.2.1.3 of the permit for more information). If you select this reason you are only required to complete Sections A, B, C, D, and F.4 (include date of status change in comment field).

- *Reporting that your site status has changed from inactive to active and/or there are industrial materials or activities exposed to stormwater:* Indicates that your facility is currently active (See Part 4.2.1.3 of the permit for more information). If you select this reason you are required to complete all Sections of the form and include date of status change in the comment field in Section F.4.

Section C. Facility Operator Information.

Provide the legal name of the person, firm, public organization, or any other entity that operates the facility for which this DMR is being submitted. An operator of a facility is the legal entity that controls the operation of the facility. Refer to Appendix A of the permit for the definition of "operator". Provide the operator's mailing address, phone number, and e-mail. The operator information in this Section should match the operator information provided on your NOI form.

Provide the name, organization, phone number, an e-mail address for the person who prepared this DMR form.

Section D. Facility Information

Enter the official or legal name and complete street address, including city, state, ZIP code, and county or similar government subdivision of the facility. If the facility lacks a street address, indicate the general location of the facility (e.g., Intersection of State Highways 61 and 34). Complete facility information must be provided for permit coverage to be granted. The facility information in this Section should match the facility information provided on your NOI form.

Section E. Discharge Information.

Indicate the appropriate monitoring period (Quarter 1, 2, 3, or 4) covered by the DMR. "Alternative" monitoring periods can apply to facilities located in arid and semi-arid climates, or in areas subject to snow or prolonged freezing. To use alternative monitoring periods, you must provide a revised monitoring schedule here. If using alternative monitoring periods, identify the first day of the monitoring period through the last day of the monitoring period for each of the four periods. The dates should be displayed as month (Mo) / day (Day). See Parts 4.1.6 and 4.1.7 of the permit for more information.

If you are submitting benchmark monitoring data, identify if your facility is required to collect benchmark samples for one or more hardness-dependent metals (i.e., cadmium, lead, nickel, silver, and zinc). If you select "yes" to this question provide the hardness level of the receiving water (in mg/L). If you select "no" to this question, you must identify if your facility discharges into any saltwater receiving waters.

Instructions for Completing EPA Form 6100-29

**Discharge Monitoring Report (DMR) for Stormwater Discharges
Associated with Industrial Activity Under the NPDES Multi-Sector General Permit**

OMB No. 2040-0300

Section F. Monitoring Information

For the reported monitoring event indicate whether the discharge was from a rainfall or snowmelt event. If you select "rainfall" then indicate the duration (in hours) of the rainfall event, rainfall total (in inches) for that rainfall event, and time (in days) since the previous measurable storm event in line items 2.a-c. For both rainfall and snowmelt monitoring, you must identify the date of collection for the monitoring event in column 3.i. of the table. If the discharge occurs during a period of both rainfall and snowmelt, check both the rainfall and snowmelt boxes and report the appropriate rainfall information in item 2.a-c. To report multiple monitoring events in the same reporting period, copy this form and enter each monitoring event separately with data for all discharge points sampled.

Identify all the discharge points from your facility that discharge stormwater. Each discharge point must be assigned a unique 3-digit number (e.g., 001, 002, 003), and should match the discharge points identified on your NOI form.

If any discharge points are substantially identical, check the box in 3.b and identify the discharge point that the discharge point in 3.a is substantially identical to. In 3.d – k, you only need to provide benchmark monitoring data for one of the discharge points if it is substantially identical.

For any discharge point for which there was no discharge during the monitoring period, check the box in 3.c.

In 3.d, identify the type of monitoring using the specified codes, in parentheses, below:

- (IM) – Indicator monitoring
- (BM) – Benchmark monitoring
- (ELG) – Annual effluent limitations guidelines monitoring;
- (S/T) – State- or Tribal-specific monitoring;
- (I) – Impaired waters monitoring; or
- (O) – Other monitoring as required by EPA.

In 3.e, enter each "parameter" (or "pollutant") monitored. For BM and ELG monitoring, use the same parameter name as in Part 8 of the permit.

In 3.f., enter a sample measurement value for each parameter analyzed and required to be reported. Enter "ND" (i.e., not detected) for any sample results below the method detection limit or "BQL" (i.e., below quantitation limit) for sample results above the detection limit but below the quantitation limit.

In 3.g., enter the units for sample measurement values (i.e., "mg/L" for milligrams per liter) for each parameter analyzed and required to be reported. For monitoring results reported as ND or BQL this space will be left blank and the units will be reported in Column 3.f.

3.h. must be completed for any monitoring results reported as ND or BQL in the "Quality or Concentration" column. For ND, report the laboratory detection level and units in this column. For BQL, report the laboratory quantitation limit and units in this column.

In 3.i. identify the sampling date for each parameter monitoring result reported on this form.

3.j. *Exceedance solely attributable to natural background pollutant levels:* Check box if following the first 4 quarters of benchmark monitoring (or sooner if the exceedance is triggered by less than 4 quarters of data) you have determined that the exceedance of the benchmark is attributable solely to the presence of that pollutant in the natural background for that discharge point and any substantially identical discharge points, or for impaired waters

monitoring, the presence of the pollutant is caused solely by natural background, provided that all of the conditions in Part 5.2.6.1 are met.

3.k. *Exceedance due to run-on:* Check box if you can demonstrate and obtain EPA agreement that run-on from a neighboring source (e.g., a source external to your facility) is the cause of the exceedance, provided that the conditions in Part 5.2.6.2 are met.

3.l. *Exceedance due to an abnormal event:* Check box if one single sampling event is abnormal and you have immediately documented per Part 5.3 that the single event was abnormal and met all other conditions in Part 5.2.6.3.

3.m. *Exceedance but discharge does not result in any exceedance of water quality standards per Part 5.2.6.5:* Check box if you can demonstrate through an analysis that an exceedance triggering AIM requirements does not result in any exceedance of applicable water quality standards, provided that all the conditions in Part 5.2.6.5 are met.

3.n. *Aluminum exceedance demonstrated to not result in an exceedance of your facility-specific criteria per Part 5.2.6.4.a:* Check box if you can demonstrate through an analysis that an aluminum exceedance does not result in an exceedance of your facility-specific criteria using the national recommended water quality criteria in-lieu of the applicable MSGP benchmark threshold.

3.o. *Copper exceedance demonstrated to not result in an exceedance of your facility-specific criteria per Part 5.2.6.4.b:* Check box if you can demonstrate through an analysis that a copper exceedance does not result in an exceedance of your facility-specific criteria using the national recommended water quality criteria in-lieu of the applicable MSGP benchmark threshold.

Where violations of the permit requirements are reported, include a brief explanation to describe the cause and corrective actions taken, and reference each violation by date. Also, this section should include any additional comments such as are required when changing site status from inactive and unstaffed to active or vice versa. Attach additional pages if you need more space.

Attach additional copies of Section F as necessary to address all discharge points and parameters.

Section G. Certification Information

DMRs must be signed by a person described below, or by a duly authorized representative of that person.

For a corporation: By a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means:

(i) 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 (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated

Appendix N - List of SIC and NAICS Codes

Sector A. Timber Products					
Sub-sector	SIC Codes		NAICS Codes		Notes
A3	2411	Logging (log storage and handling activities only; wet deck storage areas only authorized if no chemical additives are used in the spray water or applied to the logs.)	113310	Logging	
A1	2421	General Sawmills and Planing Mills (sawmills)	321113	Sawmills	
		(lumber manufacturing from purchased lumber, softwood cut stock, wood lath, fence pickets, and planing mill products)	321912	Cut Stock, Resawing Lumber, and Planing	
		(softwood flooring)	321918	Other Millwork (including Flooring)	
		(box lumber made from purchased lumber)	321920	Wood Container and Pallet Manufacturing	
		(kiln drying)	321999	All Other Miscellaneous Wood Product Manufacturing	
A4	2426	Hardwood Dimension and Flooring Mills (hardwood dimension lumber made from logs or bolts)	321113	Sawmills	
		(hardwood cut stock, resawing hardwood lumber, and planing purchased hardwood lumber except flooring)	321912	Cut Stock, Resawing Lumber, and Planing	
		(hardwood flooring)	321918	Other Millwork (including Flooring)	
		(wood furniture frames and finished furniture parts)	337215	Showcase, Partition, Shelving, and Locker Manufacturing	
	2429	Special Product Sawmills, Not Elsewhere Classified (shingle mills, shakes)	321113	Sawmills	
		(stave manufacturing from purchased lumber)	321912	Cut Stock, Resawing Lumber, and Planing	
		(cooperage stock)	321920	Wood Container and Pallet Manufacturing	
		(excelsior)	321999	All Other Miscellaneous Wood Product Manufacturing	
	2431	Millwork (wood windows and doors)	321911	Wood Window and Door Manufacturing	

Sector A. Timber Products					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(except wood windows and doors)	321918	Other Millwork (including Flooring)	
	2435	Hardwood Veneer and Plywood	321211	Hardwood Veneer and Plywood Manufacturing	
	2436	Softwood Veneer and Plywood	321212	Softwood Veneer and Plywood Manufacturing	
	2439	Structural Wood Members, Not Elsewhere Classified			
		(except trusses)	321213	Engineered Wood Member (except Truss) Manufacturing	
		(trusses)	321214	Truss Manufacturing	
A5	2441	Nailed and Lock Corner Wood Boxes and Shook	321920	Wood Container and Pallet Manufacturing	
A4	2448	Wood Pallets and Skids	321920	Wood Container and Pallet Manufacturing	
	2449	Wood Containers, Not Elsewhere Classified	321920	Wood Container and Pallet Manufacturing	
	2451	Mobil Homes	321991	Manufactured Home (Mobil Home) Manufacturing	
	2452	Prefabricated Wood Buildings and Components	321992	Prefabricated Wood Building Manufacturing	
A2	2491	Wood Preserving	321114	Wood Preservation	
A4	2493	Reconstituted Wood Products	321219	Reconstituted Wood Product Manufacturing	
	2499	Wood Products, Not Elsewhere Classified			
		(wood containers, such as noncoopered vats and reed or straw baskets)	321920	Wood Container and Pallet Manufacturing	
		(except wood containers, wood cooling towers, cork life preservers, mirror or picture frames, and laundry hampers of reed, rattan, and willow)	321999	All Other Miscellaneous Wood Product Manufacturing	
		(wood cooling towers)	333415	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing	
		(laundry hampers of reed, rattan, and willow)	337125	Household Furniture (except Wood and Metal) Manufacturing	
		(cork life preservers)	339113	Surgical Appliance and Supplies Manufacturing	
	(mirror and picture frames)	339999	All Other Miscellaneous Manufacturing		

Sector B. Paper and Allied Products Manufacturing					
Sub-sector	SIC Codes		NAICS Codes		Notes
B2	2611	Pulp Mills			
		(pulp producing mills only)	322110	Pulp Mills	
		(producing paper except newsprint)	322121	Paper (except Newsprint) Mills	
		(producing newsprint)	322122	Newsprint Mills	
		(producing paperboard)	322130	Paperboard Mills	
	2621	Paper Mills			
		(except newsprint mills)	322121	Paper (except Newsprint) Mills	
		(newsprint mills)	322122	Newsprint Mills	
B1	2631	Paperboard Mills	322130	Paperboard Mills	
B2	2652	Setup Paperboard Boxes	322213	Setup Paperboard Box Manufacturing	
	2653	Corrugated and Solid Fiber Boxes	322211	Corrugated and Solid Fiber Boxes Manufacturing	
	2655	Fiber Cans, Tubes, Drums, and Similar Products	322214	Fiber Can, Tube, Drum, and Similar Products Manufacturing	
	2656	Sanitary Food Containers, Except Folding	322215	Nonfolding Sanitary Food Container Manufacturing	
	2657	Folding Paperwork Boxes	322212	Folding Paperboard Box Manufacturing	
	2671	Packaging Paper and Plastics Film, Coated and Laminated			
		(except single-web and multi-web plastics packaging film and sheets)	322221	Coated and Laminated Packaging Paper and Plastics Film Manufacturing	
		(single-web and multi-web plastics packaging film and sheets)	326112	Plastics Packaging Film and Sheet (including Laminated) Manufacturing	Any facility whose primary activity is manufacturing single-web and multi-web plastics packaging film and sheets (SIC 2671 / NAICS 326112) should be regulated under Sector Y, but may continue to be regulated under Sector B, or alternatively, under Sector AD. Sectors Y, B, and AD do not have specific requirements for facilities manufacturing single-web and multi-web plastics packaging film and sheets. However, under Sector AD EPA could establish additional facility-specific monitoring and reporting requirements.
	2672	Coated and Laminated Paper, NEC	322222	Coated and Laminated Paper Manufacturing	Regulatory burden would not differ between Sectors B and Y.

Sector B. Paper and Allied Products Manufacturing					
Sub-sector	SIC Codes		NAICS Codes		Notes
	2673	Plastics, Foil, and Coated Paper Bags	322223	Plastics, Foil, and Coated Paper Bags Manufacturing	
		(except single-web or multi-web plastics bags)			
		single-web and multi-web plastics bags)	326111	Plastics Bag Manufacturing	Any facility whose primary activity is manufacturing single-web and multi-web plastics bags (SIC 2673 / NAICS 326111) should be regulated under Sector Y, but may continue to be regulated under Sector B, or alternatively, under Sector AD. Sectors Y, B, and AD do not have specific requirements for facilities manufacturing single-web and multi- web plastics bags. However, under Sector AD EPA could establish additional facility-specific monitoring and reporting requirements.
					Regulatory burden would not differ between Sectors B and Y.
	2674	Uncoated Paper and Multiwall Bags	322224	Uncoated Paper and Multiwall Bags Manufacturing	
	2675	Die Cut Paper and Paperboard and Cardboard (pasted, lined, laminated, or surface-coated paperboard)	322226	Surface-Coated Paperboard Manufacturing	
		(die cut paper and paperboard office supplies, such as file folders, tabulating cards, and report covers)	322231	Die Cut Paper and Paperboard Office Supplies Manufacturing	
		(except pasted, lined, laminated, or surface-coated paperboard and die-cut paper and paperboard office supplies)	322299	All Other Converted Paper Product Manufacturing	
	2676	Sanitary Paper Products	322291	Sanitary Paper Product Manufacturing	
	2677	Envelopes	322232	Envelope Manufacturing	
	2678	Stationery, Tablets, and Related Products	322233	Stationery, Tablets, and Related Product Manufacturing	
	2679	Converted Paper and Paperboard Products, NEC (corrugated paper)	322211	Corrugated and Solid Fiber Box Manufacturing	
		(wallpaper and gift wrap paper)	322222	Coated and Laminated Paper Manufacturing	

Sector B. Paper and Allied Products Manufacturing					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(paper supplies for business machines, such as adding machine tape, and other paper office supplies)	322231	Die Cut Paper and Paperboard Office Supplies Manufacturing	
		(except corrugated paper, wall paper, gift wrap paper, paper supplies for business machines, and other paper office supplies)	322299	All Other Converted Paper Product Manufacturing	

Sector C. Chemical and Allied Products Manufacturing					
Sub-sector	SIC Codes		NAICS Codes		Notes
C2	2812	Alkalies and Chlorine	325181	Alkalies and Chlorine Manufacturing	
	2813	Industrial Gases	325120	Industrial Gas Manufacturing	
	2816	Inorganic Pigments			
		(except bone and lamp black)	325131	Inorganic Dye and Pigment Manufacturing	
		(bone and lamp black)	325182	Carbon Black Manufacturing	
	2819	Industrial Inorganic Chemicals, Not Elsewhere Classified			
		(recovering sulfur from natural gas)	211112	Natural Gas Liquid Extraction	
		(inorganic dyes)	325131	Inorganic Dye and Pigment Manufacturing	
		(other)	325131	All Other Basic Inorganic Chemical Manufacturing	
		(activated carbon and charcoal)	325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing	
		(alumina)	331311	Alumina Refining	Any facility whose primary activity is alumina refining (NAICS 331311) should be regulated under Sector F, but may continue to be regulated under Sector C. Sector C requires sector/subsector specific benchmark monitoring for total aluminum, total iron, and nitrate plus nitrite nitrogen. Sector F applies additional technology-based effluent limits comprised of good housekeeping measures; additional SWPPP requirements; and additional inspection requirements.

Sector C. Chemical and Allied Products Manufacturing					
Sub-sector	SIC Codes		NAICS Codes		Notes
					Regulatory burdens differ between Sectors C and F but determining which sector would be more burdensome would depend on the regulated facility.
C4	2821	Plastics Materials, Synthetic Resins, and Nonvulcanizable Elastomers	325211	Plastics Material and Resin Manufacturing	
	2822	Synthetic Rubber	325212	Synthetic Rubber Manufacturing	
	2823	Cellulosic Manmade Fibers	325221	Cellulosic Organic Fiber Manufacturing	
	2824	Manmade Organic Fibers, Except Cellulosic	325222	Noncellulosic Organic Fiber Manufacturing	
C5	2833	Medicinal Chemicals and Botanical Products	325411	Medicinal and Botanical Manufacturing	
	2834	Pharmaceutical Preparations	325412	Pharmaceutical Preparation Manufacturing	
	2835	In Vitro and In Vivo Diagnostic Substances (except in vitro diagnostic)	325412	Pharmaceutical Preparation Manufacturing	
		(in vitro diagnostic substances)	325413	In Vitro Diagnostic Substance Manufacturing	
	2836	Biological Products, Except Diagnostic Substances	325414	Biological Product (except Diagnostic) Manufacturing	
C3	2841	Soaps and Other Detergents, Except Specialty Cleaners	325611	Soap and Other Detergent Manufacturing	
	2842	Specialty Cleaning, Polishing, and Sanitation Preparations	325612	Polish and Other Sanitation Good Manufacturing	
	2843	Surface Active Agents, Finishing Agents, Sulfonated Oils, and Assistants	325613	Surface Active Agent Manufacturing	
	2844	Perfumes, Cosmetics, and Other Toilet Preparations (toothpaste, gel and dentifrice powders)	325611	Soap and Other Detergent Manufacturing	
		(except toothpaste, gel and dentifrice powders)	325620	Toilet Preparation Manufacturing	
C5	2851	Paints, Varnishes, Lacquers, Enamels, and Allied Products	325510	Paint and Coating Manufacturing	
	2861	Gum and Wood Chemicals	325191	Gum and Wood Chemical Manufacturing	
	2865	Cyclic Organic Crudes and Intermediates, and Organic Dyes and Pigments (aromatics)	325110	Petrochemical Manufacturing	
		(organic dyes and pigments)	325132	Synthetic Organic Dye and Pigment Manufacturing	

Sector C. Chemical and Allied Products Manufacturing						
Sub-sector	SIC Codes		NAICS Codes		Notes	
		(except aromatics and organic dyes and pigments)	325192	Cyclic Crude and Intermediate Manufacturing		
	2869	Industrial Organic Chemicals, Not Elsewhere Classified	325110	Petrochemical Manufacturing		
		(aliphatics)				
		(fluorocarbon gases)	325120	Industrial Gas Manufacturing		
		(carbon bisulfide)	325188	All Other Basic Inorganic Chemical Manufacturing		
		(cyclopropane, diethylcyclohexane, naphthalene sulfonic acid)	325192	Cyclic Crude and Intermediate Manufacturing		
		(ethyl alcohol)	325193	Ethyl Alcohol Manufacturing		
		(except aliphatics, carbon bisulfide, ethyl alcohol, cyclopropane, diethylcyclohexane, naphthalene sulfonic acid, synthetic hydraulic fluids, and fluorocarbon gases)	325199	All Other Basic Organic Chemical Manufacturing		
		(synthetic hydraulic fluids)	325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing		
C1	2873	Nitrogenous Fertilizers	325311	Nitrogenous Fertilizer Manufacturing		
	2874	Phosphatic Fertilizers	325312	Phosphatic Fertilizer Manufacturing		
	2875	Fertilizers, Mixing Only	325314	Fertilizers (Mixing Only) Manufacturing		
	2879	Pesticides and Agricultural Chemicals, NEC	325320	Pesticides and Other Agricultural Chemical Manufacturing		
C5	2891	Adhesives and Sealants	325520	Adhesive Manufacturing		
	2892	Explosives	325920	Explosives Manufacturing		
	2893	Printing Ink	325910	Printing Ink Manufacturing		
	2895	Carbon Black	325182	Carbon Black Manufacturing		
	2899	Chemicals and Chemical Preparations, NEC				
		(table salt)	311942	Spice and Extract Manufacturing (table salt only)		
		(fatty acids)	325199	All Other Basic Organic Chemical Manufacturing		
		(frit and plastic wood fillers)	325510	Paint and Coating Manufacturing		
		(except frit, plastic wood fillers, fatty acids, and table salt)	325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing		
	2911	Petroleum Refining	324110	Petroleum Refineries		
	3952	Lead Pencils, Crayons, and Artists' Materials (limited to inks and paints, including china painting enamels)				
		(drawing inks and india ink)	325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing		

Sector C. Chemical and Allied Products Manufacturing					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(china painting enamels, platinum paint for burnt wood or leather work, paints for china painting, artist's paints, and artist's watercolors)	339942	Lead Pencil and Art Good Manufacturing	

Sector D. Asphalt Paving and Roofing Materials Manufacturers and Lubricant Manufacturers					
Sub-sector	SIC Codes		NAICS Codes		Notes
D1	2951	Asphalt Paving Mixtures and Blocks	324121	Asphalt Paving Mixture and Block Manufacturing	
	2952	Asphalt Felt and Coatings	324122	Asphalt Shingle and Coating Materials Manufacturing	
D2	2992	Lubricating Oils and Greases	324191	Petroleum Lubricating Oil and Grease Manufacturing	
	2999	Products of Petroleum and Coal, Not Elsewhere Classified	324199	All Other Petroleum and Coal Products Manufacturing	

Sector E. Glass, Clay, Cement, Concrete, and Gypsum Product Manufacturing					
Sub-sector	SIC Codes		NAICS Codes		Notes
E3	3211	Flat Glass	327211	Flat Glass Manufacturing	
	3221	Glass Containers	327213	Glass Container Manufacturing	
	3229	Pressed and Blown Glass and Glassware, Not Elsewhere Classified	327212	Other Pressed and Blown Glass and Glassware Manufacturing	
	3231	Glass Product Manufacturing Made of Purchased Glass	327215	Glass Product Manufacturing Made of Purchased Glass	
	3241	Hydraulic Cement	327310	Cement Manufacturing	
E1	3251	Brick and Structural Clay Tile (except slumped brick)	327121	Brick and Structural Clay Tile Manufacturing	
		(slumped brick)	327331	Concrete Block and Brick Manufacturing	
	3253	Ceramic Wall and Floor Tile	327122	Ceramic Wall and Floor Tile Manufacturing	
	3255	Clay Refractories	327124	Clay Refractory Manufacturing	
	3259	Structural Clay Products, Not Elsewhere Classified	327123	Other Structural Clay Product Manufacturing	
	3261	Vitreous China Plumbing Fixtures and China and Earthenware Fittings and Bathroom Accessories	327111	Vitreous China Plumbing Fixture and China and Earthenware Bathroom Accessories Manufacturing	

Sector E. Glass, Clay, Cement, Concrete, and Gypsum Product Manufacturing					
Sub-sector	SIC Codes		NAICS Codes		Notes
	3262	Vitreous China Table and Kitchen Articles	327112	Vitreous China, Fine Earthenware, and Other Pottery Product Manufacturing	
	3263	Fine Earthenware (Whiteware) Table and Kitchen Articles	327112	Vitreous China, Fine Earthenware, and Other Pottery Product Manufacturing	
	3264	Porcelain Electrical Supplies	327113	Porcelain Electrical Supply Manufacturing	
	3269	Pottery Products, Not Elsewhere Classified	327112	Vitreous China, Fine Earthenware, and Other Pottery Product Manufacturing	
E2	3271	Concrete Block and Brick	327331	Concrete Block and Brick Manufacturing	
	3272	Concrete Products, Except Block and Brick			
		(concrete pipe)	327332	Concrete Pipe Manufacturing	
		(concrete products, except dry mix concrete and pipe)	327390	Other Concrete Product Manufacturing	
		(dry mixture concrete)	327999	All Other Miscellaneous Nonmetallic Mineral Product Manufacturing	
	3273	Ready-Mixed Concrete	327320	Ready-Mix Concrete Manufacturing	
	3274	Lime Manufacturing			
		Calcium hydroxide (i.e., hydrated lime) manufacturing	327410	Lime Manufacturing	
		Calcium oxide (i.e., quicklime) manufacturing	327410	Lime Manufacturing	
		Dolomite, dead-burned, manufacturing	327410	Lime Manufacturing	
		Hydrated lime (i.e., calcium hydroxide) manufacturing	327410	Lime Manufacturing	
		Quicklime (i.e., calcium oxide) manufacturing	327410	Lime Manufacturing	
		Agricultural lime manufacturing	327410	Lime Manufacturing	
		Dolomitic lime manufacturing	327410	Lime Manufacturing	
	3275	Gypsum Products	327420	Gypsum Product Manufacturing	

Sector E. Glass, Clay, Cement, Concrete, and Gypsum Product Manufacturing					
Sub-sector	SIC Codes		NAICS Codes		Notes
E3	3281	Cut Stone and Stone Products	327991	Cut Stone and Stone Product Manufacturing	
	3291	Abrasive Products (except steel wool manufacturing)	327910	Abrasive Product Manufacturing	
		(steel wool manufacturing)	332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	Any facility whose primary activity is steel wool manufacturing (NAICS 332999) should be regulated under Sector AA, but may continue to be regulated under Sector E. Sector AA applies additional technology-based effluent limits comprised of good housekeeping measures, spill prevention and response procedures, and spills and leaks; additional SWPPP requirements; and additional inspection requirements. Sector E applies additional technology-based effluent limits comprised of good housekeeping measures, and additional SWPPP requirements.
					Regulatory burden would likely be greater under Sector AA.
	3292	Asbestos Products	327999	All Other Miscellaneous Nonmetallic Mineral Product Manufacturing	
		(except brake pads and linings)			
		(asbestos brake linings and pads)		336340	Motor Vehicle Brake System Manufacturing
		(asbestos clutch facings, motor vehicle)	336350	Motor Vehicle Transmission and Power Train Parts Manufacturing	
	3295	Minerals and Earths, Ground or Otherwise Treated (grinding, washing, separating, etc. of kaolin and ball clay)	212324	Kaolin and Ball Clay Mining	
		(grinding, washing, separating, etc. of clay, ceramic, and refractory minerals not elsewhere classified)	212325	Clay and Ceramic and Refractory Minerals Mining	
		(grinding, washing, separating, etc. of chemical and fertilizer minerals, not elsewhere classified)	212393	Other Chemical and Fertilizer Mineral Mining	
		(grinding, washing, separating, etc. of nonmetallic minerals, not elsewhere classified)	212399	All Other Nonmetallic Mineral Mining	
		(except grinding, washing, separating, etc. of nonmetallic minerals)	327992	Ground or Treated Mineral and Earth Manufacturing	

Sector E. Glass, Clay, Cement, Concrete, and Gypsum Product Manufacturing					
Sub-sector	SIC Codes		NAICS Codes		Notes
	3296	Mineral Wool	327993	Mineral Wool Manufacturing	
	3297	Nonclay Refractories	327125	Nonclay Refractory Manufacturing	
	3299	Nonmetallic Mineral Products, Not Elsewhere Classified			
		(clay statuary)	327112	Vitreous China, Fine Earthenware, and Other Pottery Product Manufacturing	
		(moldings, ornamental and architectural plaster work, and gypsum statuary)	327420	Gypsum Product Manufacturing	
		(except moldings, ornamental and architectural plaster work, clay statuary, and gypsum statuary)	327999	All Other Miscellaneous Nonmetallic Mineral Product Manufacturing	

Sector F. Primary Metals					
Sub-sector	SIC Codes		NAICS Codes		Notes
F1	3312	Steel Works, Blast Furnaces (Including Coke Ovens), and Rolling Mills			
		(coke oven products [e.g., coke, gases, tars] made in coke oven establishments)	324199	All Other Petroleum and Coal Products Manufacturing	Any facility whose primary activity is manufacturing coke oven products (e.g., coke, gases, tars) made in coke oven establishments should be regulated under Sector D, but may continue to be regulated under Sector F. Sector F requires sector-specific benchmark monitoring requirements for total aluminum and total zinc, Sector D does not require benchmark monitoring from these facilities.
		(except coke ovens not integrated with steel mills and hot-rolling purchased steel)	331111	Iron and Steel Mills	Regulatory burden would be greater under Sector F.
		(hot-rolling purchased steel)	331221	Rolled Steel Shape Manufacturing	
	3313	Electrometallurgical Products, Except Steel	331112	Electrometallurgical Ferroalloy Product Manufacturing	

Sector F. Primary Metals					
Sub-sector	SIC Codes		NAICS Codes		Notes
	3315	Steel Wiredrawing and Steel Nails and Spikes	331222	Steel Wire Drawing	
		(steel wire drawing)			
	3316	Cold-Rolled Steel Sheet, Strip, and Bars	331221	Rolled Steel Shape Manufacturing	
	3317	Steel Pipe and Tubes	331210	Iron and Steel Pipe and Tube Manufacturing from Purchased Steel	
F2	3321	Gray and Ductile Iron Foundries	331511	Iron Foundries	
	3322	Malleable Iron Foundries	331511	Iron Foundries	
	3324	Steel Investment Foundries	331512	Steel Investment Foundries	
	3325	Steel Foundries, NEC	331513	Steel Foundries (except Investment)	
F5	3331	Primary Smelting and Refining of Copper	331411	Primary Smelting and Refining of Copper	
	3334	Primary Production of Aluminum	331312	Primary Aluminum Production	
	3339	Primary Smelting and Refining of Nonferrous Metals, Except Copper and Aluminum	331419	Primary Smelting and Refining of Nonferrous Metal (except Copper and Aluminum)	
	3341	Secondary Smelting and Refining of Nonferrous Metals			
		(aluminum)	331314	Secondary Smelting and Alloying of Aluminum	
		(copper)	331423	Secondary Smelting, Refining and Alloying of Copper	
		(except copper and aluminum)	331492	Secondary Smelting, Refining and Alloying of Nonferrous Metal (except Copper and Aluminum)	
F3	3351	Rolling, Drawing, and Extruding of Copper	331421	Copper Rolling, Drawing, and Extruding	
	3353	Aluminum Sheet, Plate, and Foil	331315	Aluminum Sheet, Plate, and Foil Manufacturing	
	3354	Aluminum Extruded Products	331316	Aluminum Extruded Product Manufacturing	
	3355	Aluminum Rolling and Drawing, Not Elsewhere Classified	331319	Other Aluminum Rolling and Drawing	
	3356	Rolling, Drawing, and Extruding of Nonferrous Metals, Except Copper and Aluminum	331491	Nonferrous Metal (Except Copper and Aluminum) Rolling, Drawing, and Extruding	
	3357	Drawing and Insulating of Nonferrous Wire			
		(aluminum wire drawing)	331319	Other Aluminum Rolling and Drawing	
		(copper wire drawing)	331422	Copper Wire (except Mechanical) Drawing	
		(wire drawing except copper or aluminum)	331491	Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding	

Sector F. Primary Metals					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(fiber optic cable-insulating only)	335921	Fiber Optic Cable Manufacturing	
		(communication and energy wire, except fiber optic-insulating only)	335929	Other Communication and Energy Wire Manufacturing	
F4	3363	Aluminum Die Castings	331521	Aluminum Die Casting Foundries	
	3364	Nonferrous Die Castings, Except Aluminum	331522	Nonferrous (Except Aluminum) Die Casting Foundries	
	3365	Aluminum Foundries	331524	Aluminum Foundries (Except Die-Casting)	
	3366	Copper Foundries	331525	Copper Foundries (Except Die-Casting)	
	3369	Nonferrous Foundries, Except Copper and Aluminum	331528	Other Nonferrous Foundries (Except Die-Casting)	
F5	3398	Metal Heat Treating	332811	Metal Heat Treating	
	3399	Primary Metal Products, Not Elsewhere Classified			
		(iron ore recovery from open hearth slag)	331111	Iron and Steel Mills	
		(ferrous powder, paste, flakes, etc.)	331221	Rolled Steel Shape Manufacturing	
		(aluminum powder, paste, flakes, etc.)	331314	Secondary Smelting and Alloying of Aluminum	
		(copper powder, paste, flakes, etc.)	331423	Secondary Smelting, Refining, and Alloying of Copper	
		(nonferrous powder, paste, flakes, etc. except copper and aluminum)	331492	Secondary Smelting, Refining, and Alloying of Nonferrous Metal (except Copper and Aluminum)	
(nonferrous nails, brads, staples, tacks, etc. made from purchased nonferrous wire)	332618	Other Fabricated Wire Product Manufacturing			

Sector G. Metal Mining (Ore Mining and Dressing)					
Sub-sector	SIC Codes		NAICS Codes		Notes
G1	1021	Copper Ores	212234	Copper Ore and Nickel Ore Mining	
G2	1011	Iron Ores	212210	Iron Ore Mining	
	1021	Copper Ores	212234	Copper Ore and Nickel Ore Mining	
	1031	Lead and Zinc Ores	212231	Lead Ore and Zinc Ore Mining	
	1041	Gold Ores	212221	Gold Ore Mining	
	1044	Silver Ores	212222	Silver Ore Mining	
	1061	Ferroalloy Ores, Except Vanadium (nickel)	212234	Copper Ore and Nickel Ore Mining	
		(other ferroalloys except nickel)	212299	All Other Metal Ore Mining	
		Metal Mining Services			

Sector G. Metal Mining (Ore Mining and Dressing)					
Sub-sector	SIC Codes		NAICS Codes		Notes
	1081	(except site preparation and related activities performed on a contract or fee basis and geophysical surveying and mapping)	213114	Support Activities for Metal Mining	
		(site preparation and related construction activities on a contract basis)	238910	Site Preparation Contractors	
	1094	Uranium-Radium-Vanadium Ores	212291	Uranium-Radium-Vanadium Ore Mining	
	1099	Miscellaneous Metal Ores, Not Elsewhere Classified	212299	All Other Metal Ore Mining	

Sector H. Coal Mines and Coal Mining-Related Facilities					
Sub-sector	SIC Codes		NAICS Codes		Notes
H1	1221	Bituminous Coal and Lignite Surface Mining	212111	Bituminous Coal and Lignite Surface Mining	
	1222	Bituminous Coal Underground Mining	212112	Bituminous Coal Underground Mining	
	1231	Anthracite Mining	212113	Anthracite Mining	
	1241	Coal Mining Services (except site preparation and related construction activities on a contract basis)	213113	Support Activities for Coal Mining	
		(site preparation and related construction activities on a contract basis)	238910	Site Preparation Contractors	

Sector I. Oil and Gas Extraction					
Sub-sector	SIC Codes		NAICS Codes		Notes
I1	1311	Crude Petroleum and Natural Gas	211111	Crude Petroleum and Natural Gas Extraction	
	1321	Natural Gas Liquids	211112	Natural Gas Liquid Extraction	
	1381	Drilling Oil and Gas Wells	213111	Drilling Oil and Gas Wells	
	1382	Oil and Gas Field Exploration Services	213112	Support Activities for Oil and Gas Operations	
	1389	Oil and Gas Field Services, Not Elsewhere Classified (except construction of field gathering lines, site preparation and related construction activities performed on a contract or fee basis)	213112	Support Activities for Oil and Gas Operations	
		(construction of field gathering lines on a contract or fee basis)	237120	Oil and Gas Pipeline and Related Structures Construction	
		(site preparation and related construction activities on a contract basis)	238910	Site Preparation Contractors	

Sector J. Mineral Mining and Dressing					
Sub-sector	SIC Codes		NAICS Codes		Notes
J2	1411	Dimension Stone	212311	Dimension Stone Mining and Quarrying	
	1422	Crushed and Broken Limestone	212312	Crushed and Broken Limestone Mining and Quarrying	
	1423	Crushed and Broken Granite	212313	Crushed and Broken Granite Mining and Quarrying	
	1429	Crushed and Broken Stone, Not Elsewhere Classified	212319	Other Crushed and Broken Stone Mining and Quarrying	
J1	1442	Construction Sand and Gravel	212321	Construction Sand and Gravel Mining	
	1446	Industrial Sand	212322	Industrial Sand Mining	
J3	1455	Kaolin and Ball Clay	212324	Kaolin and Ball Clay Mining	
	1459	Clay, Ceramic, and Refractory Minerals, Not Elsewhere Classified	212325	Clay, Ceramic, and Refractory Minerals Mining	
	1474	Potash, Soda, and Borate Minerals	212391	Potash, Soda, and Borate Mineral Mining	
	1475	Phosphate Rock	212392	Phosphate Rock Mining	
	1479	Chemical and Fertilizer Mineral Mining, Not Elsewhere Classified	212393	Other Chemical and Fertilizer Mineral Mining	

Sector J. Mineral Mining and Dressing				
Sub-sector	SIC Codes		NAICS Codes	
J2	1481	Nonmetallic Minerals Services, Except Fuels		
		(except geophysical surveying and mapping and site preparation and related construction activities performed on a contract or fee basis)	213115	Support Activities for Nonmetallic Minerals (except Fuels)
		(site preparation and related construction activities on a contract basis)	238910	Site Preparation Contractors
	1499	Miscellaneous Nonmetallic Minerals, Except Fuels		
		(except bituminous limestone and bituminous sandstone)	212399	All Other Nonmetallic Mineral Mining

Sector K. Hazardous Waste Treatment, Storage or Disposal Facilities			
Sub-Sector	Activity Code	Narrative Description	Notes
K1	HZ	<ul style="list-style-type: none"> Hazardous waste treatment Hazardous waste storage Hazardous waste disposal Hazardous waste facilities operating under interim status Hazardous waste facilities operating under a permit under Subtitle C of RCRA 	<p>HZ is the Activity Code (i.e., non-SIC / non-NAICS designation) for this Sector. It potentially applies to any facility regardless of SIC / NAICS Code, in addition to these specifically related to hazardous waste:</p> <ul style="list-style-type: none"> SIC 4953 Refuse Systems (hazardous waste treatment and disposal); NAICS 562211 Hazardous Waste Treatment and Disposal; NAICS 562112 Hazardous Waste Collection (hazardous waste transfer stations).

Sector L. Landfills and Land Application Sites			
Sub-Sector	Activity Code	Narrative Description	Notes
L1	LF	<ul style="list-style-type: none"> All Landfill, Land Application Sites and Open Dumps 	<p>LF is the Activity Code (i.e., non-SIC and non-NAICS designation) for this Sector. It may apply to any facility / SIC Code / NAICS Code, in addition to these specifically related to landfills and landfill application sites:</p> <ul style="list-style-type: none"> SIC 4953 Refuse Systems (solid waste landfills); NAICS 562212 Solid Waste Landfill. <p>Industrial waste is waste from any of the facilities covered by the MSGP (also described in 40 CFR 122.26(b)(14)).</p>
L2	LF	All Landfill, Land Application Sites and Open Dumps, except Municipal Solid Waste Landfill (MSWLF) Areas Closed in Accordance with 40 CFR 258.	

Sector M. Automobile Salvage Yards

Sub-sector	SIC Codes		NAICS Codes		Notes
M1	5015	Motor Vehicle Parts, Used (merchant wholesalers except those selling via retail method)	423140	Motor Vehicle Parts (Used) Merchant Wholesalers	

Sector N. Scrap Recycling Facilities

Sub-sector	SIC Codes		NAICS Codes		Notes
N1	5093	Scrap and Waste Materials (merchant wholesalers except Source-Separated Recycling)	423930	Recyclable Material Merchant Wholesalers	
N2	5093	Scrap and Waste Materials (Source-Separated Recycling)	423930	Recyclable Material Merchant Wholesalers	

Sector O. Steam Electric Generating Facilities

Sub-Sector	Activity Code	Narrative Description	Notes
O1	SE	<ul style="list-style-type: none"> steam electric power generation using coal, including coal handling areas steam electric power generation using natural gas steam electric power generation using oil steam electric power generation using nuclear energy steam electric power generation using any other fuel to produce a steam source coal pile runoff (includes effluent limitations established by 40 CFR 423) dual fuel co-generation (i.e., steam generation using fossil fuel to augment a heat-capture generation system) 	<p>SE is the Activity Code (i.e., non-SIC and non-NAICS designation) for this Sector. It may apply to any facility / SIC Code / NAICS Code, in addition to these specifically related to steam electric generation:</p> <ul style="list-style-type: none"> SIC 4911 Electric Services (fossil fuel power generation, nuclear electric power generation & other electric power generation) NAICS 221112 Fossil Fuel Electric Power Generation NAICS 221113 Nuclear Electric Power Generation

Sector P. Land Transportation					
Sub-sector	SIC Codes		NAICS Codes		Notes
P1	4011	Railroads, Line-Haul Operating	482111	Line-Haul Railroads	
	4013	Railroad Switching and Terminal Establishments			
		(short line railroads)	482112	Short Line Railroads	
		(except short line railroads)	488210	Support Activities for Rail Transportation	
	4111	Local and Suburban Transit			
		(mixed mode)	485111	Mixed Mode Transit Systems	
		(commuter rail)	485112	Commuter Rail Systems	
		(bus and motor vehicle)	485113	Bus and Other Motor Vehicle Transit Systems	
		(except mixed mode, commuter rail, airport transportation service, and bus and motor vehicle)	485119	Other Urban Transit Systems	
		(airport transportation service)	485999	All Other Transit and Ground Passenger Transportation	
4119	Local Passenger Transportation, Not Elsewhere Classified				
		(limousine rental with driver and automobile rental with driver)	485320	Limousine Service	
		(employee transportation)	485410	School and Employee Bus Transportation	
		(special needs transportation)	485991	Special Needs Transportation	
		(hearse rental with driver and carpool and vanpool operation)	485999	All Other Transit and Ground Passenger Transportation	
		(sightseeing buses and cable and cog railways, except scenic)	487110	Scenic and Sightseeing Transportation, Land	
		(land ambulance)	621910	Ambulance Services	
	4121	Taxicabs	485310	Taxi Service	
	4221	Farm Product Warehousing and Storage			
	4222	Refrigerated Warehousing and Storage			
	4225	General Warehousing and Storage			
	4131	Intercity and Rural Bus Transportation	485210	Interurban and Rural Bus Transportation	
	4141	Local Bus Charter Service	485510	Charter Bus Industry	
	4142	Bus Charter Service, Except Local	485510	Charter Bus Industry	
	4151	School Buses	485410	School and Employee Bus Transportation	
	4173	Terminal and Service Facilities for Motor Vehicle Passenger Transportation	488490	Other Support Activities for Road Transportation	
	4212	Local Trucking Without Storage			
		(general freight)	484110	General Freight Trucking, Local	
		(household goods moving)	484210	Used Household and Office Goods Moving	

Sector P. Land Transportation					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(specialized freight)	484220	Specialized Freight (except Used Goods) Trucking, Local	
		(solid waste collection without disposal)	562111	Solid Waste Collection	
		(hazardous waste collection without disposal)	562112	Hazardous Waste Collection	
		(other waste collection without disposal)	562119	Other Waste Collection	
	4213	Trucking, Except Local			
		(general freight, truckload)	484121	General Freight Trucking, Long-Distance, Truckload	
		(general freight, less than truckload)	484122	General Freight Trucking, Long-Distance, Less Than Truckload	
		(household goods moving)	484210	Used Household and Office Goods Moving	
		(specialized freight)	484230	Specialized Freight (except Used Goods) Trucking, Long-Distance	
	4214	Local Trucking With Storage			
		(general freight)	484110	General Freight Trucking, Local	
		(household goods moving)	484210	Used Household and Office Goods Moving	
		(specialized freight)	484220	Specialized Freight (except Used Goods) Trucking, Local	
	4215	Courier Services, Except by Air (hub and spoke intercity delivery)	492110	Couriers	
		(local delivery)	492210	Local Messengers and local Delivery	
	4226	Special Warehousing and Storage, Not Elsewhere Classified (warehousing in foreign trade zones)	493110	General Warehousing and Storage	
		(fur storage)	493120	Refrigerated Warehousing and Storage	
		(except fur storage and warehousing in foreign trade zones)	493190	Other Warehousing and Storage	
	4231	Terminal and Joint Terminal Maintenance Facilities for Motor Freight Transportation	488490	Other Support Activities for Road Transportation	
	4311	United States Postal Service	491110	Postal Service	
	5171	Petroleum Bulk Stations and Terminals			
		(except petroleum sold via retail method)	424710	Petroleum Bulk Stations and Terminals	
(heating oil sold to final consumer)		454311	Heating Oil Dealers		
	(LP gas sold to final consumer)	454312	Liquefied Petroleum Gas (Bottled Gas) Dealers		

Sector Q. Water Transportation					
Sub-sector	SIC Codes		NAICS Codes		Notes
Q1	4412	Deep Sea Foreign Transportation of Freight	483111	Deep Sea Freight Transportation	
	4424	Deep Sea Domestic Transportation of Freight	483113	Coastal and Great Lakes Freight Transportation	
	4432	Freight Transportation on the Great Lakes - St. Lawrence Seaway	483113	Coastal and Great Lakes Freight Transportation	
	4449	Water Transportation of Freight, Not Elsewhere Classified	483211	Inland Water Freight Transportation	
	4481	Deep Sea Transportation of Passengers, Except by Ferry (deep sea activities)	483112	Deep Sea Passenger Transportation	
		(coastal activities)	483114	Coastal and Great Lakes Passenger Transportation	
	4482	Ferries (coastal and Great Lakes)	483114	Coastal and Great Lakes Passenger Transportation	
		(inland)	483212	Inland Water Passenger Transportation	
	4489	Water Transportation of Passengers, Not Elsewhere Classified (water taxis)	483212	Inland Water Passenger Transportation	
		(airboats, excursion boats, and sightseeing boats)	487210	Scenic and Sightseeing Transportation, Water	
	4491	Marine Cargo Handling (dock and pier operations)	488310	Port and Harbor Operations	
		(all but dock and pier operations)	488320	Marine Cargo Handling	
	4492	Towing and Tugboat Services	488330	Navigational Services to Shipping	
	4493	Marinas	713930	Marinas	
	4499	Water Transportation Services, Not Elsewhere Classified (lighterage)	483211	Inland Water Freight Transportation	
		(lighthouse and canal operations)	488310	Port and Harbor Operations	
		(piloting vessels in and out of harbors and marine salvage)	488330	Navigational Services to Shipping	
		(all but lighthouse operations, piloting vessels in and out of harbors, boat and ship rental, marine salvage, lighterage, marine surveyor services, and canal operations)	488390	Other Support Activities for Water Transportation	
		(boat and ship rental, commercial)	532411	Commercial Air, Rail, and Water Transportation Equipment Rental and Leasing	

Sector R. Ship and Boat Building and Repair Yards					
Sub-sector	SIC Codes		NAICS Codes		Notes
R1	3731	Ship Building and Repairing (except repairs in floating drydocks)	336611	Ship Building and Repairing	
		(repair services provided by floating drydocks)	488390	Other Support Activities for Water Transportation (includes ship scaling facilities)	
	3732	Boat Building and Repairing (boat building)	336612	Boat Building	
		(pleasure boat repair and maintenance services without retailing new boats)	811490	Other Personal and Household Goods Repair and Maintenance	
		(ship scaling)	488390	Other Support Activities for Water Transportation (drydocks, floating [i.e., routine repair and maintenance of ships]; other support activities for water transportation; ship dismantling at floating drydock; ship scaling services not done at a shipyard)	
		(motorboat [i.e., inboard and outboard] repair and maintenance services; outboard motor repair shops)	811490	Other Personal and Household Goods Repair and Maintenance	

Sector S. Air Transportation Facilities					
Sub-sector	SIC Codes		NAICS Codes		Notes
S1	4512	Air Transportation, Scheduled			
		(passenger)	481111	Scheduled Passenger Air Transportation	
		(freight)	481112	Scheduled Freight Air Transportation	
	4513	Air Courier Services	492110	Couriers	
	4522	Air Transportation, Nonscheduled			
		(passenger)	481211	Nonscheduled Chartered Passenger Air Transportation	
		(freight)	481212	Nonscheduled Chartered Freight Air Transportation	

Sector S. Air Transportation Facilities					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(using general purpose aircraft for a variety of passenger, freight, courier, and other uses)	481219	Other Nonscheduled Air Transportation	
		(sightseeing planes)	487990	Scenic and Sightseeing Transportation, Other	
		(air ambulance)	621910	Ambulance Services	
	4581	Airports, Flying Fields, and Airport Terminal Services (air freight handling at airports, hangar operations, airport terminal services, aircraft storage, airports, and flying fields)	488119	Other Airport Operations	
		(aircraft servicing and repairing)	488190	Other Support Activities for Air Transportation	

Sector T. Treatment Works			
Sub-sector	Activity Code	Narrative Description	Notes
T1	TW	<ul style="list-style-type: none"> treatment works with a design flow of 1.0 MGD or more treating domestic sewage or any other sewage sludge; wastewater treatment devices or system used by the treatment works for the storage, treatment, recycling and reclamation of municipal or domestic sewage; land located within the confines of the treatment works that is dedicated to the disposal of sewage sludge; treatment works required to have an approved pretreatment program under 40 CFR Part 403 	<p>TW is the Activity Code (i.e., non-SIC and non-NAICS designation) for this Sector. It may apply to any facility / SIC Code / NAICS Code, in addition to these specifically related to treatment works:</p> <ul style="list-style-type: none"> SIC 4952 Sewerage Systems NAICS 221320 Sewage Treatment Facilities

Sector U. Food and Kindred Products				
Sub-sector	SIC Codes		NAICS Codes	
U3	2011	Meat Packing Plants	311611	Animal (except Poultry) Slaughtering
	2013	Sausages and Other Prepared Meat Products (except lard made from purchased materials)	311612	Meat Processed from Carcasses
		(lard made from purchased materials)	311613	Rendering and Meat Byproduct Processing
	2015	Poultry Slaughtering and Processing (poultry slaughtering and processing)	311615	Poultry Processing
		(egg processing)	311999	All Other Miscellaneous Food Manufacturing
	2021	Creamery Butter	311512	Creamery Butter Manufacturing
	2022	Natural, Processed, and Imitation Cheese	311513	Cheese Manufacturing
	2023	Dry, Condensed and Evaporated Dairy Products (liquid non-dairy creamer)	311511	Fluid Milk Manufacturing
		(except liquid non-dairy creamer)	311514	Dry, Condensed, and Evaporated Dairy Product Manufacturing
	2024	Ice Cream and Frozen Deserts	311520	Ice Cream and Frozen Desert Manufacturing
	2026	Fluid Milk (except ultra-high temperature)	311511	Fluid Milk Manufacturing
		(ultra-high temperature)	311514	Dry, Condensed, and Evaporated Dairy Product Manufacturing
	2032	Canned Specialties (except canned puddings)	311422	Specialty Canning
		(canned puddings)	311999	All Other Miscellaneous Food Manufacturing
	2033	Canned Fruits, Vegetables, Preserves, Jams, and Jellies	311421	Fruit and Vegetable Canning
	2034	Dried and Dehydrated Fruits, Vegetables and Soup Mixes (vegetable flour)	311211	Flour Milling
		(except vegetable flour and soup mixes made from purchased dried and dehydrated ingredients)	311423	Dried and Dehydrated Food Manufacturing
		(soup mixes made from purchased dehydrated ingredients)	311999	All Other Miscellaneous Food Manufacturing
	2035	Pickled Fruits and Vegetables, Vegetable Sauces and Seasonings, and Salad Dressings (pickled fruits and vegetables)	311421	Fruit and Vegetable Canning
		(sauces and salad dressings)	311941	Mayonnaise, Dressing, and Other Prepared Sauce Manufacturing

Sector U. Food and Kindred Products					
Sub-sector	SIC Codes		NAICS Codes		Notes
	2037	Frozen Fruits, Fruit Juices, and Vegetables	311411	Frozen Fruit, Juice, and Vegetable Manufacturing	
	2038	Frozen Specialties, Not Elsewhere Classified	311412	Frozen Specialty Food Manufacturing	
U1	2041	Flour and Other Grain Mill Products	311211	Flour Milling	
	2043	Cereal Breakfast Foods (cereal breakfast foods and related preparations except grain based coffee substitutes)	311230	Breakfast Cereal Manufacturing	
		(grain based coffee substitutes)	311920	Coffee and Tea Manufacturing	
	2044	Rice Milling	311212	Rice Milling	
	2045	Prepared Flour Mixes and Doughs	311822	Flour Mixes and Dough Manufacturing from Purchased Flour	
	2046	Wet Corn Milling (except refining purchased corn oil)	311221	Wet Corn Milling	
		(refining purchased corn oil)	311225	Fats and Oils Refining and Blending	
	2047	Dog and Cat Food	311111	Dog and Cat Food Manufacturing	
	2048	Prepared Feeds and Feed Ingredients for Animals and Fowls, Except Dogs and Cats (except slaughtering animals for pet food)	311119	Other Animal Food Manufacturing	
		(slaughtering animals for pet food)	311611	Animal (except Poultry) Slaughtering	
U3	2051	Bread and Other Bakery Products, Except Cookies and Crackers	311812	Commercial Bakeries	
	2052	Cookies and Crackers (unleavened bread and soft pretzels)	311812	Commercial Bakeries	
		(except unleavened bread and pretzels)	311821	Cookie and Cracker Manufacturing	
		(hard pretzels and snack pretzels, except soft)	311919	Other Snack Food Manufacturing (pretzels, except soft)	
	2053	Frozen Bakery Products, Except Bread	311813	Frozen Cakes, Pies, and Other Pastries Manufacturing	
	2061	Cane Sugar, Except Refining	311311	Sugarcane Mills	
	2062	Cane Sugar Refining	311312	Cane Sugar Refining	
	2063	Beet Sugar	311313	Beet Sugar Manufacturing	
	2064	Candy and Other Confectionery Products (chocolate confectionery)	311330	Confectionery Manufacturing from Purchased Chocolate	
		(nonchocolate confectionery)	311340	Nonchocolate Confectionery Manufacturing	

Sector U. Food and Kindred Products					
Sub-sector	SIC Codes		NAICS Codes		Notes
	2066	Chocolate and Cocoa Products	311320	Chocolate and Confectionery Manufacturing from Cacao Beans	
		(except chocolate products, made from purchased chocolate)			
		(chocolate products made from purchased chocolate)	311330	Confectionery Manufacturing from Purchased Chocolate	
	2067	Chewing Gum	311340	Nonchocolate Confectionery Manufacturing	
	2068	Salted and Roasted Nuts and Seeds	311911	Roasted Nuts and Peanut Butter Manufacturing	
U2	2074	Cottonseed Oil Mills	311223	Other Oilseed Processing	
		(cottonseed processing)			
	2075	Soybean Oil Mills	311222	Soybean Processing	
		(soybean processing, except edible soybean oil)			
		(processing purchased soybean oil)	311225	Fats and Oils Refining and Blending	
	2076	Vegetable Oil Mills, Except Corn, Cottonseed, and Soybean	311223	Other Oilseed Processing	
		(oilseed processing)			
	2077	Animal and Marine Fats and Oils	311613	Rendering and Meat Byproduct Processing	
		(animal fats and oils)			
		(canned marine fats and oils)	311711	Seafood Canning	
	2079	Shortening, Table Oils, Margarine, and Other Edible Fats and Oils, Not Elsewhere Classified	311222	Soybean Processing	
		(processing soybean oil into edible cooking oils from soybeans crushed in the same establishment)			
		(processing vegetable oils, except soybean, into edible cooking oils from oilseeds and vegetables crushed in the same establishment)	311223	Other Oilseed Processing	
		(except processing vegetable and soybean oils into edible oils from oilseeds and vegetables crushed in the same establishment)	311225	Fats and Oils Refining and Blending	
U3	2082	Malt Beverages	311942	Spice and Extract Manufacturing	
		(malt extract)			
	2083	Malt	312120	Breweries	
			312123	Malt Manufacturing	

Sector U. Food and Kindred Products					
Sub-sector	SIC Codes		NAICS Codes		Notes
	2084	Wines, Brandy and Brandy Spirits	312130	Wineries	
	2085	Distilled and Blended Liquors			
		(apple jack)	312130	Wineries	
		(except apple jack)	312140	Distilleries	
	2086	Bottled and Canned Soft Drinks and Carbonated Water			
		(except bottled water)	312111	Soft Drink Manufacturing	
		(bottled water)	312112	Bottled Water Manufacturing	
	2087	Flavoring Extracts and Flavoring Syrups, Not Elsewhere Classified			
		(coffee flavoring and syrups)	311920	Coffee and Tea Manufacturing	
		(flavoring syrups and concentrates except coffee)	311930	Flavoring Syrup and Concentrate Manufacturing	
		(flavoring extracts and natural food colorings)	311942	Spice and Extract Manufacturing	
		(powered drink mix)	311999	All Other Miscellaneous Food Manufacturing	
	2091	Canned and Cured Fish and Seafoods	311711	Seafood Canning	
	2092	Prepared Fresh or Frozen Fish and Seafoods	311712	Fresh and Frozen Seafood Processing	
	2095	Roasted Coffee	311920	Coffee and Tea Manufacturing	
	2096	Potato Chips, Corn Chips, and Similar Snacks	311919	Other Snack Food Manufacturing	
	2097	Maufactured Ice	312113	Ice manufacturing	
	2098	Macaroni, Spaghetti, Vermicelli, and Noodles	311823	Dry Pasta Manufacturing	
	2099	Food Preparations, Not Elsewhere Classified			
		(rice, uncooked and packaged with other ingredients made in rice mills)	311212	Rice Milling	
(marshmallow creme)		311340	Nonchocolate Confectionery Manufacturing		
		(bouillon and potatoes dried and packaged with other ingredients produced in dehydrating plants)	311423	Dried and Dehydrated Food Manufacturing	
		(dry pasta packaged with other ingredients made in dry pasta plants)	311823	Dry Pasta Manufacturing	
		(tortillas)	311830	Tortilla Manufacturing	
		(peanut butter)	311911	Roasted Nuts and Peanut Butter Manufacturing	
		(tea)	311920	Coffee and Tea Manufacturing	
		(vinegar, prepared dip)	311941	Mayonnaise, Dressing, and Other Prepared Sauce Manufacturing	

Sector U. Food and Kindred Products					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(spices, dry dip mix, dry salad dressing mix, and seasoning mix)	311942	Spice and Extract Manufacturing	
		(perishable prepared food)	311991	Perishable Prepared Food Manufacturing	
		(except bouillon, marshmallow creme, spices, peanut butter, perishable prepared foods, tortillas, tea and tea extracts, dry dip mix, prepared dips, dry salad dressing mix, seasoning mix, dried potatoes, pasta, and rice mixed with other ingredients in mills or dehydrating plants, reducing maple sap to maple syrup, wool grease, and vinegar)	311999	All Other Miscellaneous Food Manufacturing	
	2111	Cigarettes	312221	Cigarette Manufacturing	
	2121	Cigars	312229	Other Tobacco Product Manufacturing	
	2131	Chewing and Smoking Tobacco and Snuff	312229	Other Tobacco Product Manufacturing	
	2141	Tobacco Stemming and Redrying (stemming and redrying tobacco)	312210	Tobacco Stemming and Redrying	
		(reconstituted tobacco)	312229	Other Tobacco Product Manufacturing	

Sector V. Textile Mills, Apparel, and Other Fabric Product Manufacturing					
Sub-sector	SIC Codes		NAICS Codes		Notes
V1	2211	Broadwoven Fabric Mills, Cotton	313210	Broadwoven Fabric Mills	
	2221	Broadwoven Fabric Mills, Manmade Fiber and Silk	313210	Broadwoven Fabric Mills	
	2231	Broadwoven Fabric Mills, Wool (Including Dyeing and Finishing) (except finishing wool fabric without weaving wool fabric)	313210	Broadwoven Fabric Mills 2231	
		(wool broadwoven fabric finishing without weaving fabric)	313311	Broadwoven Fabric Finishing Mills	
		(wool fabric, except broadwoven, finishing without weaving fabric)	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills	
	2241	Narrow Fabric and Other Smallwares Mills: Cotton, Wool, Silk and Manmade Fiber	313221	Narrow Fabric Mills	
	2251	Women's Full-Length and Knee-Length Hosiery, Except Socks	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills	

Sector V. Textile Mills, Apparel, and Other Fabric Product Manufacturing						
Sub-sector	SIC Codes		NAICS Codes		Notes	
		(dyeing and finishing sheer hosiery without knitting sheer hosiery)				
		(except dyeing and finishing sheer hosiery without knitting sheer hosiery)	315111	Sheer Hosiery Mills		
	2252	Hosiery, Not Elsewhere Classified (dyeing and finishing hosiery , except sheer, without knitting hosiery)	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills		
		(girls' full length and knee length sheer hosiery)	315111	Sheer Hosiery Mills		
		(except girls' full-length and knee-length sheer hosiery and dyeing and finishing hosiery without knitting hosiery)	315119	Other Hosiery and Sock Mills		
		2253	Knit Outerwear Mills (dyeing and finishing knit outerwear without knitting outerwear)	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills	
	(except bath and lounging robes and dying and finish without knitting garments)		315191	Outerwear Knitting Mills		
	(knitting bath or lounging robes)		315192	Underwear and Nightwear Knitting Mills		
	2254	Knit Underwear and Nightwear Mills (dyeing and finishing underwear and nightwear without knitting garments)	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills		
		(except dyeing and finishing underwear and nightwear without knitting garments)	315192	Underwear and Nightwear Knitting Mills		
	2257	Weft Knit Fabric Mills (except finishing without knitting weft fabric)	313241	Weft Knit Fabric Mills		
		(finishing weft fabric without knitting weft fabric)	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills		
	2258	Weft Knit Fabric Mills (except finishing without knitting weft fabric)	313241	Weft Knit Fabric Mills		
		(finishing weft fabric without knitting weft fabric)	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills		
		2259	Knitting Mills, Not Elsewhere Classified (knitting weft fabric and fabricating textile products, such as bedspreads, curtains, or towels)	313241	Weft Knit Fabric Mills	

Sector V. Textile Mills, Apparel, and Other Fabric Product Manufacturing					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(knitting lace or warp fabric and fabricating textile products, such as bedspreads, curtains, or towels)	313249	Other Knit Fabric and Lace Mills	
		(dyeing and finishing knit gloves and mittens without knitting gloves or mittens)	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills	
		(knitting gloves and mittens)	315191	Outerwear Knitting Mills	
		(knitting girdles and allied foundation garments)	315192	Underwear and Nightwear Knitting Mills	
	2261	Finishers of Broadwoven Fabrics of Cotton	313311	Broadwoven Fabric Finishing Mills	
	2262	Finishers of Broadwoven Fabrics of Manmade Fibers and Silk	313311	Broadwoven Fabric Finishing Mills	
	2269	Finishers of Textiles, Not Elsewhere Classified			
		(linen fabric finishing)	313311	Broadwoven Fabric Finishing Mills	
		(except linen fabric finishing)	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills	
	2273	Carpets and Rugs	314110	Carpet and Rug Mills	
	2281	Yarn Spinning Mills	313111	Yarn Spinning Mills	
	2282	Yarn Texturizing, Throwing, Twisting and Spinning Mills	313112	Yarn Texturizing, Throwing, Twisting Mills	
	2284	Thread Mills			
		(except finishing thread without manufacturing thread)	313113	Thread Mills	
		(finishing thread without manufacturing thread)	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills	
	2295	Coated Fabrics, Not Rubberized	313320	Fabric Coating Mills	
	2296	Tire Cord and Fabrics	314992	Tire Cord and Tire fabric Mills	
	2297	Nonwoven Fabrics	313230	Nonwoven Fabric Mills	
	2298	Cordage and Twine			
		(hemp rope made in spinning mills)	313111	Yarn Spinning Mills	
	(except hemp rope made in spinning mills)	314991	Rope, Cordage, and Twine Mills		
2299	Textile Goods, Not Elsewhere Classified				
		(hemp bags made in spinning mills, & spinning yarn of flax, hemp, jute, and ramie)	313111	Yarn Spinning Mills	
		(manufacturing thread of hemp, linen, and ramie)	313113	Thread Mills	

Sector V. Textile Mills, Apparel, and Other Fabric Product Manufacturing					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(broadwoven fabrics of jute, linen, hemp, and ramie and hand woven fabrics)	313210	Broadwoven Fabric Mills	
		(narrow woven fabric of jute, linen, hemp, and ramie)	313221	Narrow Fabric Mills	
		(nonwoven felt)	313230	Nonwoven Fabric Mills	
		(finishing hard fiber thread and yarn without manufacturing thread or yarn)	313312	Textile and Fabric Finishing (except Broadwoven Fabric) Mills	
		(manufacturing other textile products)	314999	All Other Miscellaneous Textile Product Mills	
	2311	Men's and Boys' Suits, Coats, and Overcoats			
		(contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors	
		(except contractors)	315222	Men's and Boys' Cut and Sew Suit, Coat and Overcoat Manufacturing	
	2321	Men's and Boys' Shirts, Except Work Shirts			
		(contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors	
		(except contractors)	315223	Men's and Boys' Cut and Sew Shirt (except Work Shirt) Manufacturing	
	2322	Men's and Boys' Underwear and Nightwear			
		(contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors	
		(except contractors)	315221	Men's and Boys' Cut and Sew Underwear and Nightwear Manufacturing	
	2323	Men's and Boys' Neckwear			
		(contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors	
		(except contractors)	315993	Men's and Boys' Neckwear Manufacturing	
	2325	Men's and Boys' Separate Trousers and Slacks			
		(contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors	
		(except contractors)	315224	Men's and Boys' Cut and Sew Trouser, Slack and Jean Manufacturing	
	2326	Men's and Boys' Work Clothing			
		(contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors	
		(except contractors)	315225	Men's and Boys' Cut and Sew Work Clothing Manufacturing	

Sector V. Textile Mills, Apparel, and Other Fabric Product Manufacturing				
Sub-sector	SIC Codes		NAICS Codes	
	2329	Men's and Boys' Clothing, Not Elsewhere Classified (contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
		(except team athletic uniforms and contractors)	315228	Men's and Boys' Cut and Sew Other Outerwear Manufacturing
		(team athletic uniforms except contractors)	315299	All Other Cut and Sew Apparel Manufacturing
	2331	Women's, Misses', and Juniors' Blouses and Shirts (contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
		(except contractors)	315232	Women's and Girls' Cut and Sew Blouse and Shirt Manufacturing
	2335	Women's, Misses', and Juniors' Dresses (contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
		(except contractors)	315233	Women's and Girls' Cut and Sew Dress Manufacturing
	2337	Women's, Misses', and Juniors' Suits, Skirts, and Coats (contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
		(except contractors)	315234	Women's and Girls' Cut and Sew Suit, Coat, Tailored Jacket, and Skirt Manufacturing
	2339	Women's, Misses', and Juniors' Outerwear, Not Elsewhere Classified (contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors
		(except team athletic uniforms, scarves, and contractors)	315239	Women's and Girls' Cut and Sew Other Outerwear Manufacturing
		(team athletic uniforms except contractors)	315299	All Other Cut and Sew Apparel Manufacturing
		(scarves except contractors)	315999	Other Apparel Accessories and Other Apparel Manufacturing
	2341	Women's, Misses', Children's, and Infants' Underwear and Nightwear (boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors
		(women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors

Sector V. Textile Mills, Apparel, and Other Fabric Product Manufacturing					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(boys' except contractors)	315221	Men's and Boys' Cut and Sew Underwear and Nightwear Manufacturing	
		(women and girls' except contractors)	315231	Women's and Girls' Cut and Sew Lingerie, Loungewear, and Nightwear Manufacturing	
		(infants' except contractors)	315291	Infants' Cut and Sew Apparel Manufacturing	
	2342	Brassieres, Girdles, and Allied Garments			
		(contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors	
		(except contractors)	315231	Women's and Girls' Cut and Sew Lingerie, Loungewear, and Nightwear Manufacturing	
	2353	Hats, Caps, and Millinery			
		(men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors	
		(women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors	
		(except contractors)	315991	Hat, Cap, and Millinery Manufacturing	
	2361	Girls', Children's, and Infants' Dresses, Blouses, and Shirts			
		(boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors	
		(girls' and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors	
		(boys' shirts except contractors)	315223	Men's and Boys' Cut and Sew Shirt (except Work Shirt) Manufacturing	
		(girls' blouses and shirts except contractors)	315232	Women's and Girls' Cut and Sew Blouse and Shirt Manufacturing	
		(girls' dresses except contractors)	315233	Women's and Girls' Cut and Sew Dress Manufacturing	
		(infants' except contractors)	315291	Infants' Cut and Sew Apparel Manufacturing	
	2369	Girls', Children's, and Infants' Outerwear, Not Elsewhere Classified			
		(boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors	
		(girls' and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors	
		(boys' robes except contractors)	315221	Men's and Boys' Cut and Sew Underwear and Nightwear Manufacturing	
		(boys' suits and coats except contractors)	315222	Men's and Boys' Cut and Sew Suit, Coat, and Overcoat Manufacturing	
		(boys' trousers, slacks, and jeans except contractors)	315224	Men's and Boys' Cut and Sew Trouser, Slack and Jean Manufacturing	

Sector V. Textile Mills, Apparel, and Other Fabric Product Manufacturing					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(boys' other outerwear except contractors)	315228	Men's and Boys' Cut and Sew Other Outerwear Manufacturing	
		(girls' robes except contractors)	315231	Women's and Girls' Cut and Sew Lingerie, Loungewear, and Nightwear Manufacturing	
		(girls' suits, coats, jackets, and skirts except contractors)	315234	Women's and Girls' Cut and Sew Suit, Coat, Tailored Jacket, and Skirt Manufacturing	
		(girls' other outerwear except contractors)	315239	Women's and Girls' Cut and Sew Other Outerwear Manufacturing	
		(infants' except contractors)	315291	Infants' Cut and Sew Apparel Manufacturing	
	2371	Fur Goods			
		(men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors	
		(women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors	
		(except contractors)	315292	Fur and Leather Apparel Manufacturing	
	2381	Dress and Work Gloves, Except Knit and All-Leather			
		(men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors	
		(women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors	
		(except contractors)	315992	Glove and Mitten Manufacturing	
	2384	Robes and Dressing Gowns			
		(men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors	
		(women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors	
		(men's except contractors)	315221	Men's and Boys' Cut and Sew Underwear and Nightwear Manufacturing	
		(women's except contractors)	315231	Women's and Girls' Cut and Sew Lingerie, Loungewear, and Nightwear Manufacturing	
	2385	Waterproof Outerwear			
		(men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors	
		(women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors	
		(men's and boys' water resistant or water repellent tailored overcoats, except made from rubberized fabric, plastics, etc. and contractors)	315222	Men's and Boys' Cut and Sew Suit, Coat, and Overcoat Manufacturing	

Sector V. Textile Mills, Apparel, and Other Fabric Product Manufacturing					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(men's and boys' water resistant or water repellent nontailored outerwear, except made from rubberized fabric, plastics, etc. and contractors)	315228	Men's and Boys' Cut and Sew Other Outerwear Manufacturing	
		(women's and girls' water resistant or water repellent tailored coats, except made from rubberized fabric, plastics, etc. and contractors)	315234	Women's and Girls' Cut and Sew Suit, Coat, Tailored Jacket, and Skirt Manufacturing"	
		(other women's and girls' water resistant or water repellent nontailored outerwear, except made from rubberized fabric, plastics, etc. and contractors)	315239	Women's and Girls' Cut and Sew Other Outerwear Manufacturing	
		(infants' waterproof outerwear made from rubberized fabric, plastics, etc. except contractors)	315291	Infants' Cut and Sew Apparel Manufacturing	
		(men's, boys', women's, and girls' waterproof outerwear made from rubberized fabric, plastics, etc. except contractors)	315299	All Other Cut and Sew Apparel Manufacturing	
		(accessories, such as aprons, bibs, and other miscellaneous waterproof items, made from rubberized fabric, plastics, etc. except contractors)	315999	Other Apparel Accessories and Other Apparel Manufacturing	
	2386	Leather and Sheep-Lined Clothing			
		(men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors	
		(women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors	
		(except contractors)	315292	Fur and Leather Apparel Manufacturing	
	2387	Apparel Belts			
		(men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors	
		(women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors	
		(except contractors)	315999	Other Apparel Accessories and Other Apparel Manufacturing	
	2389	Apparel and Accessories, Not Elsewhere Classified			
		(men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors	
		(women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors	

Sector V. Textile Mills, Apparel, and Other Fabric Product Manufacturing					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(garters and garter belts except contractors)	315231	Women's and Girls' Cut and Sew Lingerie, Loungewear, and Nightwear Manufacturing	
		(apparel, such as academic gowns, clerical outerwear, and band uniforms, except contractors)	315299	All Other Cut and Sew Apparel Manufacturing	
		(accessories such as, handkerchiefs, arm bands, cummerbunds, suspenders, etc., except contractors)	315999	Other Apparel Accessories and Other Apparel Manufacturing	
	2391	Curtains and Draperies	314121	Curtain and Drapery Mills	
	2392	Housefurnishings, Except Curtains and Draperies			
		(except mops, dust rags, and bags)	314129	Other Household Textile Product Mills	
		(blanket, laundry, and wardrobe bags)	314911	Textile Bag Mills	
		(dust rags)	314999	All Other Miscellaneous Textile Product Mills	
		(floor and dust mops)	339994	Broom, Brush, and Mop Manufacturing	
	2393	Textile Bags	314911	Textile Bag Mills	
	2394	Canvas and Related Products	314912	Canvas and Related Product Mills	
	2395	Pleating, Decorative and Novelty Stitching, and Tucking for the Trade			
		(except apparel contractors)	314999	All Other Miscellaneous Textile Product Mills	
		(men's and boy's apparel contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors	
		(women's, girls', and infants' apparel contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors	
	2396	Automotive Trimmings, Apparel Findings, and Related Products			
		(textile products except automotive and apparel trimmings and findings, printing or embossing on apparel, and contractors)	314999	All Other Miscellaneous Textile Product Mills	
		(men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors	
		(women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors	
		(apparel findings and trimmings, except contractors)	315999	Other Apparel Accessories and Other Apparel Manufacturing	
		(printing and embossing on fabric articles)	323113	Commercial Screen Printing	
		(textile motor vehicle trimming except contractors)	336360	Motor Vehicle Seating and Interior Trim Manufacturing	
	2397	Schiffli Machine Embroideries	313222	Schiffli Machine Embroidery	

Sector V. Textile Mills, Apparel, and Other Fabric Product Manufacturing					
Sub-sector	SIC Codes		NAICS Codes		Notes
	2399	Fabricated Textile Products, Not Elsewhere Classified (except apparel and accessories, automotive seat belts, seat and tire covers, and contractors)	314999	All Other Miscellaneous Textile Product Mills	
		(men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors	
		(women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors	
		(apparel and apparel accessories, except contractors)	315999	Other Apparel Accessories and Other Apparel Manufacturing	
		(seat belts, and seat and tire covers)	336360	Motor Vehicle Seating and Interior Trim Manufacturing	
	3131	Boot and Shoe Cut Stock and Findings (except wood heels and metal buckles)	316999	All Other Leather Good Manufacturing	
		(heels, boot and shoe, finished wood, manufacturing)	321999	All Other Miscellaneous Wood Product Manufacturing	<p>A facility with the primary activity of NAICS 321999 "heels, boot and shoe, finished wood, manufacturing" can be regulated under Sector A or Sector V. Sector A requires additional technology-based effluent limits comprising good housekeeping; additional SWPPP requirements; additional inspection requirements; and benchmark monitoring for COD and TSS. Sector V requires additional technology-based effluent limits comprised of good housekeeping measures and employee training; additional SWPPP requirements; and additional inspection requirements.</p> <p>Regulatory burden would likely be greater under Sector A.</p>

Sector V. Textile Mills, Apparel, and Other Fabric Product Manufacturing					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(metal buckles)	339993	Fastener, Button, Needle, and Pin Manufacturing	<p>Any facility whose primary activity is manufacturing metal buckles (SIC 3131 / NAICS 339993) should be regulated under Sector Y, but may continue to be regulated under Sector V, or alternatively, under Sector AD. Sector Y does not apply additional sector-specific requirements to metal buckle manufacturers. Sector V applies additional technology-based limitations comprised of good housekeeping measures for material storage areas and employee training. Under Sector AD EPA could establish additional facility-specific monitoring and reporting requirements.</p> <p>Regulatory burden would likely be greater under Sector V.</p>
	3142	House Slippers	316212	House Slipper Manufacturing	
	3143	Men's Footwear, Except Athletic	316213	Men's Footwear (except Athletic) Manufacturing	
	3144	Women's Footwear, Except Athletic	316214	Women's Footwear (except Athletic) Manufacturing	
	3149	Footwear, Except Rubber, Not Elsewhere Classified	316219	Other Footwear Manufacturing	
	3151	Leather Gloves and Mittens			
		(men's and boys' contractors)	315211	Men's and Boys' Cut and Sew Apparel Contractors	
		(women's, girls', and infants' contractors)	315212	Women's, Girls', and Infants' Cut and Sew Apparel Contractors	
		(except contractors)	315992	Glove and Mitten Manufacturing	
	3161	Luggage	316991	Luggage Manufacturing	
	3171	Women's Handbags and Purses	316992	Women's Handbag and Purse Manufacturing	
3172	Personal Leather Goods, Except Women's Handbags and Purses (except nonprecious metal personal goods, such as card cases, cigar cases, and comb cases)	316993	Personal Leather Good (except Women's Handbag and Purse) Manufacturing		

Sector V. Textile Mills, Apparel, and Other Fabric Product Manufacturing					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(nonprecious metal personal goods, such as card cases, cigar cases, and comb cases)	339914	Costume Jewelry and Novelty Manufacturing	Any facility whose primary activity is manufacturing nonprecious metal personal goods, such as card cases, cigar cases, and comb cases (SIC 3172 / NAICS 339914) should be regulated under Sector Y, but may continue to be regulated under Sector V, or alternatively, under Sector AD. Sector Y does not apply additional sector-specific requirements to metal buckle manufacturers. Sector V applies additional technology-based limitations comprised of good
					housekeeping measures for material storage areas and employee training. Under Sector AD EPA could establish additional facility-specific monitoring and reporting requirements. Regulatory burden would likely be greater under Sector V.
	3199	Leather Goods, Not Elsewhere Classified	316999	All Other Leather Good Manufacturing	

Sector W. Furniture and Fixtures					
Sub-sector	SIC Codes		NAICS Codes		Notes
W1	2434	Wood Kitchen Cabinets	337110	Wood Kitchen Cabinet and Countertop Manufacturing	
	2511	Wood Household Furniture, Except Upholstered			
		(except wood box spring frames)	337122	Nonupholstered Wood Household Furniture Manufacturing	
		(wood box spring frames (parts))	337215	Showcase, Partition, Shelving, and Locker Manufacturing	
	2512	Wood Household Furniture, Upholstered	337121	Upholstered Household Furniture Manufacturing	
	2514	Metal Household Furniture			
(upholstered)		337121	Upholstered Household Furniture Manufacturing		
	(except upholstered metal furniture and metal box spring frames)	337124	Metal Household Furniture Manufacturing		

Sector W. Furniture and Fixtures					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(metal box spring frames)	337215	Showcase, Partition, Shelving, and Locker Manufacturing	
	2515	Mattresses, Foundations, and Convertible Beds			
		(convertible beds)	337121	Upholstered Household Furniture Manufacturing	
		(mattresses and foundations)	337910	Mattress Manufacturing	
	2517	Wood, Television, Radio, Phonograph, and Sewing Machine Cabinets	337129	Wood, Television, Radio, Phonograph, and Sewing Machine Cabinet Manufacturing	
	2519	Household Furniture, Not Elsewhere Classified	337125	Household Furniture (except Wood and Metal) Manufacturing	
	2521	Wood Office Furniture	337211	Wood Office Furniture Manufacturing	
	2522	Office Furniture, Except Wood	337214	Office Furniture (Except Wood) Manufacturing	
	2531	Public Building and Related Furniture			
		(seats for motor vehicles)	336360	Motor Vehicle Seating and Interior Trim Manufacturing	
		(except motor vehicle seats and blackboards)	337127	Institutional Furniture Manufacturing	
		(blackboards)	339942	Lead Pencil and Art Good Manufacturing	
	2541	Wood Office and Store Fixtures, Partitions, Shelving, and Lockers			
		(counter tops)	337110	Wood Kitchen Cabinet and Countertop Manufacturing	
		(wood lunchroom tables and chairs)	337127	Institutional Furniture Manufacturing	
		(custom architectural millwork)	337212	Custom Architectural Woodwork and Millwork Manufacturing	
		(except custom architectural millwork, counter tops, and lunchroom tables and chairs)	337215	Showcase, Partition, Shelving, and Locker Manufacturing	
	2542	Office and Store Fixtures, Partitions, Shelving, and Lockers, Except Wood (lunchroom tables and chairs)	337127	Institutional Furniture Manufacturing	
		(except lunchroom tables and chairs)	337215	Showcase, Partition, Shelving, and Locker Manufacturing	
	2591	Drapery Hardware and Window Blinds and Shades	337920	Blind and Shade Manufacturing	
	2599	Furniture and Fixtures, Not Elsewhere Classified			
		(except hospital beds)	337127	Institutional Furniture Manufacturing	
		(hospital beds)	339111	Laboratory Apparatus and Furniture Manufacturing	

Sector X. Printing and Publishing					
Sub-sector	SIC Codes		NAICS Codes		Notes
X1	2711	Newspapers: Publishing, or Publishing and Printing (except Internet newspaper publishing)	511110	Newspaper Publishers	
	2721	Periodicals: Publishing, or Publishing and Printing (except Internet periodical publishing)	511120	Periodical Publishers	
	2731	Books: Publishing, or Publishing and Printing (except Internet book publishing)			
		(except music books)	511130	Book Publishers	
		(music books)	512230	Music Publishers	
	2732	Book Printing	323117	Book Printing	
	2741	Miscellaneous Publishing (except Internet publishers)			
		(shopping news and advertising periodical publishing or publishing and printing except Internet)	511120	Periodical Publishers	
		(technical manuals and books publishing or publishing and printing, except Internet)	511130	Book Publishers	
		(directory publishers, except Internet publishers)	511140	Directory and Mailing List Publishers	
		(except database, advertising periodicals, shopping news, technical manuals and books, and sheet music publishing or publishing and printing)	511199	All Other Publishers	
		(sheet music publishing or publishing and printing)	512230	Music Publishers	
	2752	Commercial Printing, Lithographic (except quick printing)	323110	Commercial Lithographic Printing	
		(quick printing)	323114	Quick Printing	
	2754	Commercial Printing, Gravure	323111	Commercial Gravure Printing	
	2759	Commercial Printing, NEC (flexographic printing)	323112	Commercial Flexographic Printing	
		(screen printing)	323113	Commercial Screen Printing	
		(digital printing, except quick printing)	323115	Digital Printing	
		(other commercial printing except flexographic, screen, digital, and quick printing)	323119	Other Commercial Printing	
	2761	Manifold Business Forms			

Sector X. Printing and Publishing					
Sub-sector	SIC Codes		NAICS Codes		Notes
	2771	Greeting Cards (except Internet greeting card publishers)	323110	Commercial Lithographic Printing	
		(lithographic printing of greeting cards)			
		(gravure printing of greeting cards)			
		(flexographic printing of greeting cards)			
		(screen printing of greeting cards)			
		(other printing of greeting cards)			
		(publishing greeting cards)			
	2782	Blankbooks, Looseleaf Binders and Devices			
		(checkbooks)			
		(except checkbooks)			
	2789	Bookbinding and Related Work	323121	Tradebinding and Related Work	
	2791	Typesetting	323122	Prepress Services	
	2796	Platemaking and Related Services	323122	Prepress Services	

Sector Y. Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries					
Sub-sector	SIC Codes		NAICS Codes		Notes
Y1	3011	Tires and Inner Tubes	326211	Tire Manufacturing (except Retreading)	
	3021	Rubber and Plastics Footwear	316211	Rubber and Plastics Footwear Manufacturing	
	3052	Rubber and Plastics Hose and Belting	326220	Rubber and Plastics Hoses and Belting Manufacturing	
	3053	Gaskets, Packing, and Sealing Devices	339991	Gaskets, Packing, and Sealing Device Manufacturing	
	3061	Molded, Extruded, and Lathe-Cut Mechanical Rubber Goods	326291	Rubber Product Manufacturing for Mechanical Use	
	3069	Fabricated Rubber Products, Not Elsewhere Classified			
		(rubberizing fabric or purchased textile products)	313320	Fabric Coating Mills	
		(bags made from rubberized fabric)	314911	Textile Bag Mills	
	(rubber cut and sew outerwear)	315299	All Other Cut and Sew Apparel Manufacturing		

Sector Y. Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(bibs, bathing caps, related rubber accessories)	315999	Other Apparel Accessories and Other Apparel Manufacturing	
		(rubber resilient floor coverings)	326192	Resilient Floor Covering Manufacturing	
		(except rubberized fabric and garments, gloves, life vests, wet suits, accessories, such as bibs and bathing caps, rubber toys, bags made from rubberized fabric, rubber diaper covers, and rubber resilient floor coverings)	326299	All Other Rubber Product Manufacturing	
		(rubber gloves, inflatable rubber life jackets)	339113	Surgical and Appliance and Supplies Manufacturing	
		(wet suits)	339920	Sporting and Athletic Goods Manufacturing	
		(rubber toys, except dolls)	339932	Game, Toy, and Children's Vehicle Manufacturing	
Y2	3081	Unsupported Plastics Film and Sheet	326113	Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing	
	3082	Unsupported Plastics Profile Shapes	326121	Unlaminated Plastics Profile Shape Manufacturing	
	3083	Laminated Plastics Plate, Sheet, and Profile Shapes	326130	Laminated Plastics Plate, Sheet (except Packaging), and Shape Manufacturing	
	3084	Plastics Pipe	326122	Plastics Pipe and Pipe Fitting Manufacturing	
	3085	Plastics Bottles	326160	Plastics Bottle Manufacturing	
	3086	Plastics Foam Products	326140	Polystyrene Foam Product Manufacturing	
		(polystyrene foam products)			
		(except polystyrene foam products)	326150	Urethane and Other Foam Product (except Polystyrene) Manufacturing	
	3087	Custom Compounding of Purchased Plastics Resins	325991	Custom Compounding of Purchased Resins	
	3088	Plastics Plumbing Fixtures	326191	Plastics Plumbing Fixture Manufacturing	
	3089	Plastics Products, Not Elsewhere Classified			
		(plastics sausage casings)	326121	Unlaminated Plastics Profile Shape Manufacturing	
		(pipe fittings)	326122	Plastics Pipe and Pipe Fitting Manufacturing	
(except plastics pipe fittings, inflatable plastics life jackets, plastics furniture parts, and plastics sausage casings)		326199	All Other Plastics Product Manufacturing		
	(finished plastic furniture parts)	337215	Showcase, Partition, Shelving, and Locker Manufacturing		

Sector Y. Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(inflatable plastic life jackets)	339113	Surgical Appliance and Supplies Manufacturing	
	3931	Musical Instruments	339992	Musical Instrument Manufacturing	
	3942	Dolls and Stuffed Toys	339931	Doll and Stuffed Toy Manufacturing	
	3944	Games, Toys, and Children's Vehicles, Except Dolls and Bicycles			Any facility whose primary activity is manufacturing metal tricycles (SIC 3944 / NAICS 336991) should be regulated under Sector AB, but may continue to be regulated under Sector Y, or alternatively, under Sector AD. Sector AB applies additional SWPPP requirements. Sector Y does not apply additional sector-specific requirements to metal tricycle manufacturers and under Sector AD EPA could establish additional facility-specific monitoring and reporting requirements. Regulatory burden would be greater under Sector AB.
		(metal tricycles)	336991	Motorcycle, Bicycle, and Parts Manufacturing	
		(except metal tricycles)	339932	Game, Toy, and Children's Vehicle Manufacturing	
	3949	Sporting and Athletic Goods, Not Elsewhere Classified	339920	Sporting and Athletic Goods Manufacturing	
	3951	Pens, Mechanical Pencils, and Parts	339941	Pens, Mechanical Pencil Manufacturing	
	3953	Marking Devices	339943	Marking Device Manufacturing	
	3955	Carbon Paper and Inked Ribbons	339944	Carbon Paper and Inked Ribbon Manufacturing	
	3961	Costume Jewelry and Costume Novelties, Except Precious Metal (except cuff links)	339914	Costume Jewelry and Novelty Manufacturing	
		(nonprecious cuff links)	339993	Fastener, Button, Needle, and Pin Manufacturing	
	3965	Fasteners, Buttons, Needles, and Pins	339993	Fastener, Button, Needle, and Pin Manufacturing	
	3991	Brooms and Brushes	339994	Broom, Brush, and Mop Manufacturing	

Sector Y. Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries					
Sub-sector	SIC Codes		NAICS Codes		Notes
	3993	Signs and Advertising Specialties	323113	Commercial Screen Printing	Any facility whose primary activity is screen printing purchased advertising specialties (SIC 3993 / NAICS 323113) should be regulated under Sector X, but may continue to be regulated under Sector Y, or alternatively, under Sector AD. Sector X applies additional technology-based effluent limits comprised of good housekeeping measures for material storage areas, and additional SWPPP requirements. Sector Y does not apply additional requirements to these facilities and under Sector AD EPA could establish additional facility-specific monitoring and reporting requirements. Regulatory burden would be greater under Sector X.
		(screen printing purchased advertising specialties ³⁴)			
		(signs)			
			339950	Sign Manufacturing	
	3995	Burial Caskets	339995	Burial Casket Manufacturing	
	3996	Linoleum, Asphalted-Felt-Base, and Other Hard Surface Floor Coverings, Not Elsewhere Classified	326192	Resilient Floor Covering Manufacturing	

Sector Y. Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries					
Sub-sector	SIC Codes		NAICS Codes		Notes
	3999	Manufacturing Industries, Not Elsewhere Classified <			

Sector Y. Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(matches and match books manufacturing)	325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing	Any facility whose primary activity is matches and match books manufacturing (SIC 3999 / NAICS 325998) should be regulated under Sector C, but may continue to be regulated under Sector Y, or alternatively, under Sector AD. Sectors C and Y do not require additional sector-specific requirements. EPA could establish additional facility-specific monitoring and reporting requirements under Sector AD. Regulatory burden is not expected to differ between Sectors C and Y.
		(plastics products such as combs, hair curlers, etc.)	326199	All Other Plastics Product Manufacturing	
		(hand operated hair clippers for humans)	332211	Cutlery and Flatware (except Precious) Manufacturing	Any facility whose primary activity is manufacturing hand operated hair clippers for humans (SIC 3999 / NAICS 332211) should be regulated under Sector AA, but may continue to be regulated under Sector Y, or alternatively, under Sector AD. Sector AA applies additional technology- based effluent limits comprised of good housekeeping measures, spill prevention and response procedures, and spills and leaks; additional SWPPP requirements; and additional inspection requirements. Sector Y does not require additional sector- specific requirements. EPA could establish additional facility-specific monitoring and reporting requirements under Sector AD. Regulatory burden would be greater under Sector AA.

Sector Y. Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(tape measures)	332212	Hand and Edge Tool Manufacturing	Any facility whose primary activity is manufacturing tape measures (SIC 3999 / NAICS 332212) should be regulated under Sector AA, but may continue to be regulated under Sector Y, or alternatively, under Sector AD. Sector AA applies additional
					technology-based effluent limits comprised of good housekeeping measures, spill prevention and response procedures, and spills and leaks; additional SWPPP requirements; and additional inspection requirements. Sector Y does not require additional sector- specific requirements. EPA could establish additional facility-specific monitoring and reporting requirements under Sector AD. Regulatory burden would be greater under Sector AA.
		(flocking metal products for the trade)	332812	Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers	Any facility whose primary activity is manufacturing flocking metal products for the trade (SIC 3999 / NAICS 332812) should be regulated under Sector AA, but may continue to be regulated under Sector Y, or alternatively, under Sector AD. Sector AA applies additional technology- based effluent limits comprised of good housekeeping measures, spill prevention and response procedures, and spills and leaks; additional SWPPP requirements; and additional inspection requirements. Sector Y does not require additional sector- specific requirements. EPA could establish additional facility-specific monitoring and reporting requirements under Sector AD. Regulatory burden would be greater under Sector AA.

Sector Y. Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(other miscellaneous metal products, such as combs, hair curlers, etc.)	332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	Any facility whose primary activity is manufacturing other miscellaneous metal products, such as combs, hair curlers, etc. (SIC 3999 / NAICS 332999) should be regulated under Sector AA, but may continue to be regulated under Sector Y, or alternatively, under Sector AD. Sector
					AA applies additional technology- based effluent limits comprised of good housekeeping measures, spill prevention and response procedures, and spills and leaks; additional SWPPP requirements; and additional inspection requirements. Sector Y does not require additional sector- specific requirements. EPA could establish additional facility-specific monitoring and reporting requirements under Sector AD. Regulatory burden would be greater under Sector AA.
		(beauty and barber shop equipment, except chairs)	333319	Other Commercial and Service Industry Machinery Manufacturing	
		(lamp shades of paper or textile)	335121	Residential Electric Lighting Fixture Manufacturing	
		(electric hair clippers for humans)	335211	Electric Housewares and Household Fan Manufacturing	Any facility whose primary activity is manufacturing electric hair clippers for humans (SIC 3999 / NAICS 335211) should be regulated under Sector AC, but may continue to be regulated under Sector Y, or alternatively, under Sector AD. Sectors Y and AC do not apply sector-specific requirements to facilities manufacturing electric hair clippers for humans. EPA may establish facility-specific monitoring and reporting requirements under Sector AD. Regulatory burden is not expected to differ between Sectors Y and AC.

Sector Y. Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(beauty and barber chairs)	337127	Institutional Furniture Manufacturing	Any facility whose primary activity is manufacturing beauty and barber chairs (SIC 3999 / NAICS 337127) should be regulated under Sector W, but may continue to be regulated under Sector Y, or alternatively, under Sector AD. Sector W applies additional SWPPP requirements to facilities manufacturing beauty and barber chairs. Sector Y applies no additional requirements and under Sector AD EPA could establish additional facility-specific monitoring and reporting requirements. Regulatory burden would be greater under Sector W.
		(embroidery kits)	339932	Game, Toy, and Children's Vehicle Manufacturing	
		(other miscellaneous products not specially provided for previously)	339999	All Other Miscellaneous Manufacturing	

Sector Z. Leather Tanning and Finishing					
Sub-sector	SIC Codes		NAICS Codes		Notes
Z1	3111	Leather Tanning and Finishing	316110	Leather and Hide Tanning and Finishing	

Sector AA. Fabricated Metal Products					
Sub-sector	SIC Codes		NAICS Codes		Notes
AA1	3411	Metal Cans	332431	Metal Can Manufacturing	
	3412	Metal Shipping Barrels, Drums, Kegs, and Pails	332439	Other Metal Container Manufacturing	
	3421	Cutlery (except hedge shears and trimmers, tinnerns' snips, and similar nonelectric hand tools)	332211	Cutlery and Flatware (except Precious) Manufacturing	
		(hedge shears and trimmers, tinnerns' snips, and similar nonelectric hand tools)	332212	Hand and Edge Tool Manufacturing	
	3423	Hand and Edge Tools, Except Machine Tools and Handsaws	332212	Hand and Edge Tool Manufacturing	
	3425	Saw Blades and Handsaws	332213	Saw Blade and Handsaw Manufacturing	
	3429	Hardware, Not Elsewhere Classified (vacuum and insulated bottles, jugs, and chests) (except fire hose nozzles, hose couplings, vacuum and insulated bottles, jugs and chests, fireplace fixtures, time locks, turnbuckles, pulleys, tackle blocks, luggage and utility racks, sleep sofa mechanisms and chair glides, traps, handcuffs and leg irons, ladder jacks, and other like metal products)	332439	Other Metal Container Manufacturing	
			332510	Hardware Manufacturing	
			(turnbuckles and hose clamps)	332722	Bolt, Nut, Screw, Rivet, and Washer Manufacturing
(fire hose nozzles and hose couplings)			332919	Other Metal Valve and Pipe Fitting Manufacturing	
(fireplace fixtures, traps, handcuffs and leg irons, ladder jacks, and other like metal products)			332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	
(pulleys, tackle blocks, block and tackle assemblies)			333923	Overhead Traveling Crane, Hoist, and Monorail System Manufacturing	
(time locks)			334518	Watch, Clock, and Part Manufacturing	
(luggage and utility racks)			336399	All Other Motor Vehicle Parts Manufacturing	
(sleep sofa mechanisms and chair glides)			337215	Showcase, Partition, Shelving, and Locker Manufacturing	
3431		Enameled Iron and Metal Sanitary Ware	332998	Enameled Iron and Metal Sanitary Ware Manufacturing	
3432		Plumbing Fixture Fittings and Trim			

Sector AA. Fabricated Metal Products							
Sub-sector	SIC Codes		NAICS Codes		Notes		
		(except shower rods, lawn hose nozzles, and lawn sprinklers)	332913	Plumbing Fixture Fitting and Trim Manufacturing			
		(lawn hose nozzles and lawn sprinklers)	332919	Other Metal Valve and Pipe Fitting Manufacturing			
		(metal shower rods)	332999	All Other Miscellaneous Fabricated Metal Product Manufacturing			
	3442	Metal Doors, Sash, Frames, Molding, and Trim Manufacturing					
	3443	Fabricated Plate Work (Boiler Shops) (fabricated plate work and metal weldments)		332313	Plate Work Manufacturing		
		(power boilers and heat exchangers)		332410	Power Boiler and Heat Exchanger Manufacturing		
		(heavy gauge tanks)		332420	Metal Tank (Heavy Gauge) Manufacturing		
		(metal cooling towers)		333415	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing (metal cooling towers)		
	3444	Sheet Metal Work (stamped metal skylights)		332321	Metal Window and Door Manufacturing		
		(except sheet metal bins and vats, skylights, and sheet metal cooling towers)		332322	Sheet Metal Work Manufacturing		
		(metal bins and vats)		332439	Other Metal Container Manufacturing		
		(cooling towers, sheet metal)		333415	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing		
		3446	Architectural and Ornamental Ironwork		332323	Ornamental and Architectural Metal Work Manufacturing	
		3448	Prefabricated Metal Buildings and Components		332311	Prefabricated Metal Building and Component Manufacturing	
		3449	Miscellaneous Structural Metal Work (custom roll forming)		332114	Custom Roll Forming	
			(fabricated bar joists and concrete reinforcing bars)		332312	Fabricated Structural Metal Manufacturing	
(curtain wall and metal plaster bases and lath)			332323	Ornamental and Architectural Metal Work Manufacturing			
3451		Screw Machine Products		332721	Precision Turned Product Manufacturing		
3452		Bolts, Nuts, Screws, Rivets, and Washers		332722	Bolt, Nut, Screw, Rivet, and Washer Manufacturing		
3462		Iron and Steel Forgings		332111	Iron and Steel Forging		
3463		Nonferrous Forgings		332112	Nonferrous Forging		

Sector AA. Fabricated Metal Products				
Sub-sector	SIC Codes		NAICS Codes	
	3465	Automotive Stampings	336370	Motor Vehicle Metal Stamping
	3466	Crowns and Closures	332115	Crown and Closure Manufacturing
	3469	Metal Stampings, Not Elsewhere Classified (except kitchen utensils, pots and pans for cooking, coins, and stamped metal boxes)	332116	Metal Stamping
		(kitchen utensils, pots, and pans for cooking)	332214	Kitchen Utensil, Pot, and Pan Manufacturing
		(stamped metal tool, cash, mail, and lunch boxes)	332439	Other Metal Container Manufacturing
	3471	Electroplating, Plating, Polishing, Anodizing, and Coloring	332813	Electroplating, Plating, Polishing, Anodizing, and Coloring
AA2	3479	Coating, Engraving, and Allied Services, Not Elsewhere Classified (except jewelry, silverware, and flatware engraving and etching)	332812	Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers
		(precious metal jewelry engraving and etching)	339911	Jewelry (except Costume) Manufacturing
		(silver and plated ware engraving and etching)	339912	Silverware and Holloware Manufacturing
		(costume jewelry engraving and etching)	339914	Costume Jewelry and Novelty Manufacturing
AA1	3482	Small Arms Ammunition	332992	Small Arms Ammunition Manufacturing
	3483	Ammunition, Except for Small Arms	332993	Ammunition (except for Small Arms) Manufacturing
	3484	Small Arms	332994	Small Arms Manufacturing

Sector AA. Fabricated Metal Products				
Sub-sector	SIC Codes		NAICS Codes	
	3489	Ordinance and Accessories, Not Elsewhere Classified	332995	Other Ordinance and Accessories Manufacturing
	3491	Industrial Valves	332911	Industrial Valve Manufacturing
	3492	Fluid Power Valves and Hose Fittings	332912	Fluid Power Valve and Hose Fitting Manufacturing
	3493	Steel Springs, Except Wire	332611	Spring (Heavy Gauge) Manufacturing
	3494	Valves and Pipe Fittings, Not Elsewhere Classified (except metal pipe hangers and supports)	332919	Other Metal Valve and Pipe Fitting Manufacturing
		(metal pipe hangers and supports)		
	3495	Wire Springs (except watch and clock springs)	332612	Spring (Light Gauge) Manufacturing
		(clock and watch springs)	334518	Watch, Clock, and Part Manufacturing
	3496	Miscellaneous Fabricated Wire Products (potato mashers)	332214	Kitchen Utensil, Pot, and Pan Manufacturing
		(except shopping carts and potato mashers)	332618	Other Fabricated Wire Product Manufacturing
		(shopping carts made from purchased wire)	333924	Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing
	3497	Metal Foil and Leaf (laminated aluminum foil rolls and sheets for flexible packaging uses)	322225	Laminated Aluminum Foil Manufacturing for Flexible Packaging Uses
		(foil and foil containers)	332999	All Other Miscellaneous Fabricated Metal Product Manufacturing
	3498	Fabricated Pipe and Pipe Fittings	332996	Fabricated Pipe and Pipe Fitting Manufacturing
	3499	Fabricated Metal Products, Not Elsewhere Classified (powder metallurgy)	332117	Powder Metallurgy Part Manufacturing
		(metal boxes)	332439	Other Metal Container Manufacturing
		(safe and vault locks)	332510	Hardware Manufacturing
		(metal aerosol valves)	332919	Other Metal Valve and Pipe Fitting Manufacturing
		(other metal products)	332999	All Other Miscellaneous Fabricated Metal Product Manufacturing
		(metal automobile seat frames)	336360	Motor Vehicle Seating and Interior Trim Manufacturing
		(metal furniture frames)	337215	Showcase, Partition, Shelving, and Locker Manufacturing
	3911	Jewelry, Precious Metal	339911	Jewelry (except Costume) Manufacturing

Sector AA. Fabricated Metal Products					
Sub-sector	SIC Codes		NAICS Codes		Notes
	3914	Silverware, Plated Ware, and Stainless Steel Ware (cutlery and flatware, nonprecious and precious plated)	332211	Cutlery and Flatware (except Precious) Manufacturing	
		(precious metal plated hollowware)	332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	
		(except nonprecious and precious plated metal cutlery, flatware, and hollowware)	339912	Silverware and Holloware Manufacturing	
	3915	Jewelers Findings and Materials and Lapidary Work (watch jewels)	334518	Watch, Clock, and Part Manufacturing	Any facility whose primary activity is manufacturing watch jewels (SIC 3915 / NAICS 334518) should be regulated under Sector AC, but may continue to be regulated under Sector AA, or alternatively, under Sector AD. Sector AA applies additional technology- based effluent limits comprising good housekeeping measures, spill prevention and response, and spills and leaks; additional SWPPP requirements; and additional inspection requirements. Sector AC does not apply additional sector- specific requirements and EPA may establish facility-specific monitoring and reporting requirements under Sector AD.
		(except watch jewels)			339913

Sector AB. Transportation Equipment, Industrial or Commercial Machinery				
Sub-sector	SIC Codes		NAICS Codes	
AB1	3511	Steam, Gas, and Hydraulic Turbines, and Turbine Generator Set Units	333611	Turbine and Turbine Generator Set Units Manufacturing
	3519	Internal Combustion Engines, Not Elsewhere Classified		
		(except stationary engine radiators)	333618	Other Engine Equipment Manufacturing
		(stationary engine radiators)	333639	All Other Motor Vehicle Parts Manufacturing
	3523	Farm Machinery and Equipment		
		(hand hair clippers for animals)	332212	Hand and Edge Tool Manufacturing
		(corrals, stalls, and holding gates)	332323	Ornamental and Architectural Metal Work Manufacturing
		(except corrals, stalls, holding gates, hand clippers for animals, and farm conveyors/elevators)	333111	Farm Machinery and Equipment Manufacturing
		(farm conveyors and elevators)	333922	Conveyor and Conveying Equipment Manufacturing
	3524	Lawn and Garden Tractors and Home Lawn and Garden Equipment		
		(nonpowered lawnmowers)	332212	Hand and Edge Tool Manufacturing
		(except nonpowered lawnmowers)	333112	Lawn and Garden Tractor and Home Lawn and Garden Equipment Manufacturing
	3531	Construction Machinery and Equipment		
		(except railway track maintenance equipment; winches, aerial work platforms; and automotive wrecker hoists)	333120	Construction Machinery Manufacturing
		(winches, aerial work platforms, automobile wrecker hoists, locomotive cranes, and ship cranes)	333923	Overhead Traveling Crane, Hoist, and Monorail System Manufacturing
		(railway track maintenance equipment)	336510	Railroad Rolling Stock Manufacturing
	3532	Mining Machinery and Equipment, Except Oil and Gas Field Machinery and Equipment	333131	Mining Machinery and Equipment Manufacturing
	3533	Oil and Gas Field Machinery and Equipment	333132	Oil and Gas Field Machinery and Equipment Manufacturing
	3534	Elevators and Moving Stairways	333921	Elevators and Moving Stairway Manufacturing
	3535	Conveyors and Conveying Equipment	333922	Conveyors and Conveying Equipment Manufacturing
	3536	Overhead Traveling Cranes, Hoists, and Monorail Systems	333923	Overhead Traveling Cranes, Hoists, and Monorail System Manufacturing

Sector AB. Transportation Equipment, Industrial or Commercial Machinery				
Sub-sector	SIC Codes		NAICS Codes	
	3537	Industrial Trucks, Tractors, Trailers, and Stackers (metal air cargo containers)	332439	Other Metal Container Manufacturing
		(metal pallets)	332999	All Other Miscellaneous Fabricated Metal Product Manufacturing
		(except metal pallets and metal air cargo containers)	333924	Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing
	3541	Machine Tools, Metal Cutting Types	333512	Machine Tool (Metal Cutting Types) Manufacturing
	3542	Machine Tools, Metal Forming Types	333513	Machine Tool (Metal Forming Types) Manufacturing
	3543	Industrial Patterns	332997	Industrial Pattern Manufacturing
	3544	Special Dies and Tools, Die Sets, Jigs and Fixtures, and Industrial Molds (industrial molds)	333511	Industrial Mold Manufacturing
		(except molds)	333514	Special Die and Tool, Die Set, Jig, and Fixture Manufacturing
	3545	Cutting Tools, Machine Tool Accessories, and Machinist Precision Measuring Devices (precision measuring devices)	332212	Hand and Edge Tool Manufacturing
		(except precision measuring devices)	333515	Cutting Tool and Machine Tool Accessory Manufacturing
	3546	Power-Driven Handtools	333991	Power-Driven Handtool Manufacturing
	3547	Rolling Mill Machinery and Equipment	333516	Rolling Mill Machinery and Equipment Manufacturing
	3548	Electric and Gas Welding and Soldering Equipment (except transformers for arc-welding)	333992	Welding and Soldering Equipment Manufacturing
		(transformers for arc-welders)	335311	Power, Distribution, and Specialty Transformer Manufacturing
	3549	Metalworking Machinery, Not Elsewhere Classified	333518	Other Metalworking Machinery Manufacturing
	3552	Textile Machinery	333292	Textile Machinery Manufacturing
	3553	Woodworking Machinery	333210	Sawmill and Woodworking Machinery Manufacturing
	3554	Paper Industries Machinery	333291	Paper Industry Machinery Manufacturing
	3555	Printing Trades Machinery and Equipment	333293	Printing Machinery and Equipment Manufacturing
	3556	Food Products Machinery	333294	Food Product Machinery Manufacturing

Sector AB. Transportation Equipment, Industrial or Commercial Machinery				
Sub-sector	SIC Codes		NAICS Codes	
	3559	Special Industry Machinery, Not Elsewhere Classified (nuclear control rod drive mechanisms)	332410	Power Boiler and Heat Exchanger Manufacturing
		(cotton ginning machinery)	333111	Farm Machinery and Equipment Manufacturing
		(rubber and plastics manufacturing machinery)	333220	Plastics and Rubber Industry Machinery Manufacturing
		(semiconductor machinery manufacturing)	333295	Semiconductor Machinery Manufacturing
		(except rubber and plastics manufacturing machinery, semiconductor manufacturing machinery, and automotive maintenance equipment)	333298	All Other Industrial Machinery Manufacturing
		(automotive maintenance equipment)	333319	Other Commercial and Service Industry Machinery Manufacturing
	3561	Pumps and Pumping Equipment	333911	Pump and Pumping Equipment Manufacturing
	3562	Ball and Roller Bearings	332991	Ball and Roller Bearing Manufacturing
	3563	Air and Gas Compressors	333912	Air and Gas Compressor Manufacturing
	3564	Industrial and Commercial Fans and Blowers and Air Purification Equipment		
		(air purification equipment)	333411	Air Purification Equipment Manufacturing
		(fans and blowers)	333412	Industrial and Commercial Fan and Blower Manufacturing
	3565	Packaging Machinery	333993	Packaging Machinery Manufacturing
	3566	Speed Changers, Industrial High-Speed Drives, and Gears	333612	Speed Changer, Industrial High-Speed Drives, and Gear Manufacturing
	3567	Industrial Process Furnaces and Ovens	333994	Industrial Process Furnace and Oven Manufacturing
	3568	Mechanical Power Transmission Equipment, Not Elsewhere Classified	333613	Mechanical Power Transmission Equipment Manufacturing
	3569	General Industrial Machinery and Equipment, Not Elsewhere Classified (textile fire hose)	314999	All Other Miscellaneous Textile Product Mills
		(electric swimming pool heaters)	333414	Heating Equipment (except Warm Air Furnaces) Manufacturing
		(except fire hoses and electric swimming pool heaters)	333999	All Other Miscellaneous General Purpose Machinery Manufacturing
	3581	Automatic Vending Machines	333311	Automatic Vending Machine Manufacturing
	3582	Commercial Laundry, Drycleaning, and Pressing Machines	333312	Commercial Laundry, Drycleaning, and Pressing Machine Manufacturing

Sector AB. Transportation Equipment, Industrial or Commercial Machinery				
Sub-sector	SIC Codes		NAICS Codes	
	3585	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment (except motor vehicle air-conditioning) (motor vehicle air-conditioning)	333415	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing
			336391	Motor Vehicle Air-Conditioning Manufacturing
	3586	Measuring and Dispensing Pumps	333913	Measuring and Dispensing Pump Manufacturing
	3589	Service Industry Machinery, Not Elsewhere Classified	333319	Other Commercial and Service Industry Machinery Manufacturing
	3592	Carburetors, Pistons, Piston Rings, and Valves	336311	Carburetor, Piston, Piston Ring, and Valve Manufacturing
	3593	Fluid Power Cylinders and Actuators	333995	Fluid Power Cylinder and Actuator Manufacturing
	3594	Fluid Power Pumps and Motors	333996	Fluid Power Pumps and Motors Manufacturing
	3596	Scales and Balances, Except Laboratory	333997	Scale and Balance (except Laboratory) Manufacturing
	3599	Industrial and Commercial Machinery and Equipment, Not Elsewhere Classified (machine shops) (grinding castings for the trade) (flexible metal hose) (carnival amusement park equipment) (other industrial and commercial machinery and equipment) (water leak detectors) (gasoline, oil, and intake filters for internal combustion engines, except for motor vehicles)	332710	Machine Shops
			332813	Electroplating, Plating, Polishing, Anodizing and Coloring
			332999	All Other Miscellaneous Fabricated Metal Product Manufacturing
			333319	Other Commercial and Service Industry Machinery Manufacturing
			333999	All Other Miscellaneous General Purpose Machinery Manufacturing
			334519	Other Measuring and Controlling Device Manufacturing
			336399	All Other Motor Vehicle Parts Manufacturing
	3711	Motor Vehicles and Passenger Car Bodies (automobiles) (light trucks and utility vehicles) (heavy duty trucks) (kit car and other passenger car bodies)	336111	Automobile Manufacturing
			336112	Light Truck and Utility Vehicle Manufacturing
			336120	Heavy Duty Truck Manufacturing
			336211	Motor Vehicle Body Manufacturing

Sector AB. Transportation Equipment, Industrial or Commercial Machinery					
Sub-sector	SIC Codes		NAICS Codes		Notes
	3713	(military armored vehicles)	336992	Military Armored Vehicle, Tank, and Tank Component Manufacturing	
		Truck and Bus Bodies	336211	Motor Vehicle Body Manufacturing	
	3714	Motor Vehicle Parts and Accessories (dump truck lifting mechanisms and fifth wheels)	336211	Motor Vehicle Body Manufacturing	
		(gasoline engines and engine parts including rebuilt)	336312	Gasoline Engine and Engine Parts Manufacturing	
		(wiring harness sets, other than ignition; block heaters and battery heaters; instrument board assemblies; permanent defrosters; windshield washer-wiper mechanisms; cruise control mechanisms; and other electrical equipment for internal combustion engines)	336322	Other Motor Vehicle Electrical and Electronic Equipment Manufacturing	
		(steering and suspension parts)	336330	Motor Vehicle Steering and Suspension Components (except Spring) Manufacturing	
		(brake and brake systems, including assemblies)	336340	Motor Vehicle Brake System Manufacturing	
		(transmissions and power train parts, including rebuilding)	336350	Motor Vehicle Transmission and Power Train Parts Manufacturing	
		(except truck and bus bodies, trailers, engine and engine parts, motor vehicle electrical and electronic equipment, motor vehicle steering and suspension components, motor vehicle brake systems, and motor vehicle transmission and power train parts)	336399	All Other Motor Vehicle Parts Manufacturing	
	3715	Truck Trailers	336212	Truck Trailer Manufacturing	
	3716	Motor Homes	336213	Motor Home Manufacturing	
	3721	Aircraft (except research and development not producing prototypes)	336411	Aircraft Manufacturing	
	3724	Aircraft Engines and Engine Parts (except research and development not producing prototypes)	336412	Aircraft Engine and Engine Parts Manufacturing	
	3728	Aircraft Parts and Auxiliary Equipment, Not Elsewhere Classified (fluid power aircraft subassemblies)	332912	Fluid Power Valve and Hose Fitting Manufacturing	
		(target drones)	336411	Aircraft Manufacturing	

Sector AB. Transportation Equipment, Industrial or Commercial Machinery					
Sub-sector	SIC Codes		NAICS Codes		Notes
	3743	(except fluid power aircraft subassemblies, target drones, and research and development not producing prototypes)	336413	Other Aircraft Part and Auxiliary Equipment Manufacturing	
		Railroad Equipment (locomotive fuel lubricating or cooling medium pumps)	333911	Pump and Pumping Equipment Manufacturing	
		(except locomotive fuel lubricating or cooling medium pumps)	336510	Railroad Rolling Stock Manufacturing	
	3751	Motorcycles, Bicycles, and Parts	336991	Motorcycle, Bicycle, and Parts Manufacturing	
	3761	Guided Missiles and Space Vehicles (except research and development not producing prototypes)	336414	Guided Missile and Space Vehicle Manufacturing	
	3764	Guided Missile and Space Vehicle Propulsion Units and Propulsion Unit Parts (except research and development not producing prototypes)	336415	Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing	
	3769	Guided Missile and Space Vehicle Parts and Auxiliary Equipment, Not Elsewhere Classified (except research and development not producing prototypes)	336419	Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing	
	3792	Travel Trailers and Campers	336214	Travel Trailer and Camper Manufacturing	
	3795	Tanks and Tank Components	336992	Military Armored Vehicle, Tank, and Tank Component Manufacturing	
	3799	Transportation Equipment, Not Elsewhere Classified			
		(wheelbarrows)	333924	Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing	
		(automobile, boat, utility and light truck trailers)	336214	Travel Trailer and Camper Manufacturing	
		(trailer hitches)	336399	All Other Motor Vehicle Parts Manufacturing	
	(except automobile, boat, utility light truck trailers, trailer hitches, and wheelbarrows)	336999	All Other Transportation Equipment Manufacturing		

Sector AC. Electronic, Electrical, Photographic and Optical Goods					
Sub-sector	SIC Codes		NAICS Codes		Notes
AC1	3571	Electronic Computers	334111	Electronic Computer Manufacturing	
	3572	Computer Storage Devices	334112	Computer Storage Device Manufacturing	
	3575	Computer Terminals	334113	Computer Terminal Manufacturing	
	3577	Computer Peripheral Equipment, Not Elsewhere Classified (except plotter controllers and magnetic tape head cleaners)	334119	Other Computer Peripheral Equipment Manufacturing	
		(plotter controllers)	334418	Printed Circuit Assembly (Electronic Assembly) Manufacturing	
		(magnetic tape head cleaners)	334613	Magnetic and Optical Recording Media Manufacturing	
	3578	Calculating and Accounting Machinery, Except Electronic Computers (change making machines)	333311	Automatic Vending Machine Manufacturing	
		(except point of sales terminals, change making machines and funds transfer devices)	333313	Office Machinery Manufacturing	
		(point of sale terminals and fund transfer devices)	334119	Other Computer Peripheral Equipment Manufacturing	
	3579	Office Machines, Not Elsewhere Classified (except timeclocks, time stamps, pencil sharpeners, stapling machines, etc.)	333313	Office Machinery Manufacturing	
		(time clocks and other time recording devices)	334518	Watch, Clock, and Part Manufacturing	
		(pencil sharpeners, staplers and other office equipment)	339942	Lead Pencil and Art Good Manufacturing	
	3612	Power, Distribution, and Specialty Transformers	335311	Power, Distribution, and Specialty Transformer Manufacturing	
	3613	Switchgear and Switchboard Apparatus	335313	Switchgear and Switchboard Apparatus Manufacturing	
	3621	Motors and Generators	335312	Motors and Generator Manufacturing	
	3624	Carbon and Graphite Products	335991	Carbon and Graphite Product Manufacturing	
	3625	Relays and Industrial Controls	335314	Relay and Industrial Control Manufacturing	
	3629	Electrical Industrial Apparatus, Not Elsewhere Classified	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing	
	3631	Household Cooking Equipment	335221	Household Cooking Appliance Manufacturing	
	3632	Household Refrigerators and Home and Farm Freezers	335222	Household Refrigerator and Home Freezer Manufacturing	

Sector AC. Electronic, Electrical, Photographic and Optical Goods					
Sub-sector	SIC Codes		NAICS Codes		Notes
	3633	Household Laundry Equipment	335224	Household Laundry Equipment Manufacturing	
	3634	Electric Housewares and Fans (wall and baseboard heating units for permanent installation)	333414	Heating Equipment (except Warm Air Furnaces) Manufacturing	
		(except wall and baseboard heating units for permanent installation, electronic cigarette lighters, and wall mount restroom hand dryers)	335211	Electric Housewares and Household Fan Manufacturing	
		(electronic cigarette lighters)	339999	All Other Miscellaneous Manufacturing	
	3635	Household Vacuum Cleaners	335212	Household Vacuum Cleaner Manufacturing	
	3639	Household Appliances, Not Elsewhere Classified (household sewing machines)	333298	All Other Industrial Machinery Manufacturing	
		(floor waxing and floor polishing machines)	335212	Household Vacuum Cleaner Manufacturing	
		(except floor waxing and floor polishing machines, and household sewing machines)	335228	Other Major Household Appliance Manufacturing	
	3641	Electric Lamp Bulbs and Tubes	335110	Electric Lamp Bulbs and Part Manufacturing	
	3643	Current-Carrying Wiring Devices	335931	Current-Carrying Wiring Device Manufacturing	
	3644	Noncurrent-Carrying Wiring Devices (fish wire, electrical wiring tool)	332212	Hand and Edge Tool Manufacturing	Any facility whose primary activity is manufacturing fish wire, electrical wiring tool (SIC 3644 / NAICS 332212) should be regulated under Sector AA, but may continue to be regulated under Sector AC, or alternatively, under Sector AD. Sector AA applies additional technology-based effluent limits comprising good housekeeping measures, spill prevention and response, and spills and leaks; additional SWPPP requirements; and additional inspection requirements. Sector AC does not apply additional sector-specific requirements and EPA may establish facility-specific monitoring and reporting requirements under Sector AD. Regulatory burden would be greater under Sector AA.
		(except fishwire, electrical wiring tool)	335932	Noncurrent-Carrying Wiring Device Manufacturing	

Sector AC. Electronic, Electrical, Photographic and Optical Goods					
Sub-sector	SIC Codes		NAICS Codes		Notes
	3645	Residential Electric Lighting Fixtures	335121	Residential Electric Lighting Fixture Manufacturing	
	3646	Commercial, Industrial, and Institutional Electric Lighting Fixtures	335122	Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing	
	3647	Vehicular Lighting Equipment	336321	Vehicular Lighting Equipment Manufacturing	
	3648	Lighting Equipment, Not Elsewhere Classified	335129	Other Lighting Equipment Manufacturing	
	3651	Household Audio and Video Equipment	334310	Audio and Video Equipment Manufacturing	
	3652	Phonograph Records and Prerecorded Audio Tapes and Disks (reproduction of all other media except video)	334612	Prerecorded Compact Disc (except Software), Tape, and Record Reproducing	
	3661	Telephone and Telegraph Apparatus (except consumer external modems)	334210	Telephone Apparatus Manufacturing	
		(consumer external modems)	334418	Printed Circuit Assembly (Electronic Assembly) Manufacturing	
	3663	Radio and Television Broadcasting and Communications Equipment	334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	
	3669	Communications Equipment, Not Elsewhere Classified	334290	Other Communications Equipment Manufacturing	
	3671	Electron Tubes	334411	Electron Tube Manufacturing	
	3672	Printed Circuit Boards	334412	Bare Printed Circuit Board Manufacturing	
	3674	Semiconductors and Related Devices	334413	Semiconductor and Related Device Manufacturing	
	3675	Electronic Capacitors	334414	Electronic Capacitor Manufacturing	
	3676	Electronic Resistors	334415	Electronic Resistor Manufacturing	
	3677	Electronic Coils, Transformers, and Other Inductors	334416	Electronic Coil, Transformer, and Other Inductor Manufacturing	
	3678	Electronic Connectors	334417	Electronic Connector Manufacturing	
	3679	Electronic Components, Not Elsewhere Classified (antennas)	334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	
		(radio headphones)	334310	Audio and Video Equipment Manufacturing	
		(printed circuit/electronic assembly manufacturing)	334418	Printed Circuit Assembly (Electronic Assembly) Manufacturing	
		(other electronic components)	334419	Other Electronic Component Manufacturing	
	3691	Storage Batteries	335911	Storage Battery Manufacturing	
	3692	Primary Batteries, Dry and Wet	335912	Primary Battery Manufacturing	

Sector AC. Electronic, Electrical, Photographic and Optical Goods					
Sub-sector	SIC Codes		NAICS Codes		Notes
	3694	Electrical Equipment for Internal Combustion Engines	336322	Other Motor Vehicle Electrical and Electronic Equipment Manufacturing	
	3695	Magnetic and Optical Recording Media	334613	Magnetic and Optical Recording Media Manufacturing	
	3699	Electrical Machinery, Equipment, and Supplies, Not Elsewhere Classified (electronic teaching machines and flight simulators)	333319	Other Commercial and Service Industry Machinery Manufacturing	
		(outboard electric motors)	333618	Other Engine Equipment Manufacturing	Any facility whose primary activity is manufacturing outboard electric motors (SIC 3699 / NAICS 333618) should be regulated under Sector AB, but may continue to be regulated under Sector AC, or alternatively, under Sector AD. Sector AB applies additional sector-specific SWPPP requirements. Sector AC does not apply additional sector-specific requirements and EPA may establish facility-specific monitoring and reporting requirements under Sector AD.
					Regulatory burden would be greater under Sector AB.
		(laser welding and soldering equipment)	333992	Welding and Soldering Equipment Manufacturing	
		(Christmas tree lighting sets, electric insect lamps, electric fireplace logs, and trouble lights)	335129	Other Lighting Equipment Manufacturing	
		(other electrical industrial apparatus)	335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing	
	3812	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical Systems and Instruments	334511	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing	
	3821	Laboratory Apparatus and Furniture	339111	Laboratory Apparatus and Furniture Manufacturing	
	3822	Automatic Controls for Regulating Residential and Commercial Environments and Appliances	334512	Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use	
	3823	Industrial Instruments for Measurement, Display, and Control of Process Variables; and Related Products	334513	Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables	

Sector AC. Electronic, Electrical, Photographic and Optical Goods					
Sub-sector	SIC Codes		NAICS Codes		Notes
	3824	Totalizing Fluid Meters and Counting Devices	334514	Totalizing Fluid Meter and Counting Device Manufacturing	
	3825	Instruments for Measuring and Testing of Electricity and Electrical Signals	334514	Totalizing Fluid Meter and Counting Device Manufacturing	
		(automotive ammeters and voltmeters)			
		(except automotive instruments)	334515	Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals	
	3826	Laboratory Analytical Instruments	334516	Analytical Laboratory Instrument Manufacturing	
	3827	Optical Instruments and Lenses	333314	Optical Instruments and Lens Manufacturing	
	3829	Measuring and Controlling Devices, Not Elsewhere Classified	334514	Totalizing Fluid Meter and Counting Device Manufacturing	
		(motor vehicle gauges)			
		(electronic chronometers)	334518	Watch, Clock, and Part Manufacturing	
		(except medical thermometers, electronic chronometers and motor vehicle gauges)	334519	Other Measuring and Controlling Device Manufacturing	
	(medical thermometers)	339112	Surgical and Medical Instrument Manufacturing		
	3841	Surgical and Medical Instruments and Apparatus (tranquilizer guns)	332994	Small Arms Manufacturing	Any facility whose primary activity is manufacturing tranquilizer guns (SIC 3841 / NAICS 332994) should be regulated under Sector AA, but may continue to be regulated under Sector AC, or alternatively, under Sector AD. Sector AA applies additional technology-based effluent limits comprising good housekeeping measures, spill prevention and response, and spills and leaks; additional SWPPP requirements; and additional inspection requirements. Sector AC does not apply additional sector-specific requirements and EPA may establish facility-specific monitoring and reporting requirements under Sector AD. Regulatory burden would be greater under Sector AA.
		(operating room tables)	339111	Laboratory Apparatus and Furniture Manufacturing	

Sector AC. Electronic, Electrical, Photographic and Optical Goods					
Sub-sector	SIC Codes		NAICS Codes		Notes
		(except tranquilizer guns and operating room tables)	339112	Surgical and Medical Instrument Manufacturing	
	3842	Orthopedic, Prosthetic, and Surgical Appliances and Supplies (incontinent pads and bed pads)	322291	Sanitary Paper Product Manufacturing	Any facility whose primary activity is manufacturing incontinent pads and bed pads (SIC 3842 / NAICS 322291) should be regulated under Sector B, but may continue to be regulated under Sector AC, or alternatively, under Sector AD. Sectors B and AC do not apply additional sector-specific requirements. EPA may require additional facility-specific monitoring and reporting requirement under Sector AD. Regulatory burden is not expected to differ between Sectors B and AC.
		(electronic hearing aids)	334510	Electromedical and Electrotherapeutic Apparatus Manufacturing	
		(except electronic hearing aids, incontinent pads, anatomical models, and bed pads)	339113	Surgical Appliance and Supplies Manufacturing	
		(anatomical models)	339999	All Other Miscellaneous Manufacturing	
	3843	Dental Equipment and Supplies	339114	Dental Equipment and Supplies Manufacturing	
	3844	X-Ray Apparatus and Tubes and Related Irradiation Apparatus	334517	Irradiation Apparatus Manufacturing	
	3845	Electromedical and Electrotherapeutic Apparatus (except CT and CAT scanners)	334510	Electromedical and Electrotherapeutic Apparatus Manufacturing	
		(CT and CAT Scanners)	334517	Irradiation Apparatus Manufacturing	
	3851	Ophthalmic Goods (intraocular lenses, i.e., surgical implants)	339113	Surgical Appliance and Supplies Manufacturing	
		(except intraocular lenses)	339115	Ophthalmic Goods Manufacturing	
	3861	Photographic Equipment and Supplies (photographic films, paper, plates and chemicals)	325992	Photographic Film, Paper, Plate, and Chemical Manufacturing	
		(except photographic film, paper, plates, and chemicals)	333315	Photographic and Photocopying Equipment Manufacturing	
	3873	Watches, Clocks, Clockwork Operated Devices, and Parts	334518	Watch, Clock, and Part Manufacturing	

Sector AD. Non-Classified Facilities		
Sub-Sector	Narrative Description	Notes
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.	

Appendix O - Summary of Reports Permit Submittals

Permit Section	Applicable Operator	Report/Submittal	Frequency	Due Date(s)	Where to Submit
Part 1.1.4	Only for operators seeking coverage under Part 1.1.4 eligibility criterion C3	Procedures Relating to Endangered Species Protection Appendix E Criterion C3 Eligibility Form: Submittal of Criterion C Form	Once, if applicable	At the same time as the NOI for permit coverage is submitted (an additional 30 calendar day review period will apply)	Electronically using the NPDES eReporting Tool (NeT) for MSGP
Part 1.3	Operator operating consistent with EPA's No Action Assurance and submitted an Intent to Operate (ITO) form [Operators of industrial activities who commenced discharging between June 4, 2020 and March 1, 2021 and have been operating consistent with EPA's June 3, 2020 'No Action Assurance for the NPDES Stormwater Multi-Sector General Permit for Industrial Activities.']	Submittal of Notice of Intent (NOI)	Once per permit term	As soon as possible, but see the June 3, 2020 'No Action Assurance for the NPDES Stormwater Multi-Sector General Permit for Industrial Activities' (and any updates to that document) for additional guidance on deadlines.	Electronically using the NPDES eReporting Tool (NeT) for MSGP
Part 1.3	New facility without MSGP coverage (Operators of industrial activities that will commence discharging after March 1, 2021)	Submittal of Notice of Intent (NOI)	Once per permit term	At least 30 calendar days prior to commencing discharge	Electronically using the NPDES eReporting Tool (NeT) for MSGP
Part 1.3	Existing MSGP facility [Operators of industrial activities whose stormwater discharges were covered under the 2015 MSGP]	Submittal of Notice of Intent (NOI)	Once per permit term	No later than May 30, 2021. However, if you have not previously obtained coverage under an NPDES permit, you must submit your NOI immediately.	Electronically using the NPDES eReporting Tool (NeT) for MSGP

Permit Section	Applicable Operator	Report/Submittal	Frequency	Due Date(s)	Where to Submit
Part 1.3	Existing facility covered under an alternative permit [Operators seeking coverage for stormwater discharges previously covered under an individual permit or an alternative general permit]	Submittal of Notice of Intent (NOI)	Once per permit term	At least 30 calendar days prior to commencing discharge	Electronically using the NPDES eReporting Tool (NeT) for MSGP
Part 1.3	Existing MSGP facility with a new operator [New operators of existing industrial activities with stormwater discharges previously authorized under the 2021 MSGP]	Submittal of Notice of Intent (NOI)	Once per permit term	At least 30 calendar days prior to the date of transfer of control to the new operator.	Electronically using the NPDES eReporting Tool (NeT) for MSGP
Part 1.3	Existing facility without MSGP coverage [Operators of industrial activities that commenced discharging prior to March 1, 2021, but whose stormwater discharges were not covered under the 2015 MSGP or another NPDES permit and have not been operating consistent with EPA's No Action Assurance for EPA's NPDES MSGP]	Submittal of Notice of Intent (NOI)	Once per permit term	Immediately; your stormwater discharges are currently unpermitted.	Electronically using the NPDES eReporting Tool (NeT) for MSGP

Permit Section	Applicable Operator	Report/Submittal	Frequency	Due Date(s)	Where to Submit
Part 1.3.4	An operator needing to correct or update any NOI fields	Submittal of a Change NOI	As applicable	<p>For existing operator, within 30 calendar days after the change occurs.</p> <p>Within 30 calendar days of the transfer in operator or a new operator taking over operational control at an existing facility, the new operator must submit a new NOI.</p> <p>No later than 30 calendar days after MSGP coverage becomes active for the new operator, the previous operator must submit a Notice of Termination (NOT) per Part 1.4.</p>	Electronically using the NPDES eReporting Tool (NeT) for MSGP
Part 1.4	An operator seeking to terminate their permit coverage under the 2021 MSGP	Notice of Termination	Once, if applicable	<p>Within 30 days after:</p> <ul style="list-style-type: none"> • a new operator takes over responsibility for the facility; or • operations and stormwater discharges have ceased; or • for Sector G, H, or J facilities, the applicable termination requirements have been met; or • alternative permit coverage has been obtained 	Electronically using the NPDES eReporting Tool (NeT) for MSGP

Permit Section	Applicable Operator	Report/Submittal	Frequency	Due Date(s)	Where to Submit
Part 1.5	An eligible operator seeking an exclusion from NPDES permitting per 40 CFR 122.26(g)	Conditional "No Exposure" Certification Form (NEC)	If eligible, once every 5 years	As necessary	Electronically using the NPDES eReporting Tool (NeT) for MSGP
Part 3.1.6	All operators, unless eligible for an exception	Routine Inspection Documentation	At least quarterly	By the end of the quarter	Reports are kept with SWPPP
Part 3.2.3	All operators, unless eligible for an exception	Quarterly Visual Assessment Documentation	At least quarterly	By the end of the quarter	Reports are kept with SWPPP
Part 5.3	Operators that must perform corrective action or Additional Implementation Measures per Parts 5.1 and 5.2	Corrective Action and AIM Documentation	<ul style="list-style-type: none"> Document existence of corrective action/AIM condition within 24 hours of becoming aware of the condition; Document corrective actions/AIMs taken or to be taken within 14 days from the time of discovery of the condition. 	As necessary	Reports are kept with SWPPP
Part 6 Part 7.3	All operators	Stormwater Pollution Prevention Plan (SWPPP)	<ul style="list-style-type: none"> Attach SWPPP to NOI, provide URL for SWPPP, or provide SWPPP information directly on the NOI form. Update the on-site SWPPP as site conditions indicate. At minimum, the SWPPP must be modified based on corrective actions and deadlines required under Part 5. 	<p>Develop initial SWPPP prior to the submittal of NOI form.</p> <p>Update the SWPPP information included in attachment to NOI, on URL, or on NOI form, at a minimum, no later than 45 days after conducting the final routine facility inspection for the year.</p>	Electronically using the NPDES eReporting Tool (NeT) for MSGP

Permit Section	Applicable Operator	Report/Submittal	Frequency	Due Date(s)	Where to Submit
Part 4 Part 7.4	All operators	Discharge Monitoring Reports (DMRs)	<ul style="list-style-type: none"> • <u>Indicator Monitoring for pH, Total Suspended Solids (TSS), and Chemical Oxygen Demand (COD) (Part 4.2.1.1.a.):</u> 1/quarter for entire permit coverage; • <u>Indicator Monitoring for Polycyclic Aromatic Hydrocarbons (PAHs) (Part 4.2.1.1.b):</u> 2/year in years 1 and 4 of permit coverage; • <u>Benchmark Monitoring (Part 4.2.2):</u> 1/quarter in years 1 and 4 of permit coverage (additional monitoring may be required if exceedances occur); • <u>Effluent Limitations Monitoring (Part 4.2.3):</u> 1/year for entire permit coverage; • <u>State or Tribal Monitoring (Part 4.2.4):</u> See Part 9 of the permit for frequency; • <u>Impaired Waters Monitoring (Part 4.2.5):</u> 1/year in years 1 and 4 of permit coverage for discharges to impaired waters without an EPA-approved or established total maximum daily load (TMDL) 	Within 30 days of receiving your full laboratory results for all monitored discharge points during the reporting period.	Electronically using EPA's electronic DMR tool (Net-DMR)

Permit Section	Applicable Operator	Report/Submittal	Frequency	Due Date(s)	Where to Submit
Part 7.4	All operators	Annual Report	1/year	By January 30th	Electronically using the NPDES eReporting Tool (NeT) for MSGP (NeT-MSGP)
Part 7.5	Operators subject to follow-up monitoring per Part 4.2.3.3	Exceedance Report for Numeric Effluent Limitations	If applicable	30 days after receiving laboratory results if 30-day follow-up monitoring indicates exceedance	Follow-up monitoring submitted Electronically using EPA's electronic DMR tool (Net-DMR) Exceedance reports submitted directly to the applicable EPA Regional Office listed in Part 7.8 of the permit
Part 7.6	Any applicable operator	Additional Reporting (Noncompliance endangering health, reportable quantity spills, etc.)	As necessary	Varies – see Part 7.6	Varies – see Part 7.6

Appendix P - List of Federal CERCLA Sites

Part 1.1.7 of the MSGP has special requirements for discharges to a federal CERCLA site.¹

If your facility discharges to one of the federal CERCLA sites listed below, you must notify the EPA Regional Office when submitting your NOI and the EPA Regional Office must determine that you are eligible for permit coverage. In determining eligibility for coverage under Part 1.1.7, the EPA Regional Office may evaluate whether you are implementing or plan to implement adequate controls and/or procedures to ensure your discharge will not lead to recontamination of aquatic media at the CERCLA Site, (i.e., your stormwater discharge will not be controlled as necessary such that the receiving water of the United States will meet an applicable water quality standard. If it is determined that your facility discharges to a CERCLA Site listed below after you have obtained coverage under this permit, you must contact your EPA Regional Office and ensure that you have either implemented or will implement adequate controls and/or procedures to ensure that your discharges will not lead to recontamination of aquatic media at the CERCLA Site such that your stormwater discharge will be controlled as necessary such that the receiving water of the United States will meet an applicable water quality standard.

EPA Region 10		
<p>The CERCLA Sites and the receiving waters associated with these sites to which the requirements of Part 1.1.7 apply are listed in the table below. The areas where the permit applies are enumerated in Appendix C of the permit. Operators who discharge / intend to discharge into the receiving waters listed below must first contact the EPA Regional Office before submitting an NOI. Contact information is viewable at: https://www.epa.gov/npdes-permits/stormwater-discharges-industrial-activities-region-10.</p> <p>Similarly, if you have received notice from EPA that the facility to be covered under the MSGP is considered a potential source to a clean up site, you must first contact the Regional EPA office before submitting an NOI.</p>		
	Waterbody (HUC code/Watershed)	Superfund Sites CERCLIS ID Latitude / Longitude Major Contaminants
ID	St. Joe River; Coeur d'Alene Lake Basin	St. Maries Creosote IDSFN1002095 47.191697 / -116.343000L PAHs, HPAHs
WA	Commencement Bay, Puget Sound	Commencement Bay, Near Shore/Tide Flats WAD980726368 47.155998 / -122.245998 Dioxins, furans, arsenic, copper, lead, zinc, 4-methyl-phenol, Hex-CB, HPAHs, PCBs, PCE, cadmium, mercury, LPAHs
WA	Duwamish Waterway; Elliott Bay; Puget Sound	Harbor Island (Lead) WAD980722839 47.344584 / -122.210792 Lead, arsenic, copper, HPAHs, LPAHs, mercury, PCBs, zinc, TBT

¹ "CERCLA site" means a facility as defined in Section 101(9) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9601(9), that is undergoing a remedial investigation and feasibility study, or for which a Record of Decision for remedial action has been issued in accordance with the National Contingency Plan, 40 C.F.R. Part 300

EPA Region 10		
<p>The CERCLA Sites and the receiving waters associated with these sites to which the requirements of Part 1.1.7 apply are listed in the table below. The areas where the permit applies are enumerated in Appendix C of the permit. Operators who discharge / intend to discharge into the receiving waters listed below must first contact the EPA Regional Office before submitting an NOI. Contact information is viewable at: https://www.epa.gov/npdes-permits/stormwater-discharges-industrial-activities-region-10.</p> <p>Similarly, if you have received notice from EPA that the facility to be covered under the MSGP is considered a potential source to a clean up site, you must first contact the Regional EPA office before submitting an NOI.</p>		
	Waterbody (HUC code/Watershed)	Superfund Sites CERCLIS ID Latitude / Longitude Major Contaminants
WA	Clam Bay; Puget Sound	Old Navy Dump/ Manchester Lab WA8680030931 47.342798 / -122.325298 PCBs, copper, lead, zinc, silver, 2,4-dimethyl-phenol, PCBs
WA	Elliott Bay; Puget Sound	Pacific Sound Resources WAD009248287 47.345639 / -122.215998 LMW PAHs, HMWPAHs, PCBs
WA	Columbia River	Upper Columbia River (T2) WASFN1002171 47.5722 / -118.5846
WA	Puget Sound	Puget Sound Naval Shipyard WA2170023418 47.333298 / -122.384999 PCBs, mercury
WA	Puget Sound	Wycoff / Eagle Harbor WAD009248295 47.371798 / -122.310012 Mercury, LPAHs, HPAHs
WA	Duwamish Waterway; Elliott Bay; Puget Sound	Lower Duwamish Waterway (T2) WA0002329803 47.321608 / -122.194040 PCBs, PAHs, phthalates, inorganics, mercury, semi-VOCs

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA)
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
MULTI-SECTOR GENERAL PERMIT (MSGP)
FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY
FACT SHEET

I. Background

Congress passed the Federal Water Pollution Control Act of 1972 (Public Law 92-500, October 18, 1972) (hereinafter, Clean Water Act or CWA), 33 U.S.C. 1251 et seq., with the objective to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." section 101(a), 33 U.S.C. 1251(a). To help achieve this objective, the CWA provides that "the discharge of any pollutant by any person shall be unlawful" except in compliance with other provisions of the statute. CWA section 301(a). 33 U.S.C. 1311(a). The CWA defines "discharge of a pollutant" to include "any addition of any pollutant to navigable waters from any point source." CWA section 502(12). 33 U.S.C. 1362(12). The U.S. Environmental Protection Agency (EPA) is authorized under CWA section 402(a) to issue a National Pollutant Discharge Elimination System (NPDES) permit for the discharge of any pollutant from a point source. 33 U.S.C. 1342(a). These NPDES permits are issued by EPA or NPDES-authorized state or tribal agencies. Since 1972, EPA and the authorized states have issued NPDES permits to thousands of dischargers, both industrial (e.g., manufacturing, energy, and mining facilities) and municipal (e.g., wastewater treatment plants). As required under Title III of the CWA, EPA has promulgated Effluent Limitations Guidelines (ELGs) and New Source Performance Standards (NSPS) for many industrial point source categories and these requirements are incorporated into NPDES permits. The Water Quality Act (WQA) of 1987 (Public Law 100-4, February 4, 1987) amended the CWA, adding CWA section 402(p), requiring implementation of a comprehensive program for addressing municipal and industrial stormwater discharges. 33 U.S.C. 1342(p).

Section 405 of the WQA of 1987 added section 402(p) of the CWA, which directed the EPA to develop a phased approach to regulate municipal and industrial stormwater discharges under the NPDES program. EPA published a final regulation on the first phase of this program on November 16, 1990, establishing permit application requirements for "stormwater discharges associated with industrial activity." See 55 FR 47990. EPA defined the term "stormwater discharge associated with industrial activity" in a comprehensive manner to cover a wide variety of facilities. See 40 CFR 122.26(b)(14). EPA is issuing the 2021 Multi-Sector General Permit (MSGP) under this statutory and regulatory authority.

The Regional Administrators of all 10 EPA Regions are issuing EPA's NPDES MSGP for stormwater discharges associated with industrial activity. The 2021 MSGP replaces the 2015 MSGP, which was issued on June 4, 2015 (80 FR 34403), and expired and was administratively continued on June 4, 2020. The 2021 MSGP is actually 50 separate general NPDES permits covering areas within an individual state, tribal land, or U.S. territory, or federal facilities. These 50 general permits contain provisions that require industrial facilities in 29 different industrial sectors to, among other things, implement control measures and develop site-specific stormwater pollution prevention plans (SWPPPs) to comply with NPDES requirements. In addition, the MSGP includes a thirtieth sector, available for EPA to permit additional industrial activities that the Agency determines require permit coverage for industrial stormwater discharges not included in the other 29 industrial sectors.

II. 2015 MSGP Litigation

After EPA issued the 2015 MSGP in June 2015, several parties, collectively referred to as "petitioners," filed petitions for review of the permit which were consolidated in the United States Court of Appeals for the Second Circuit. Petitioners included Waterkeeper Alliance, Apalachicola Riverkeeper, Galveston Baykeeper, Raritan Baykeeper, Inc. d/b/a NY/NJ Baykeeper, Snake River Waterkeeper, Ecological Rights Foundation, Our Children's Earth Foundation, Puget Soundkeeper Alliance, Lake Pend Oreille Waterkeeper, and Conservation Law Foundation. The Federal Water Quality Coalition and Federal Storm Water Association intervened in the case as respondents on August 4, 2015. Before any briefs were filed in the MSGP Litigation, the parties entered into settlement discussions under the auspices of the Second Circuit's Civil Appeals Mediation Program. A Settlement Agreement resulted from these discussions, which all parties signed on August 16,

2016. The Settlement Agreement did not affect the 2015 MSGP, but stipulated several terms that EPA agreed to address in the proposed 2020 MSGP (the Settlement Agreement can be found in the docket for the 2021 MSGP (Docket ID# EPA-HQ-OW-2019-0372)). EPA understands that the terms of the Settlement Agreement, in particular the proposed "Additional Implementation Measures" (AIM) benchmark exceedance requirements, will increase regulatory certainty for those who must comply with the permit, as intervenors expressed, while resolving petitioners' concerns that the previous corrective actions for benchmark exceedances under the 2015 MSGP were not sufficient to ensure that the permit controlled discharges as sufficient to protect water quality, as is required by the CWA. Industrial stormwater discharges are explicitly required to meet all provisions of CWA §301, including applicable water quality standards (CWA §402(p)(3)(A)). See Part 5 of this Fact Sheet for a detailed discussion of the final 2021 MSGP AIM requirements.

Below, EPA outlines how the Agency addressed the key terms from the Settlement Agreement in the proposed permit. The terms of the Settlement Agreement can be found in the Settlement Agreement in the docket for the 2021 MSGP (Docket ID# EPA-HQ-OW-2019-0372).

- The NRC Study. EPA funded a study conducted by the National Academies of Sciences, Engineering, and Medicine's (NAS) National Research Council (NRC) (NRC Study). The study committee was tasked to 1) Suggest improvements to the current MSGP benchmarking monitoring requirements; 2) Evaluate the feasibility of numeric retention standards; and 3) Identify the highest-priority industrial facilities/subsectors for consideration of additional discharge monitoring. The study was released in February 2019 and can be found at the following link: <https://www.nap.edu/catalog/25355/improving-the-epa-multi-sector-general-permit-for-industrial-stormwater-discharges>. In the Settlement Agreement, EPA agreed to consider all recommendations suggested in the NRC Study when drafting the proposed MSGP. In addition, where the completed NRC Study made recommendations regarding the sectors/subsectors, frequency, parameters, and/or parameter levels in the 2015 MSGP's benchmark monitoring provisions, EPA solicited comment on such recommendations in the proposed MSGP. See Section III below for a detailed outline and discussion of the NRC Study recommendations.
- Comparative Analysis. EPA reviewed examples of numeric and non-numeric effluent limitations (including complete prohibitions, if any) applicable to the discharge of industrial stormwater that have been set in other jurisdictions (i.e., states with NPDES permitting authority) and evaluated the bases for those limitations. EPA included this analysis in the docket for this permit on regulations.gov (Docket ID#: EPA-HQ-OW-2019-0372).
- Preventing Recontamination of Federal CERCLA Sites. EPA proposed for comment an expansion to all EPA Regions of the existing eligibility criterion regarding operators discharging to Federal Comprehensive Environmental Response, Compensation and Liability (CERCLA or Superfund) sites that currently applies to operators in Region 10 in the 2015 MSGP. See Part 1.1.7 of the proposed permit.
- Eligibility Criterion regarding Coal Tar Sealcoat. EPA proposed for comment a new eligibility condition for operators who, during their coverage under the next MSGP, seek to use coal tar sealant to initially seal or to re-seal pavement and thereby discharge polycyclic aromatic hydrocarbons ("PAHs") in stormwater. EPA proposed that those operators are not eligible for coverage under the MSGP and must either eliminate such discharge or apply for an individual permit. See Part 1.1.8 of the proposed permit.
- Permit Authorization Relating to a Pending Enforcement Action. EPA solicited comment on a provision relating to the situation where a facility not covered under the 2015 MSGP submits a Notice of Intent (NOI) for permit coverage while there is a related, pending stormwater-related enforcement action by EPA, a state, or a citizen (to include both notices of violations ("NOVs") by EPA or the State and notices of intent to bring a citizen suit). In this situation, EPA solicited

comment on “putting a hold on” the facility’s NOI for an additional 30 days to allow EPA an opportunity to (a) review the facility’s control measures expressed in its SWPPP, (b) identify any additional control measures that EPA deems necessary to control site discharges in order to ensure that discharges meet technology-based and water quality-based effluent limitations, and/or (c) to conduct further inquiry regarding the site’s eligibility for general permit coverage. See Part 1.3.3 and Table 1-2 of the proposed permit.

- Additional Implementation Measures (AIM). EPA included in the benchmark monitoring section of the proposed MSGP “Additional Implementation Measures” (AIM) required for operators responding to benchmark exceedances. EPA included proposed AIM requirements in Part 5.2 of the proposed permit.
- Part 4.2.4.1 Facilities Required to Monitor for Discharges to Impaired Waters Without an EPA-approved or Established Total Maximum Daily Load (TMDL) (previously Part 6.2.4.1 in the 2015 MSGP). EPA proposed for comment specific edits regarding monitoring for impaired waters. See Part 4.2.4.1(a) of the proposed permit.
- Revision of Industrial Stormwater Fact Sheets. EPA reviewed and proposed to revise the MSGP’s sector-specific fact sheets associated with the permit. See Appendix Q of the proposed permit.

III. The National Research Council (NRC) National Academies of Sciences (NAS) Industrial Stormwater Study

Per the 2015 MSGP Settlement Agreement, EPA agreed to fund a study conducted by the National Academies of Sciences, Engineering, and Medicine’s (NAS) National Research Council (NRC).

The study committee was tasked to 1) Suggest improvements to the current MSGP benchmarking monitoring requirements; 2) Evaluate the feasibility of numeric retention standards; and 3) Identify the highest-priority industrial facilities/subsectors for consideration of additional discharge monitoring. NAS released the study in February 2019, which can be found at the following link: <https://www.nap.edu/catalog/25355/improving-the-epa-multi-sector-general-permit-for-industrial-stormwater-discharges>.

In the Settlement Agreement, EPA agreed that, when drafting the proposed MSGP, it would consider all recommendations suggested in the completed NRC Study. In addition, where the completed NRC Study made recommendations regarding the sectors/subsectors, frequency, parameters, and/or parameter levels in the 2015 MSGP’s benchmark monitoring provisions, EPA agreed to solicit comment on such recommendations in the proposed MSGP. EPA thoroughly reviewed the NRC Study recommendations and relied on the committee’s analysis of the permit to support the proposed permit requirements originating from the Study. Because EPA funded the NRC study, EPA did not conduct additional analyses that would have duplicated any analyses found in the NRC study. In the proposed 2020 MSGP, EPA outlined how and where the Agency considered each recommendation from the NRC study. Where recommendations were related or linked to each other, EPA addressed them jointly, as described below. After considering comments received on the proposed MSGP, for the 2021 MSGP, EPA finalized several of the proposed requirements that were informed by the NRC study.

NRC Recommendations on Pollutant Monitoring Requirements and Benchmark Thresholds

1. **NRC recommendation:** EPA should require industry-wide monitoring under the MSGP for pH, total suspended solids (TSS), and chemical oxygen demand (COD) as basic indicators of the effectiveness of stormwater control measures (SCMs) employed on site.
 - **EPA Proposed MSGP:** EPA proposed to require “universal benchmark monitoring” for pH, TSS, and COD for all facilities. See Part 4.2.1 of the proposed permit and the proposed Fact Sheet.

- **EPA Final MSGP:** For the final 2021 MSGP, EPA requires certain operators to conduct “report-only” indicator analytical monitoring for three parameters - pH, TSS, and COD - quarterly for the duration of the permit. This requirement applies to all operators in the following subsectors that do not have sector-specific benchmark monitoring requirements in the 2021 MSGP: B2, C5, D2, E3, F5, I1, J3, L2, N2, O1, P1, R1, T1, U3, V1, W1, X1, Y2, Z1, AB, AC, and AD. See Part 4.2.1 of the final permit and this Fact Sheet for more information on the final MSGP provisions.
2. **NRC recommendation:** EPA should implement a process to periodically review and update sector-specific benchmark monitoring requirements that incorporates new scientific information.
- **EPA Proposed MSGP:** As part of the permitting process to propose and finalize the MSGP, EPA reviews and updates sector-specific benchmark monitoring requirements to incorporate new scientific information.

As part of the 2015 MSGP Settlement Agreement, EPA proposed to revise the MSGP’s sector-specific fact sheets associated with the permit. See Appendix Q of the proposed permit and the proposed Fact Sheet.

EPA proposed to require specific benchmark monitoring for Sectors I, P, and R. See Parts 8 and 4.2.1.1 of the proposed permit and the proposed Fact Sheet.

EPA evaluated options for developing a benchmark for polycyclic aromatic hydrocarbons (PAHs). After conducting the cost analysis for the proposed permit for three options, EPA concluded in the proposal that COD was the most cost-effective option as a surrogate for PAHs, and since COD was already being proposed under the new “universal benchmark monitoring,” no additional monitoring for PAHs was explicitly proposed. However, EPA requested comment on information and data related to specific sectors with petroleum hydrocarbon exposure that can release PAHs, any concentrations of individual PAHs and/or total PAHs at industrial sites, and the correlation of PAHs and COD. EPA indicated that it may consider additional monitoring for PAHs in the final permit if it received sufficient information to develop an appropriate benchmark threshold. For a full discussion and detailed analysis of the options and the costs, see Part 4.2.1.2 of the proposed Fact Sheet and Section E.3 of the proposed Cost Impact Analysis in the docket.

- **EPA Final MSGP:** As described above, the 2021 MSGP requires certain operators to conduct “report only” indicator analytical monitoring for three parameters - pH, TSS, and COD - quarterly for the duration of the permit. Evaluation of these data will inform future consideration of any benchmark monitoring. The 2021 MSGP also includes a new provision that requires certain operators to conduct “report-only” indicator analytical monitoring for PAHs bi-annually (twice per year) during their first and fourth years of permit coverage. This requirement applies to the following operators: operators in all sectors with stormwater discharges from paved surfaces that will be sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit; operators in sectors A (facilities that manufacture, use, or store creosote or creosote-treated wood in areas that are exposed to precipitation), C (SIC Code 2911), D, F, H, I, M, O, P (SIC Codes 4011, 4013, and 5171), Q (SIC Code 4491), R, and S. EPA plans to use the indicator monitoring data collected to conduct an initial quantitative assessment of the levels of PAHs in industrial stormwater, further identify industrial activities with the potential to discharge PAHs via stormwater, and inform future consideration of PAH benchmark monitoring for sectors with the potential to discharge PAHs via stormwater. See Part 4.2.1 of the permit and this fact sheet.

EPA is not finalizing Appendix Q in the 2021 MSGP. Instead, EPA maintains the existing industrial stormwater fact sheet series as guidance. In the 2021 MSGP, after AIM Level 2 is triggered, the Level 2 response requires the operator to generally implement additional pollution prevention/good housekeeping measures. EPA encourages facilities to consult the existing MSGP industrial stormwater fact sheet series for guidance on recommended stormwater control measures appropriate to comply with AIM Level 2. EPA plans to work with external stakeholders to thoroughly revise the sector-specific fact sheets.

3. **NRC recommendation:** EPA should update the MSGP industrial-sector classifications so that requirements for monitoring extend to nonindustrial facilities with activities similar to those currently covered under the MSGP.
 - **EPA Proposed MSGP:** Prior to the issuance of the 1995 MSGP, EPA performed an analysis of industrial sources not covered under the stormwater Phase I rule to determine whether any such industries should be covered under the 1999 stormwater Phase II rule (Report to Congress, March 1995, EPA 833-K-94-002). Ultimately, no new industrial sources were included in the stormwater Phase II rulemaking. While EPA recognizes the benefits of the recommendation to cover facilities with activities similar to those already covered by the MSGP, such an expansion would require a separate regulatory action to modify the definition of “stormwater discharges associated with industrial activity” in 40 CFR 122.26(b)(14) and is outside of the scope of this permit. Additionally, in Sector AD, the MSGP covers 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.
 - **EPA Final MSGP:** The 2021 MSGP does not cover any new industrial sources beyond those named in 40 CFR 122.26(b)(14).
4. **NRC recommendation:** Benchmarks should be based on the latest toxicity criteria designed to protect aquatic ecosystems from adverse impacts from short-term or intermittent exposures, which to date have generally been acute criteria.
 - **EPA Proposed MSGP:** EPA proposed to update the benchmark thresholds for cadmium; leave the benchmark threshold for aluminum as it was in the 2015 MSGP; remove benchmark thresholds for magnesium and iron; and requested comment on the benchmark thresholds for selenium, arsenic, and copper. See Parts 4.2.1.2 and 8 of the proposed Fact Sheet.
 - **EPA Final MSGP:** EPA modified the benchmark monitoring thresholds in the 2021 MSGP for aluminum, copper for discharges to freshwater, selenium for discharges to freshwater, and cadmium based on revised CWA section 304(a) national recommended aquatic life water quality criteria and suspended the benchmark monitoring thresholds for magnesium and iron based on lack of documented acute toxicity. The 2021 MSGP is also allowing operators who exceed the revised benchmark thresholds for discharges to freshwater for aluminum and copper to demonstrate to EPA that their discharges do not result in an exceedance of a facility-specific value calculated by the operator using the national recommended water quality criteria multi-variable models in-lieu of the applicable MSGP benchmark threshold. See Parts 4.2.2 and 8 of the permit and this fact sheet.
5. **NRC recommendations:**
 - Additional monitoring data collection on the capacity of stormwater control measures (SCMs) to reduce industrial stormwater pollutants is recommended to inform periodic reviews of the benchmark thresholds and identify sectors for which new national effluent limits could help address treatment attainability.

- Because of the paucity of rigorous industrial SCM performance data, the NRC did not recommend the development of new numeric effluent limitations (NELs) for any specific sector based on existing data, data gaps, and the likelihood of filling them.
- **EPA Proposed MSGP:** EPA acknowledges that a more complete and robust dataset is needed to establish NELs for industrial stormwater in an NPDES general permit. NELs are determined only on an industry-by-industry basis (or subsector-by-subsector) and require discharge pollutant levels corresponding to specific control measures. Many samples are needed because of the high variability (i.e., coefficients of variation) for industrial stormwater (which is much greater than for drinking water and wastewater). The benchmark monitoring data that are currently collected in the MSGP are not suitable or sufficient for determining NELs, which are reviewed and developed through the effluent guidelines planning and development process. See <https://www.epa.gov/eg/effluent-guidelines-plan>. NRC notes that the MSGP as an NPDES general permit is not the appropriate vehicle for collecting the rigorous performance monitoring data which is necessary to develop new NELs based on the capabilities of treatment technology and other on-site stormwater management practices. While EPA recognizes the importance and utility of NELs, the MSGP benchmark monitoring requirements were designed to be as least burdensome as possible for operators while still providing the intended utility: a tool to for determining whether operators could have SWPPP/stormwater control measure deficiencies. Generally, NELs are feasible only where predictably reliable treatment technologies (as opposed to standard pollution prevention SCMs other than product substitution) are employed. Where standard SCMs provide adequate water quality protection, NELs may be unnecessary. Some of the requisite components of a stormwater monitoring program that are sufficient to characterize a discharge and to accommodate the development of NELs include the following:
 - o Rainfall monitoring in the drainage area (rate and depth, at least at two locations);
 - o Flow monitoring at the discharge point (calibrated with known flow or using dye dilution methods);
 - o Flow-weighted composite sampling, with sampler modified to accommodate a wide range of rain events;
 - o Water quality sonde to obtain high-resolution and continuous measurements of such parameters as turbidity, conductivity, pH, oxidation reduction potential, dissolved oxygen (DO), and temperature (recommended);
 - o Preparation of adequate experimental design that quantifies the needed sampling effort to meet the data quality objectives (adequate numbers of samples in all rain categories and seasons); and
 - o Selection of constituents that meet monitoring objectives.

Additionally, operators cannot be compelled to collect additional detailed performance data for common SCMs under typical stormwater conditions, as this would be very complicated to do in context of a permit and possibly expensive for operators in balance with other proposed requirements.

- **EPA Final MSGP:** The 2021 MSGP does not require any additional monitoring that is specific to SCM performance data collection. As described in Part 4.2.2, existing benchmark monitoring requirements are primarily intended to provide the operator with data to determine the overall effectiveness of their stormwater control measures and to assist in determining when additional action(s) may be necessary to comply with the effluent limitations in Part 2.

NRC Recommendations on Stormwater Sampling and Data Collection

1. **NRC recommendation:** EPA should update and strengthen industrial stormwater monitoring, sampling, and analysis protocols and training to improve the quality of monitoring data.
 - **EPA Proposed MSGP:** EPA has an existing guide on industrial stormwater monitoring and sampling, which can be found at https://www3.epa.gov/npdes/pubs/msgp_monitoring_guide.pdf. The guide explains how to conduct visual and analytical monitoring of stormwater discharges and can be used by facilities required to comply with the MSGP's monitoring requirements as well as facilities subject to state-issued NPDES industrial stormwater permits. EPA indicated that the Agency may consider updating this guidance as a separate activity from the permit proposal. Although EPA recognizes the benefits of developing a new comprehensive industrial stormwater training or professional certificate program, establishing such a program would require significant time, resources, and indefinite EPA staff commitment, and is outside the scope of the permit and capabilities of EPA's industrial stormwater program at this time.
 - **EPA Final MSGP:** EPA intends to update the existing guide on industrial stormwater monitoring and sampling referenced above to be in line with the 2021 MSGP.
2. **NRC recommendation:** EPA should allow and promote the use of composite sampling for benchmark monitoring for all pollutants except those affected by storage time.
 - **EPA Proposed MSGP:** EPA proposed an explicit clarification that composite sampling is allowed for benchmark monitoring. See Part 4.1.4 of the proposed permit and the proposed Fact Sheet.
 - **EPA Final MSGP:** For the final 2021 MSGP, EPA clarifies that composite sampling for indicator monitoring and benchmark monitoring is explicitly allowed for all pollutants except in limited circumstances. See Part 4.1.4 of the final permit and this Fact Sheet.
3. **NRC recommendation:** Quarterly stormwater event samples collected over 1 year are inadequate to characterize industrial stormwater discharge or describe industrial SCM performance over the permit term.
 - **EPA Proposed MSGP:** As part of the proposed "universal benchmark monitoring" for pH, TSS, and COD for all facilities in Part 4.2.1.1 of the proposed permit, EPA proposed that facilities monitor and report for these three parameters on a quarterly basis for the entire permit term, regardless of any benchmark threshold exceedances, to ensure facilities have current indicators of the effectiveness of their stormwater control measures throughout the permit term. See Part 4.2.1.2 of the proposed permit and the proposed Fact Sheet.
 - **EPA Final MSGP:** For the final 2021 MSGP, EPA requires certain operators to conduct indicator monitoring for pH, TSS, and COD quarterly for the duration of the permit. See Part 4.2.1 of the final permit and this Fact Sheet. Additionally, for the 2021 MSGP, EPA requires that applicable operators conduct benchmark monitoring quarterly in their first and fourth years of permit coverage. The extended benchmark monitoring schedule under the 2021 MSGP will ensure that operators have current data on their industrial stormwater discharges and stormwater control measure effectiveness throughout their permit coverage and will help identify any adverse effects from modifications in facility operations and personnel over time. See Part 4.2.2.3 of the final permit and this Fact Sheet.
4. **NRC recommendation:** State adoption of national laboratory accreditation programs for the Clean Water Act with a focus on the stormwater matrix and interlaboratory calibration efforts would improve data quality and reduce error.

- **EPA Proposed MSGP:** EPA has existing guidance on laboratory procedures and quality assurance in the NPDES Compliance Inspection Manual (January 2017), which can be found at <https://www.epa.gov/sites/production/files/2017-01/documents/npdesinspect.pdf>. Because this guidance is relatively recent, EPA has no plans to further update it at this time.
 - **EPA Final MSGP:** EPA reiterates that the Agency has no current plans to further update the existing guidance referenced above.
5. **NRC recommendation:** To improve stormwater data quality while balancing the burden of monitoring, EPA should expand its tiered approach to monitoring within the MSGP, based on facility risk, complexity, and past performance.
- **EPA Proposed MSGP:** EPA proposed to have the following tiered approach to monitoring: 1) a possible “inspection-only” option in lieu of benchmark monitoring available to low-risk facilities (see Part 4.2.1.1 of the proposed permit and the proposed Fact Sheet and associated request for comment in that Part); 2) require new “universal benchmark monitoring” for pH, TSS, and COD; 3) continue existing benchmark monitoring requirements from the 2015 MSGP; and 4) require continued benchmark monitoring as part of the proposed AIM requirements for repeated benchmark exceedances. See Parts 4.2 and 5.2 in the proposed permit and the proposed Fact Sheet.
- EPA also considered an “inspection-only” option as an alternative to benchmark monitoring for low-risk facilities. EPA acknowledges the benefits of an in-person inspection and aims to provide flexibility in the permit, where appropriate. EPA requested comment on whether the permit should include an “inspection-only” option, ways to identify eligible low-risk facilities, what frequency would be appropriate for such an inspection, what the inspection should entail, and what qualifications or certifications an inspector should have. Based on the information received during the comment period for the proposed permit, the Agency indicated that it may include this option in the final permit. For a full discussion and detailed analysis of this option and the costs, see the proposed Fact Sheet Part 4.2.1.1 and Section E.5 of the proposed Cost Impact Analysis in the docket.
- **EPA Final MSGP:** After consideration of public comments, EPA is not finalizing an inspection-only option in the 2021 MSGP. EPA acknowledges the validity of the NRC Study recommendation to provide an alternative compliance option for low-risk facilities; however, the Agency does not currently have sufficient information or a fully-vetted approach to identify which facilities should be considered low-risk. EPA will continue to collect information, including “report only” indicator monitoring data for pH, TSS, and COD required in the 2021 MSGP, to support future consideration of an inspection-only option for low-risk facilities.
6. **NRC recommendation:** To improve the ability to analyze data nationally and the efficiency and capability of oversight by permitting agencies, EPA should enhance electronic data reporting and develop data management and visualization tools.
- **EPA Proposed MSGP:** EPA recognizes the benefits of improved electronic data reporting and management and continues to work on upgrading its electronic reporting systems and tools with each permit reissuance. EPA proposed that the Agency will consider implementing improved compliance reminders, checks on missing or unusual data, and the possibility of developing a data visualization tool.
 - **EPA Final MSGP:** EPA developed and implemented several new features and advancements for the NPDES eReporting Tool (NeT) for the MSGP so that many activities and communications between operators, the EPA Region, and/or the U.S. Fish and Wildlife

Service (FWS) and the National Marine Fisheries Service (NMFS) (the “Services”) that were conducted over email can now be done electronically within NeT-MSGP.

- o EPA incorporated into NeT-MSGP several “pre-NOI” activities or eligibility approvals for certain operators that were previously required to be submitted to the applicable EPA Regional Office prior to NOI submission (e.g., for new dischargers to impaired waters in Part 1.1.6.2; the endangered species criterion determination and Criterion C form in Part 1.1.4; the historic properties procedures and criterion determination in Part 1.1.5; and notification of discharges to certain CERCLA sites in Part 1.1.7). To reduce burden, for the 2021 MSGP, an operator now submits that information electronically in NeT-MSGP at the same time they submit the NOI. Where no timeline existed in the previous permit for the “pre-NOI” approvals, EPA now set a 30-day timeframe to review the information submitted by the operator, before the standard 30-day review period begins in NeT-MSGP. This process is intended to streamline all eligibility-related information so that the operator only needs to submit one NOI package and the EPA Region has a comprehensive submission to review in one place.
- o EPA also developed a user role for the Services in NeT-MSGP so that review of NOIs, review of endangered species criterion determinations, and communication with the EPA Regional Office can be occur within NeT-MSGP and be tracked with the NOI submission, rather than over emails.
- o EPA is also developing a complementary data processing feature in NeT-MSGP that will read submitted benchmark monitoring data in NetDMR to help the operator determine if sampling results indicate that an AIM triggering condition occurred during the quarter and which AIM Level may have been triggered. EPA hopes this feature will help the operator process their benchmark data in a timely manner, comply with any AIM requirements, and help EPA evaluate the impact of the new AIM requirements on benchmark exceedance data over time.

NRC Recommendations on Consideration of Retention Standards in the MSGP

1. NRC recommendations:

- a. Rigorous permitting, (pre)treatment, and monitoring requirements are needed along with careful site characterization and design to ensure groundwater protection in industrial stormwater infiltration systems.
- b. Site-specific factors and water quality-based effluent limits render national retention standards for industrial stormwater infeasible within the existing regulatory framework of the MSGP.
- c. EPA should consider incentives to encourage industrial stormwater infiltration or capture and use where appropriate.
- **EPA Proposed MSGP:** EPA acknowledges the importance of protecting groundwater during the use of stormwater infiltration systems. EPA proposed infiltration, where the operator can demonstrate to EPA that it is appropriate and feasible for site-specific conditions, as an alternative or adjunct to structural source controls and/or treatment controls required in proposed Tier 3 AIM responses. See Part 5.2.3.2.b of the proposed permit and the proposed Fact Sheet.
- **EPA Final MSGP:** The 2021 MSGP does not allow infiltration as an alternative to permanent stormwater controls required in AIM Level 3.

2. NRC recommendation: EPA should develop guidance for retention and infiltration of industrial stormwater for protection of groundwater.

- **EPA Proposed MSGP:** EPA indicated in the proposed permit that it may develop guidance for retention and infiltration of industrial stormwater after it reviews any existing state or other federal guidance as a separate activity from the permit issuance.
- **EPA Final MSGP:** If EPA does develop guidance for retention and infiltration for industrial stormwater, it will work closely with stakeholders and representatives of state water quality and underground injection control (UIC) agencies to ensure guidance is consistent with groundwater protection regulations, standards, and practices.

IV. Summary of Changes in the 2021 MSGP Compared to the 2015 MSGP

EPA proposed the MSGP for a 90-day comment period from March 2 to June 1, 2020. EPA received 195 total comment letters and 1865 unique comments. Response to comments are discussed in detail in a separate document "2021 MSGP Response to Comments" which can be found in the docket (Docket ID# EPA-HQ-OW-2019-0372).

The 2021 MSGP includes a number of new or modified requirements compared to the 2015 MSGP. The following list summarizes the most significant changes to the MSGP.

1. **Streamlining of Permit** – EPA streamlined and simplified language throughout the permit to present the requirements in a more clear and readable manner. Regarding the structure of the permit, Part 4 (Monitoring) was previously Part 6 in the 2015 MSGP; Part 5 (Corrective Actions and AIM) was previously Part 4 in the 2015 MSGP; and Part 6 (SWPPP) was previously Part 5 in the 2015 MSGP. In EPA's view, formatting the permit in this new order (Monitoring, followed by Corrective Actions and AIM, then SWPPP requirements) provides the information in a more sequential way as the latter parts often refer back to requirements in previous parts of the permit. This new structure should enhance understanding of and compliance with the permit's requirements. EPA also made additional edits to improve permit readability and clarity. EPA revised the wording of many eligibility requirements to be an affirmative expression of the requirement instead of assumed ineligibility unless a condition was met. For example, Part 1.1.6.2 reads "If you discharge to an 'impaired water' ...you must do one of the following:". In comparison, the 2015 MSGP read "If you are a new discharger or a new source...you are ineligible for coverage under this permit to discharge to an 'impaired water' ... unless you do one of the following:". EPA also numbered permit conditions that were previously in bullet form to make it easier to follow and reference the permit conditions. Finally, the language of the permit was changed from passive to active voice where appropriate (e.g., "Samples must be collected..." now reads "You must collect samples...").
2. **Public Sign of Permit Coverage** – The 2021 MSGP includes a new requirement that MSGP operators must post a sign of permit coverage (except in the instance where other laws or local ordinances prohibit such signage) at a safe, publicly accessible location in close proximity to the facility, as other NPDES permittees are required to do. This notice must include basic information about the facility (e.g., the NPDES ID number), information that informs the public on how to request the facility's Stormwater Pollution Prevention Plan (SWPPP), and how to contact the facility and EPA if stormwater pollution is observed in the stormwater discharge. See Part 1.3.5.
3. **Consideration of Stormwater Control Measure Enhancements for Major Storm Events** – The 2021 MSGP requires that operators consider implementing enhanced stormwater control measures for facilities that could be impacted by major storm events, such as hurricanes, storm surge, and flood events. EPA is not requiring operators to implement additional controls if the operator determines such controls to be unnecessary, but EPA is requiring operators to consider the benefits of selecting and designing control measures that reduce risks to their industrial facility and the potential impact of pollutants in stormwater discharges caused by major storm events. See Part 2.1.1.8.

4. **Monitoring Changes**

- **Indicator Monitoring for pH, TSS, and COD** – The 2021 MSGP includes a new provision that requires certain operators to conduct indicator analytical monitoring for three parameters - pH, Total Suspended Solids (TSS), and Chemical Oxygen Demand (COD) - quarterly for the duration of the permit. This requirement applies to all operators in the following subsectors that do not have sector-specific benchmark monitoring requirements in the 2021 MSGP: B2, C5, D2, E3, F5, I1, J3, L2, N2, O1, P1, R1, T1, U3, V1, W1, X1, Y2, Z1, AB, AC, and AD. For this permit, indicator monitoring is “report-only” and does not have a threshold or baseline value for comparison nor does it require follow-up actions under this part. The requirement in Part 2.2.1 to meet applicable water quality standards still applies. These three parameters will provide operators and EPA with a baseline and comparable understanding of industrial stormwater discharge quality, broader water quality problems, and stormwater control measure effectiveness at these facilities. See Part 4.2.1.
- **Indicator monitoring for Polycyclic Aromatic Hydrocarbons (PAHs)** – The 2021 MSGP includes a new provision that requires certain operators to conduct “report-only” indicator analytical monitoring for polycyclic aromatic hydrocarbons (PAHs) bi-annually (twice per year) during their first and fourth years of permit coverage. This requirement applies to the following operators: operators in all sectors with stormwater discharges from paved surfaces that will be sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit; operators in sectors A (facilities that manufacture, use, or store creosote or creosote-treated wood in areas that are exposed to precipitation), C (SIC Code 2911), D, F, H, I, M, O, P (SIC Codes 4011, 4013, and 5171), Q (SIC Code 4491), R, and S.

Indicator monitoring is “report-only” and does not have a benchmark threshold or baseline value for comparison nor does it require follow-up actions under Part 4.2.1.1.b. As with any pollutant monitored under the MSGP, the requirement in Part 2.2.1 to meet applicable water quality standards still applies. EPA determined that the sectors and activities listed above are likely to have industrial activities with potential petroleum hydrocarbon exposure to precipitation that could result in the discharge of PAHs in stormwater based on a review of EPA’s sector-specific fact sheets and a detailed literature review included in the docket for this permit (ID# EPA-HQ-OW-2019-0372).

PAH monitoring data will provide operators and EPA with a baseline and comparable understanding of industrial stormwater discharge quality with respect to discharges of PAHs at these facilities. EPA plans to use the indicator monitoring data collected to conduct an initial quantitative assessment of the levels of PAHs in industrial stormwater, further identify industrial activities with the potential to discharge PAHs in stormwater, and inform future consideration of potential PAH benchmark monitoring for sectors with the potential to discharge PAHs in stormwater. See Part 4.2.1.

- **Updating Benchmark Threshold Values** – EPA modified the benchmark monitoring thresholds in the 2021 MSGP for aluminum, copper for discharges to freshwater, selenium for discharges to freshwater, and cadmium based on revised current CWA section 304(a) national recommended aquatic life water quality criteria and suspended the benchmark monitoring thresholds for magnesium and iron based on lack of documented acute toxicity. The 2021 MSGP is also allowing operators who exceed the revised benchmark thresholds for discharges to freshwater for aluminum and copper to demonstrate to EPA that their discharges do not result in an exceedance of a facility-specific value calculated by the operator using the national recommended water quality criteria multi-variable models in-lieu of the applicable MSGP benchmark threshold. See Parts 4.2.2 and 8.
- **Updating the Benchmark Monitoring Schedule** –The 2021 MSGP requires that applicable operators conduct benchmark monitoring quarterly in their first and fourth years of permit

coverage. Benchmark monitoring begins in the first full quarter of permit coverage for four quarters. In the 2015 MSGP, an operator that did not exceed the four-quarter annual average for a given parameter in the first four quarters of permit coverage could discontinue benchmark monitoring for that parameter for the remainder of the permit. Under the 2021 MSGP, an operator that does not exceed the four-quarter annual average for a given parameter in the first four quarters of permit coverage can now discontinue benchmark monitoring for that parameter for the next two years (i.e., the next eight quarters).

Quarterly benchmark monitoring then resumes for all parameters for another four quarters in the fourth year of permit coverage, and if the operator does not exceed the four-quarter annual average for a given parameter, it can discontinue benchmark monitoring for that parameter for the remainder of their permit coverage. If, during either the first or fourth year of monitoring, the annual average for any parameter exceeds the benchmark threshold, the operator must comply with Part 5 (Additional Implementation Measures responses and deadlines), and continue quarterly benchmark monitoring for four quarters until results indicate that annual average for the parameter(s) is no longer exceeded. Under the new schedule, regardless of when the operator discontinued monitoring for any benchmark parameter, monitoring resumes for all parameters for four quarters in the fourth year of permit coverage, unless the permit has already expired. It is possible that an operator with continued benchmark exceedances in years 2 and 3 of permit coverage will be required to continue monitoring through their second and third years of permit coverage. In the scenario where the operator receives results in their third year of permit coverage that the benchmark threshold is no longer exceeded, the operator is still required to monitor again in their fourth year of permit coverage.

The principle underpinning this schedule is that the relief period from benchmark monitoring between the first and fourth years decreases if benchmark exceedances continue and additional monitoring is required. During this time, operators may also be conducting continued benchmark monitoring in compliance with AIM for certain parameters that have ongoing exceedances. The extended benchmark monitoring schedule under the 2021 MSGP will ensure that operators have current data on their industrial stormwater discharges and stormwater control measure effectiveness throughout their permit coverage and will help identify potential adverse effects from modifications in facility operations and/or personnel over time. See Part 4.2.2.3.

- **Impaired Waters Monitoring** – Under the 2021 MSGP, operators discharging to impaired waters without an EPA-approved or -established TMDL must complete annual monitoring for discharges of certain pollutants to impaired waters. Impaired waters monitoring begins in the first year of permit coverage, starting in the first full quarter of permit coverage. Monitoring is required for one year at each discharge point for all pollutants for which the waterbody is impaired, just as in the 2015 MSGP, after which the operator can discontinue monitoring for the next two years for any pollutant that is not detected. Annual monitoring must continue for any pollutant for which the waterbody is impaired that is detected in the discharge. Required annual monitoring then resumes in the fourth year of permit coverage for one year for those pollutants that are both causing impairments and are associated with the industrial activity and/or are a required benchmark parameter for the operator's subsector(s), including any pollutant(s) for which the operator previously discontinued monitoring. After monitoring in the fourth year of permit coverage is completed, the operator can discontinue monitoring for the duration of their permit coverage for any pollutant that is not detected. Again, annual monitoring must continue for any pollutant for which the waterbody is impaired that is detected in the discharge. For waters identified as impaired by acidity or heat, annual monitoring must continue where the measured pH or temperature exceeds the range of acceptable values assigned to the water consistent with applicable water quality standards. The extended impaired waters monitoring schedule under the 2021 MSGP will ensure that operators affirmatively determine in their first year of permit coverage that a parameter

causing an impairment is not present at the facility before narrowing the list of monitored parameters in the fourth year. The updated schedule ensures operators periodically check on their potential contributions to impairments in their industrial stormwater discharges throughout their permit coverage. See Part 4.2.5.1.

- **Additional Implementation Measures (AIM)** –The 2021 MSGP includes revisions to the Additional Implementation Measures (AIM) requirements for benchmark monitoring exceedances that were included in the proposed 2020 MSGP. EPA revised these provisions to address concerns raised in public comments. Both the proposed 2020 MSGP and this final 2021 MSGP maintain a three-level structure of advancement and responses triggered by benchmark exceedances and keep follow-up actions clear, timely, and proportional to exceedance frequency and duration. The final 2021 MSGP AIM requirements reduce costs and complexity from the proposal by creating stepwise, sequential advancement through the AIM levels with clear “resetting” to baseline status if benchmark thresholds and responses are met within the required deadlines. The other corrective action conditions, subsequent action deadlines, and documentation requirements in Part 5.1 remain the same as in the 2015 MSGP.

In Part 5.2, AIM is triggered by an exceedance of a benchmark monitoring parameter, which can occur from two “triggering events”: either an exceedance of the four-quarterly annual average for a parameter, or from fewer than four quarterly samples if a single sample or the sum of any sample results within the sampling year exceeds the benchmark threshold by more than four times for a parameter (this result indicates that an exceedance of the annual average is mathematically certain).

There are three AIM levels in the 2021 MSGP: AIM Level 1, Level 2, and Level 3. All operators subject to benchmark monitoring requirements begin in baseline status at the start of their permit coverage. An operator would progress linearly through the three AIM levels if an exceedance triggering event occurs and continues. If an exceedance triggering event occurs while in baseline status, an operator would enter AIM Level 1. If a triggering event occurs while in Level 1, an operator proceeds to AIM Level 2. If a triggering event occurs while in Level 2, an operator proceeds to AIM Level 3. The operator is required to respond with increasingly robust control measures and continued benchmark monitoring with each subsequent AIM level.

After an exceedance triggering event occurs, an operator must continue quarterly monitoring for the parameter(s) that caused the AIM triggering event at all affected discharge points, until four additional quarters of monitoring do not result in an exceedance triggering event. The deadlines for implementing AIM responses remains the same as in the proposed permit for Levels 1 and 2 (within 14 days of receipt of lab results, unless infeasible, then within 45 days). The deadline for Level 3 has been extended to allow time for scheduling and completing installation of stormwater controls (identify the schedule for installing controls within 14 days; install controls within 60 days, unless infeasible, then within 90 days). EPA may grant an extension to the deadlines for AIM Level 2 and AIM Level 3 based on an appropriate demonstration by the operator as outlined in Parts 5.2.4.2 (AIM Level 2 Deadlines) and 5.3.5.2 (AIM Level 3 Deadlines).

The following five exceptions to the AIM requirements are available for an exceedance triggering event at any AIM level: 1) natural background sources, 2) run-on, 3) a one-time abnormal event, 4) a demonstration that discharges of copper and aluminum do not result in an exceedance of facility-specific criteria using the national recommended water quality criteria in-lieu of the applicable MSGP benchmark threshold, and 5) a demonstration that the benchmark exceedance does not result in any exceedance of an applicable water quality standard. AIM requirements increase regulatory certainty while ensuring that discharges are sufficiently controlled to protect water quality. See Part 5.2.

- **Topics not finalized in the 2021 MSGP** – After considering comments received, the following topics that EPA contemplated in the proposed 2020 MSGP were not finalized in the 2021 MSGP:
 - Expanding permit eligibility requirement for discharges to a federal CERCLA site beyond EPA Region 10 (EPA has added that such facilities notify the EPA Region 10 Office a minimum of 30 days in advance of submitting the NOI form);
 - Adding an eligibility criterion regarding coal-tar sealcoat; modifying permit authorization related to a pending enforcement action;
 - Providing an inspection-only option in lieu of benchmark monitoring; requiring sector-specific benchmark monitoring for Sector I (Oil and Gas Extraction), Sector P (Land Transportation and Warehousing), and Sector R (Ship and Boat Building and Repair Yards); modifying the method for determining natural background pollutant contributions from the 2015 MSGP; and
 - including the use sector-specific stormwater control measures from Appendix Q.

V. **Geographic Coverage of this Permit**

The 2021 MSGP provides coverage for classes of point source discharges to waters of the United States in jurisdictions not covered by an approved state NPDES program. The areas of geographic coverage of the 2021 MSGP are listed in Appendix C and include the states of Idaho, Massachusetts, New Hampshire, and New Mexico, as well as all Indian country lands and federal operators in selected states. Permit coverage is also provided in Puerto Rico, the District of Columbia, and the Pacific Island territories.

Note: The expected date for the transfer of NPDES Permitting Authority to Idaho for general stormwater permits, including the EPA's MSGP, is July 1, 2021. EPA will work closely with operators in Idaho to transfer coverage at that time.

Industrial activities on Indian country lands located in Alabama, Florida, Mississippi, North Carolina, South Carolina, and Virginia, and most Indian country lands in New York were not included in the 2015 MSGP but are included in the 2021 MSGP.

VI. **Categories of Facilities That Can Be Covered Under this Permit**

The 2021 MSGP is available for stormwater discharges from the following 29 sectors of industrial activity (Sector A – Sector AC), as well as any discharge not covered under the 29 sectors (Sector AD) that has been identified by EPA as appropriate for coverage. The sector descriptions are based on Standard Industrial Classification (SIC) codes and Industrial Activity Codes consistent with the definition of “stormwater discharge associated with industrial activity” at 40 CFR 122.26(b)(14)(i-ix, xi). See Appendix D in the 2021 MSGP for specific information on each sector. The sectors are listed below:

Table VI-1 Categories of Sector That Can Be Covered Under this Permit

Sector A – Timber Products	Sector P – Land Transportation
Sector B – Paper and Allied Products Manufacturing	Sector Q – Water Transportation
Sector C – Chemical and Allied Products Manufacturing	Sector R – Ship and Boat Building or Repairing Yards

Sector D – Asphalt Paving and Roofing Materials Manufactures and Lubricant Manufacturers	Sector S – Air Transportation Facilities
Sector E – Glass, Clay, Cement, Concrete, and Gypsum Product Manufacturing	Sector T – Treatment Works
Sector F – Primary Metals	Sector U – Food and Kindred Products
Sector G – Metal Mining (Ore Mining and Dressing)	Sector V – Textile Mills, Apparel, and other Fabric Products Manufacturing
Sector H – Coal Mines and Coal Mining-Related Facilities	Sector W – Furniture and Fixtures
Sector I – Oil and Gas Extraction	Sector X – Printing and Publishing
Sector J – Mineral Mining and Dressing	Sector Y – Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries
Sector K – Hazardous Waste Treatment Storage or Disposal	Sector Z – Leather Tanning and Finishing
Sector L – Landfills and Land Application Sites	Sector AA – Fabricated Metal Products
Sector M – Automobile Salvage Yards	Sector AB – Transportation Equipment, Industrial or Commercial Machinery
Sector N – Scrap Recycling Facilities	Sector AC – Electronic, Electrical, Photographic and Optical Goods
Sector O – Steam Electric Generating Facilities	Sector AD – Reserved for Facilities Not Covered Under Other Sectors and Designated by the Director

VII. Permit Requirements

Part 1 How to Obtain Coverage Under the 2021 MSGP

Part 1.1 Eligibility Conditions

As with previous permits, to be eligible for coverage under the 2021 MSGP, operators of industrial facilities must meet the eligibility provisions described in Part 1.1 of the permit. If they do not meet all the eligibility requirements, operators may not submit a Notice of Intent (NOI) to be covered by the MSGP, and, unless they obtained coverage for those discharges under another permit, those discharges of stormwater associated with industrial activity needing permit coverage will be in violation of the CWA.

Part 1.1.1 Location of Your Facility

This Part specifies that in order to be eligible for permit coverage, the facility must be located in a jurisdiction where EPA is the permitting authority and where coverage under this permit is available (see Appendix C). The permit also specifies that this condition also applies in the limited circumstances where your facility is located in a jurisdiction where EPA

is not the permitting authority but your discharge point location is to a water of the United States where EPA is the permitting authority.

Part 1.1.2 Your Discharges Are Associated with Industrial Activity

This Part specifies that eligible facilities must have an authorized stormwater discharge or an authorized non-stormwater discharge per Part 1.2 associated with industrial activity from the primary industrial activity (as defined in Appendix A and as listed in Appendix D), or have been notified by EPA that they are eligible for coverage under Sector AD.

Part 1.1.3 Limitations on Coverage

This Part describes the limitations on what is covered under this permit. Any discharges not expressly authorized under the 2021 MSGP cannot become authorized or shielded from liability under CWA Section 402(k) by disclosure to EPA, state, or local authorities after issuance of the MSGP via any means, including the NOI to be covered by the permit, the SWPPP, or during an inspection. This is consistent with EPA's long-standing interpretation of the scope of the MSGP.

Part 1.1.3 used to be Part 1.1.4 in the 2015 MSGP. In the 2021 MSGP, EPA focused the "limitations on coverage" section to specific discharges not authorized by the permit. Other eligibility requirements that were previously listed under "limitations on coverage" are now organized under their own headers so it is clearer to the reader what conditions need to be met in order to obtain eligibility. EPA modified the wording of some conditions previously in the 2015 MSGP from the negative to the positive (e.g., instead of using "you are ineligible unless..." EPA changed the phrasing of the condition to "to be eligible, you must..."). EPA hopes this will clarify the eligibility conditions of the permit.

Part 1.1.3.1 Discharges Mixed with Non-Stormwater

The MSGP does not authorize stormwater discharges that are mixed with non-stormwater discharges, other than those mixed with authorized non-stormwater discharges listed in Part 1.2.2 and/or those mixed with a discharge authorized by a different NPDES permit and/or a discharge that does not require NPDES authorization. Where a regulated stormwater discharge is commingled with non-stormwater that is not authorized by the MSGP, the operator must obtain authorization under another NPDES permit to discharge the commingled discharge.

Part 1.1.3.2 Stormwater Discharges Associated with Construction Activity

The 2021 MSGP does not apply to stormwater discharges associated with construction activity, defined in 40 CFR 122.26(b)(14)(x) and (b)(15), which acknowledges the distinction between construction and other types of stormwater discharges associated with industrial activity. An exception to this is for construction associated with mining activities, where operators in Sectors G, H and J are able to cover earth-disturbing activities in the MSGP in lieu of obtaining separate coverage under the Construction General Permit (CGP) (EPA included the salient earth disturbance-related requirements for the mining sectors in Part 8). However, for mining-related construction that disturbs less than one acre in size, such discharges are covered by the regular MSGP (i.e., the requirements that are not expressly for earth-disturbances). The mining-related construction exception provides a more streamlined approach for mining operators preferring to be covered by one permit, instead of two.

Part 1.1.3.3 Discharges Already Covered by Another Permit

This provision describes cases where an operator is ineligible for coverage under the MSGP because their industrial stormwater discharges are covered under another NPDES permit. The objective is to avoid conflict with the anti-backsliding provisions of the CWA. The cases this applies to include operators currently covered under an individual NPDES permit or an alternative NPDES general permit; discharges covered by an individual NPDES permit or alternative NPDES general permit within the past five years prior to the effective date of the 2021 MSGP, which established site-specific numeric water quality-based effluent limitations developed for the stormwater component of the discharge; or discharges from facilities where any NPDES permit has been or is in the process of being denied, terminated (permit termination does not refer to the routine expiration and reissuance of NPDES permits every five years), or revoked by EPA.

Part 1.1.3.4 Stormwater Discharges Subject to Effluent Limitations Guidelines

This section specifies that only the discharges from facilities subject to the stormwater-specific effluent limitations guidelines in Table 1-1 of the permit are eligible for coverage under this permit. All other stormwater and non-stormwater discharges subject to effluent limitations guidelines must be covered under any applicable alternate NPDES general permit or an individual NPDES permit.

Part 1.1.4 Eligibility related to Endangered Species Act (ESA) Listed Species and Critical Habitat Protection

The Endangered Species Act (ESA) of 1973 requires all Federal Agencies to ensure, in consultation with the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) (the "Services"), that any federal action carried out by the Agency is not likely to jeopardize the continued existence of any species that is federally-listed as endangered or threatened ("listed"), or result in the adverse modification or destruction of habitat of such species determined to be critical habitat. See 16 U.S.C. 1536(a)(2), 50 CFR 402 and 40 CFR 122.49(c).

EPA developed the requirements of Part 1.1.4 in consultation with the Services to ensure that discharges covered under the permit are protective of listed species and their critical habitats. The criteria in Appendix E require the operator to determine that their facility's stormwater discharges, authorized non-stormwater discharges, and stormwater discharge-related activities were either the subject of a separate ESA consultation or an ESA Section 10 permit, or are not likely to adversely affect any listed species or critical habitat under the ESA. To make this determination for the 2021 MSGP, operators must follow the questions outlined in ESA worksheet section of the NOI in EPA's NPDES eReporting Tool for the MSGP (NeT-MSGP), based on the steps in Appendix E. New to the 2021 MSGP, operators can determine their ESA eligible criterion in NeT-MSGP at the same time they prepare their NOI.

For the 2021 MSGP, EPA moved the list of detailed ESA criteria only in Appendix E of the permit and removed the criteria list from the permit text and fact sheet. EPA is concerned that operators may just read the list of criteria in the permit and try to determine just from that list which applies to their facility. Directing operators to the "smart" ESA worksheet section in the NOI in EPA's NeT-MSGP based on Appendix E ensures that operators read the important instructions and procedures for how they should determine their ESA eligibility criterion.

EPA made some revisions to the criteria in Appendix E to better ensure that the criteria are adequately protective of listed species and their critical habitats and to improve clarity of the eligibility process. The changes are summarized below.

- **Criterion A (No ESA-listed species and/or critical habitat present in action area)** – No significant changes to the criterion. Details were added on the appropriate basis statement supporting the selection of the criterion.
- **Criterion B (Eligibility requirements met by another operator under the 2021 MSGP)** – No significant changes to the criterion. Details were added on the appropriate basis statement supporting the selection of the criterion.
- **Criterion C (ESA-listed species and/or designated critical habitat likely to occur, but discharges not likely to adversely affect them)** – Criterion C is now broken into three sub-criterion depending on whether the operator was eligible under Criterion C in the previous permit. EPA added two additional scenarios under which Criterion C could apply to streamline the process for existing operators:
 1. **Criterion C1:** Allows the eligibility of a facility that was previously covered under the 2015 MSGP under Criterion C as long as there have been no changes to the action area and no additional ESA-listed species or designated critical habitat within the action area since the operator submitted the certification under the 2015 MSGP. Operators that are eligible under C1 do not have to resubmit a Criterion C form, but must provide in the NOI in NeT-MSGP the USFWS and/or NMFS resources consulted that helped the operator determine that no additional species and/or critical habitat have been listed by the Services in the action area;
 2. **Criterion C2:** Allows the eligibility of a facility that was previously covered under the 2015 MSGP under Criterion C and there have been changes to the action area and/or additional ESA-listed species or designated critical habitat listed since the operator submitted certification under the 2015 MSGP. Operators that are eligible under C2 do not have to resubmit a Criterion C form, but are required to provide in the NOI in NeT-MSGP a description of the changes to the action area and/or the ESA-listed species or critical habitat. NOIs for operators that certify under C2 will be held for review for 30-days prior to the standard 30-day review period for all NOIs, as with the previous Criterion C eligibility process under the 2015 MSGP.
 3. **Criterion C3:** The permit retains the scenario previously included in the 2015 MSGP to allow a facility without previous MSGP coverage to certify eligibility under criterion C of the 2021 MSGP if it has ESA-listed species or designated critical habitat in the action area. Operators that are eligible under C3 must follow the questions outlined in Criterion C portion of the NOI in NeT-MSGP, based on the steps in Appendix E. New to the 2021 MSGP, operators can prepare and submit their Criterion C form in NeT-MSGP at the same time they prepare their NOI. NOIs for operators that certify under C3 will be held for review for 30-days prior to the standard 30-day review period for all NOIs, as with the previous Criterion C eligibility process under the 2015 MSGP. This change was made so that operators do not need to submit this information to EPA ahead of NOI submission and can send all necessary information to EPA at one time.

The 2021 MSGP also includes minor updates to Criteria C Form Section V “Evaluation of Discharge Effects.” EPA added “stormwater discharges may adversely affect the immediate vicinity of the discharge point through streambank erosion and scour” to Hydrological Effects. EPA added “due to exposures to multiple stressors at the same time” to the description of Toxicity of Pollutants. EPA also added “I comply with the applicable

monitoring requirements and have not had any exceedances” to Criteria C Eligibility Form Section V.B.

- **Criterion D (ESA Section 7 consultation has successfully concluded)** - EPA eliminated the option that consultation resulted in a biological opinion that concludes that the action is likely to jeopardize listed species or to result in the destruction or adverse modification of critical habitat, and any recommended reasonable and prudent alternatives or reasonable and prudent measures are being implemented. Details were added on the appropriate basis statement supporting the selection of the criterion.
- **Criterion E (Issuance of ESA Section 10 permit)** - no significant changes to the criterion. Details were added on the appropriate basis statement supporting the selection of the criterion.

Part 1.1.5 Eligibility Related to National Historic Preservation Act (NHPA)-Protected Properties

Coverage under the 2021 MSGP is available only if operators certify that they meet one of the eligibility criteria related to compliance with historic properties protection pursuant to the National Historic Preservation Act (NHPA). These criteria are used to identify whether land disturbances associated with the installation or revision of subsurface stormwater control measures would affect properties listed in, or eligible for listing in, the National Register of Historic Properties; and, if so, to determine the measures that will prevent or mitigate adverse effects to the properties.

EPA does not anticipate any effects on historic properties from the pollutants in the stormwater discharges covered by the 2021 MSGP. However, existing and new operators could undertake activities in connection with the 2021 MSGP that might affect historic properties if they install new or modify stormwater control measures that involve subsurface disturbance. The overwhelming majority of sources covered under the 2021 MSGP will be operators that are seeking renewal of previous permit coverage. If these existing dischargers are not planning to construct new stormwater controls or conveyance systems, they have already addressed NHPA issues. In the 2015 MSGP, operators were required to certify that they were either not affecting historic properties or they had obtained written agreement from the applicable State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO), or other tribal representative regarding methods of mitigating potential impacts. EPA is not aware of any adverse effects on historic properties under the 2015 MSGP, nor the need for a written agreement with a SHPO or THPO. Therefore, to the extent the 2021 MSGP authorizes renewal of prior coverage without relevant changes in operation, it has no potential to affect historic properties.

Where operators install or modify control measures that involve subsurface disturbance, the area of potential effect (APE) for the activities performed to comply with the permit, for historic preservation purposes, is limited to the location and depth of the earth disturbance associated with the installation or modification of the stormwater control measures. Operators need only consider the APE when doing the historic properties screening procedures to determine their eligibility criteria in Appendix F. This is the only scenario where activities authorized or undertaken in connection with the 2021 MSGP may affect historic properties. Since both new and existing dischargers could undertake such activities, all operators are required to follow the historic property screening procedures to document eligibility. Historic preservation requirements are unchanged from 2015, however, new to the 2021 MSGP, operators must follow the questions outlined in the historic properties worksheet section of the NOI in NeT-MSGP, based on the steps in Appendix F. Operators can prepare and submit their historic properties criterion selection in NeT-MSGP at the same time they prepare their NOI.

Part 1.1.6 Eligibility for “New Dischargers” and “New Sources”¹ (as defined in Appendix A) ONLY:**Part 1.1.6.1 Eligibility for “New Dischargers” and “New Sources” Based on Water Quality Standards**

This provision describes permit eligibility for operators of facilities classified as new sources and/or new dischargers (as defined in Appendix A), pursuant to 40 CFR 122.4(i). Facilities classified as “new source” or “new discharger” are not eligible for coverage under the MSGP for any discharges that EPA determines will not be controlled as necessary such that the receiving water of the United States will not meet an applicable water quality standard. EPA may notify such operators that an individual permit application is necessary in accordance with Part 1.3.8, or, alternatively, EPA may authorize coverage under the MSGP after the operators have implemented measures designed to ensure the discharge is controlled as necessary such that the receiving water of the United States will meet water quality standards. EPA notes that while Part 1.1.6.1 is designed to specifically implement 40 CFR 122.4(i), other water quality-based requirements apply to new and existing dischargers. Part 2.2 of the permit includes water quality-based effluent limits applicable to all dischargers, which are designed to ensure that discharges from both new and existing operators are controlled as necessary to meet water quality standards in receiving waters of the United States.

Part 1.1.6.2 Eligibility for “New Dischargers” and “New Sources” for Water Quality-Impaired Waters

Part 1.1.6.2 of the permit requires any new source or new discharger to demonstrate its ability to comply with 40 CFR 122.4(i) (i.e., prohibiting the issuance of permits to new sources and new dischargers that will not be controlled as necessary such that the receiving water of the United States will not meet water quality standards) prior to coverage under the permit. To satisfy the requirements of 40 CFR 122.4(i), an operator must complete one of the following: (a) prevent all exposure to stormwater of the pollutant(s) for which the waterbody is impaired, and retain documentation with the SWPPP on how this was accomplished; (b) submit technical information or other documentation to the applicable EPA Regional Office via NeT-MSGP at the same time the operator prepares and submits the NOI to support a claim that the pollutant(s) for which the waterbody is impaired is not present at the site; or (c) submit data or other technical documentation to the applicable EPA Regional Office via NeT-MSGP at the same time the operator prepares and submits the NOI to support a conclusion that the discharge will be controlled as necessary such that the receiving water of the United States will meet applicable water quality standards. For discharges to waters without a TMDL, the information must demonstrate that the discharge of the pollutant for which the water is impaired will meet water quality standards at the point of discharge to the water of the United States. For discharges to waters with a TMDL, the information must demonstrate that there are sufficient remaining wasteload allocations

¹ “New Discharger” means a facility from which there is or may be a discharge, that did not commence the discharge of pollutants at a particular site prior to August 13, 1979, which is not a new source, and which has never received a finally effective NPDES permit for discharges at that site. See 40 CFR 122.2.

“New Source” means any building, structure, facility, or installation from which there is or may be a “discharge of pollutants,” the construction of which commenced: i) after promulgation of standards of performance under section 306 of the CWA which are applicable to such source, or ii) after proposal of standards of performance in accordance with section 306 of the CWA which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal. See 40 CFR 122.2.

in the TMDL to allow the discharge and that existing dischargers to the waterbody are subject to compliance schedules designed to bring the waterbody into attainment with water quality standards (e.g., a reserve allocation for future growth). In order to be eligible under Part 1.1.6.2.c, the operator must receive a determination from the applicable EPA Regional Office that the discharge will be controlled as necessary such that the receiving water of the United States will meet applicable water quality standards. If the operator's NOI contains information to satisfy either (b) or (c) above, the NOI will be held for review for 30 days, prior to the standard 30-day review period for all NOIs. This change was made so that operators do not need to submit this information to the EPA Regional Office ahead of NOI submission and can send all necessary information to EPA at one time.

Part 1.1.6.3 Eligibility for "New Dischargers" and "New Sources" for Waters with High Water Quality

Part 1.1.6.3 includes the eligibility requirements for new dischargers or new sources discharging to a Tier 2, 2.5, or 3 water. Operators discharging to Tier 2 or Tier 2.5 waters must not lower the water quality of the water. Coverage under the permit is not available to new dischargers or new sources who discharge to a state- or tribe-designated Tier 3 water (outstanding national resource waters, or "ONRW") for antidegradation purposes. Any such discharges must apply for coverage under an individual permit.

The need for such a provision is that state/tribal water quality standards must include an antidegradation policy. In addition, each state/tribe must identify implementation methods for their policy that, at a minimum, provide a level of protection that is consistent with the three-tiered approach of the federal antidegradation regulation. Tier 3 maintains and protects water quality in ONRWs. Waters classified as ONRWs by states and tribes are generally the highest quality waters of the United States. However, the ONRW classification also offers special protection for waters of exceptional ecological significance (i.e., those that are important, unique, or sensitive ecologically, but do not necessarily have high water quality). Except for certain temporary changes, water quality cannot be lowered in such waters. 40 CFR 131.12(a)(3). Because of their high quality or ecological significance, EPA expects few industrial stormwater discharges into ONRWs will be covered under an NPDES permit. See list of Tier 2, Tier 2.5 and Tier 3 waters in Appendix L.

Part 1.1.7 Eligibility for Stormwater Discharges to Federal CERCLA Sites²

In the 2021 MSGP, facilities in EPA Region 10 and Indian country that discharge stormwater to certain specified sites that have undergone or are undergoing remedial cleanup actions pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund) are required to notify the EPA Region 10 Office in the NOI via NeT-MSGP. If the operator's NOI contains information regarding their eligibility with respect to discharges to a CERCLA site, the NOI will be held for review for 30 days, prior to the standard 30-day review period for all NOIs. This change was made so that operators do not need to submit this information to the EPA Region 10 Office ahead of NOI submission and

² References:

Burton, G.A. and Pitt, R.E. (2002) Stormwater Effects Handbook. A Tool for Watershed Managers, Scientists and Engineers. Lewis Publishers, CRC Press, Boca Raton.

Burton, G. A. and R. E. Pitt. 2002. Chapter 5: Sampling effort and collection methods. Pp. 224-338 in Stormwater effects handbook: A toolbox for watershed managers, scientists, and engineers, G. A. Burton and R. E. Pitt, eds. Boca Raton, FL: Lewis Publishers.

Chiou, C.T., and Kile, D.E., 2000, Contaminant sorption by soil and bed sediment--Is there a difference?: U.S. Geological Survey Fact Sheet 087-00, 4 p.

can send all necessary information to EPA at one time. EPA evaluated 2015 MSGP NOI data and found that only 12 facilities in Region 10 have been subject to this requirement in the current permit. All facilities were able to get coverage under the MSGP, and only one facility was required to do additional monitoring.

Just as in the 2015 MSGP, in the 2021 MSGP a facility is considered to discharge to a federal CERCLA Site if the discharge flows directly into the site through its own conveyance, or a through a conveyance owned by others, such as a municipal separate storm sewer system. This does not include discharges to a tributary that flows into a CERCLA Site. "CERCLA Site" means a facility as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9), that is undergoing a remedial investigation and feasibility study, or for which a Record of Decision for remedial action has been issued in accordance with the National Contingency Plan at 40 CFR 300. This definition includes sites that have been listed on the National Priorities List in accordance with Section 105 of CERCLA, 42 U.S.C. §9605, or that are being addressed using CERCLA authority, including use of an agreement consistent with the Superfund Alternative Approach Guidance. The federal CERCLA sites to which this provision currently applies are listed in Appendix P.

To determine eligibility for coverage under this Part, the EPA Region 10 Office may evaluate whether the discharger has in place sufficient controls and implementation procedures (e.g., enhanced controls, corrective actions, monitoring requirements, and/or numeric benchmarks or effluent limits) designed to ensure that the discharge will not interfere with achieving the cleanup goals or lead to recontamination of sediments or aquatic media being remediated under CERCLA, such that it causes or contributes to an exceedance of a water quality standard. Such discharges can undo cleanups accomplished and can result in new or continuing impairments of designated uses of the receiving waters. In addition, EPA and potentially responsible parties performing cleanups cannot obtain cost recovery for responding to releases of hazardous substances resulting from federally-permitted discharges that are operating in compliance, so the permitting of industrial stormwater to CERCLA sites creates a barrier to cost recovery.

If following authorization to discharge under the 2021 MSGP, it is determined that a facility discharges stormwater to a CERCLA Site listed in Appendix P, the facility must notify the EPA Region 10 Office. Upon notification, the EPA Region 10 may impose additional monitoring requirements, controls, or other actions to prevent recontamination of the CERCLA Site such that it meets all applicable water quality standard. In order to become eligible, the facility must confirm in writing that it agrees to implement the additional requirements. There are a variety of scenarios under which an MSGP-permitted facility could subsequently determine that it is discharging to an Appendix P CERCLA Site. For example, the facility could become aware of new information regarding the location of its stormwater discharge point or the fate of the stormwater it discharges into a municipal stormwater system. Or the facility could be notified of the fact that it is discharging to an Appendix P CERCLA Site by a potentially responsible party, EPA, or another government agency.

NPDES-permitted stormwater discharges may occur within the bounds of sites that have been remediated or are undergoing remediation under CERCLA. Source sampling and sediment data from some NPDES discharge points have indicated exceedances of sediment cleanup goals established for CERCLA Sites. NPDES permits, particularly general permits, may not control discharges sufficiently to avoid sediment recontamination because effluent limits are written to protect the aquatic ecosystem rather than to prevent sediment impacts or contamination. As a result, after extensive and costly clean-up of federal CERCLA Sites, it is possible that these sites can be recontaminated by NPDES

discharges, and cost recovery would not be available where the contamination comes from a federally-permitted release

Contaminated water and sediment can impair the designated uses of a waterbody, which are included in state/tribal water quality standards. Large quantities of soils and sediments can be "sinks" for contaminants because of their ability to pick up large amounts of a wide variety of contaminants (sorption). Sorption to soils and sediments may be the most influential factor on the transport and fate of organic contaminants in the environment (Chiou and Kile, 2000). Suspended sediment can be a major carrier of nutrients and metals (Schueler, 1997).

Aquatic organisms can be exposed to contaminants through their contact with both water and sediment, and also through ingestion of food, according to The Stormwater Effects Handbook (Burton and Pitt, 2002). Inorganic and organic chemicals can accumulate in organisms at chronic levels that cause toxicity or death. Sediment-associated contaminants are one of the most common sources of tissue contamination. Such contamination is linked to impacts to other biota higher in the food chain via the "food web transfer," an effect especially quantifiable with mercury and some organochlorines such as PCBs and DDT. This occurs in both freshwater and marine systems and is not limited to the aquatic environment, as it has been observed in terrestrial species, especially birds (Burton and Pitt, 2002).

Non-benthic organisms can also ingest contaminated sediment directly when the sediment at rest at the bottom of a waterbody is mobilized. Superfund sites generally seek to reduce risk to humans and other aquatic and terrestrial receptors from eating the fish and other aquatic organisms contaminated by pollutants and/or being directly exposed to contaminated water and sediment, which could cause adverse effects to their health and mortality.

Given the above concerns and to avoid potential contamination/recontamination of the sites and potential subsequent exceedances of water quality standards, the 2021 MSGP describes the process that facilities discharging to a CERCLA Site in EPA Region 10 and identified in Appendix P are required to follow to obtain or maintain permit coverage. The process remains unchanged from the 2015 MSGP and provides an opportunity for the facility and/or EPA to identify or develop the control measures that prevent contamination/recontamination. Once these measures are in place, the facility should be able to obtain MSGP coverage (or, if coverage was obtained prior to the commencement of the CERCLA remediation or determination of an applicable discharge, to continue operating under the MGSP). Alternatively, the facility or EPA Region 10 may determine that coverage under the MSGP is not appropriate, and individual permit coverage may be sought or required per Part 1.3.8 of the permit. See 40 CFR 122.28(b)(3).

As noted above, this eligibility criterion is only applicable to MSGP facilities in EPA Region 10 states and Indian Country. EPA has extensive information that stormwater discharges are a source of CERCLA Site recontamination in Region 10. EPA Region 10 has seen both the actual recontamination of Superfund Sites from stormwater discharge points and the potential for recontamination from source control information gathered at Superfund Sites not yet cleaned up. Recontamination (exceedances of sediment cleanup standards) has occurred at the Thea Foss Waterway in Tacoma, Washington, which is within the Commencement Bay/Nearshore Tidelands Superfund Site and was cleaned up in 2006. It is known that the source of the recontamination is stormwater from two 96-inch municipal storm drains that drain approximately 5,000 acres of commercial/residential property, state highways, and city roads. Source control information gathered at the Lower Duwamish

Waterway Superfund Site and the Portland Harbor Superfund Site indicate there are facilities discharging stormwater containing suspended solids with PAHs, polychlorinated biphenyls (PCBs), and metals that exceed the preliminary remedial goals for sediment at those sites. Stormwater discharging from the municipal stormwater discharge points at the Thea Foss Waterway are covered by a Washington MS4 permit and have been since 1995. Many of the facilities discharging stormwater to the Lower Duwamish and Portland Harbor sites are covered by Washington and Oregon industrial stormwater general or MS4 permits. See EPA's 2015 MSGP docket for more information about CERCLA contamination/recontamination in Region 10 from permitted stormwater discharges (Docket ID: EPA-HQ-OW-2012-0803, <https://www.regulations.gov/docket?D=EPA-HQ-OW-2012-0803>). EPA's Region 10 Office also has expertise in determining site-specific measures that are necessary to ensure industrial stormwater discharges covered under the MSGP are not leading to recontamination of aquatic media at CERCLA Sites such that they meet all applicable water quality standard.

To identify which CERCLA Sites in EPA Region 10 this Part applies in the 2015 MSGP, EPA started with the Tier 1 and 2 sediment sites, then overlaid them with areas of federal CWA authority in Region 10. The sediment site tiering system is based on national EPA Office of Solid Waste and Emergency Response (OSWER) guidance on managing sediment cleanups, which establishes the tiering system for sediment sites that will have enhanced input and oversight by EPA. These sites contain a large amount of contaminated sediment, are expensive to remediate, and often impact significant numbers of humans and other ecological receptors. Tier 1 sediment sites are the largest contaminated sediment sites the CERCLA program is addressing. The Tier 2 sediment sites are in the evaluation process and are anticipated to meet the Tier 1 site criteria. The size of these sites makes it more likely that there will be multiple sources of contamination, including NPDES permitted discharge points. EPA Region 10 is actively engaged in the clean-up process at these sites and believes that when cleanup efforts are complete, these sites could have a higher probability of recontamination from NPDES permitted discharge points.

Part 1.2 Types of Discharges Authorized Under the MSGP

Part 1.2.1 Authorized Stormwater Discharges

This Part specifies which stormwater discharges are eligible for coverage under the permit. As described in Part 1.1.3 of this Fact Sheet, not all stormwater discharges associated with industrial activity are eligible for coverage under the 2021 MSGP (e.g., stormwater discharges regulated by certain national effluent limitations guidelines). Dischargers must refer to this Part of the permit to determine whether a particular stormwater discharge from their site can be covered under the MSGP. For example, Part 1.2.1.3 specifies that discharges that are not otherwise required to obtain NPDES permit authorization, but are mixed with discharges that are authorized under the 2021 MSGP, are eligible for coverage under the 2021 MSGP.

Part 1.2.1 used to be Part 1.1.2 in the 2015 MSGP. EPA moved this part out of the "eligibility conditions" section and created a new section in the permit specifically for types of discharges authorized (and not authorized) under the permit, still referenced in the eligibility conditions section. EPA hopes this will streamline the eligibility conditions section of the permit.

Part 1.2.2 Authorized Non-Stormwater Discharges

This Part lists the non-stormwater discharges authorized under the permit, specifically those non-stormwater discharges authorized for all sectors, for Sector A for spray water, and for

Sectors G, H, and J for earth-disturbing activities conducted prior to active mining activities. A change from the 2015 MSGP is a requirement that non-stormwater discharges from external building washdown/power wash water must be treated with appropriate control measures to minimize discharges of mobilized solids and other pollutants. This is similar to an existing requirement applicable to non-stormwater discharges of pavement wash waters. EPA encourages that other control measures be considered when doing such cleaning including using the least amount of water in pressure washing to reduce the quantity of discharge and running the wash water through a filter to remove pollutants prior to discharge. Other options are to direct the wash water flow through a green infrastructure feature(s) (or some similar treatment), or to capture and infiltrate the flow so there is no discharge. EPA reminds operators using green infrastructure features that proper operation and maintenance of the features is vital. In any case, if there are doubts regarding the presence of contaminants in the wash water, even after treatment, operators should not discharge it to be safe.

Previous MSGP versions authorized any pavement and building wash water to be discharged as long as there were no detergents or toxic/hazardous spill material present in the discharge. But cleaning agents other than detergents could also be utilized and could clearly have the potential to cause water quality issues if discharged. Therefore, in the 2021 MSGP EPA retains the 2015 MSGP provision that in addition to detergents, hazardous cleaning products are specifically prohibited from being discharged under the permit. EPA is also retaining the 2015 MSGP provision that prohibits the discharge of wash waters that have come into contact with oil and grease deposits, sources of pollutants associated with industrial activities, or any other toxic or hazardous materials, unless the residues have been cleaned up using dry clean-up methods. Additionally, because the act of washing (especially power washing) mobilizes particulates and other substances present on pavement, specific effluent limits have been newly included to ensure such mobilized particulates are controlled before they are discharged.

Part 1.3 Obtaining Authorization to Discharge

This Part specifies conditions that the operator must meet in order to obtain authorization under the 2021 MSGP.

Part 1.3.1 Prepare Your Stormwater Pollution Prevention Plan (SWPPP) Prior to Submitting Your Notice of Intent (NOI)

This Part requires that the operator develop or update the SWPPP prior to submitting the NOI for permit coverage. The operator must make the SWPPP publicly available by either attaching it to your NOI, including a URL in your NOI, or providing additional information from the SWPPP on the NOI, per Part 6.4.

Part 1.3.2 How to Submit Your NOI to Get Permit Coverage

This Part specifies that to be covered (i.e., authorized to discharge) under the 2021 MSGP, the operator must use NeT-MSGP to electronically prepare and submit to EPA a complete and accurate NOI by the deadlines listed in Table 1-2. Table 1-2 also provides the discharge authorization date for each category of facility.

Part 1.3.3 Deadlines for Submitting Your NOI and Your Official Date of Permit Coverage

This Part and Table 1-2 provide the deadlines for submitting NOIs for permit coverage and the minimum timeframes following NOI submission for discharge authorization for the different discharge categories. All NOI submittals are subject to a 30-day review period. EPA

may use the waiting period to determine whether any additional measures are necessary to meet applicable water quality standards, to be consistent with an applicable WLA, or to comply with state or tribal antidegradation requirements. Additionally, during this waiting period, the Fish and Wildlife Service or the National Marine Fisheries Service, or the SHPO or THPO or other tribal representative, may request EPA place a hold on an NOI authorization based on concerns about listed species, critical habitat, and/or historic properties. Depending on the nature of the issue, EPA may require appropriate action either prior to or following discharge authorization. EPA may decide a delay in authorization is warranted, or that the discharge is not eligible for authorization under the 2021 MSGP, in which case an individual NPDES permit would be required.

Part 1.3.4 Modifying your NOI

This Part specifies that after submitting an NOI, if an operator needs to correct or update any fields, it may do so by submitting a "Change NOI" form using NeT-MSGP. Per Part 7.1, the operator must submit your Change NOI electronically via NeT-MSGP, unless the applicable EPA Regional Office grants a waiver from electronic reporting, in which case the operator may use the suggested format for the paper Change NOI form. When there is a change to the facility's operator, the new operator must submit a new NOI, and the previous operator must submit a Notice of Termination (NOT) form as specified in Part 1.4. In response to operator requests, EPA added a clarification of the timelines for updating the NOI when site conditions or operators change.

Part 1.3.5 Requirement to Post a Sign of your Permit Coverage

This Part requires operators to provide a sign or other notice of permit coverage at a safe, publicly accessible location in close proximity to the facility, as is required of other NPDES permittees, except in the instance where other laws or local ordinances prohibit such signage. If posting a sign is not allowed by the local jurisdiction or otherwise, the operator must document in the SWPPP a brief explanation for why it cannot post the sign and a reference to the law or ordinance. By providing notice of permit coverage and other information about the facility, interested parties are better informed and educated on how to obtain the SWPPP and how to contact the facility and EPA if stormwater pollution is observed in the discharge. Signage at facilities will increase public awareness of those facilities that have coverage under the 2021 MSGP.

Under the 2021 MSGP, EPA is requiring that the sign of permit coverage include a statement about how to obtain a copy of the SWPPP either from a URL or from the EPA Regional Office. This addition will help make the procedure for requesting a SWPPP easily understandable by the public. Part 5.4 in the 2015 MSGP required MSGP facilities to make their SWPPPs publicly available through a URL or by providing additional information in the NOI. Under this requirement, the sign must also include information on how to report a possible stormwater pollution problem to EPA.

Part 1.3.6 Your Official End Date of Permit Coverage

This Part describes how long permit coverage lasts. This part also covers the content described below under "Continuation of Coverage for Existing Operators After the Permit Expires." This clarification was previously stated in Part 1.2.2 of the 2015 MSGP and is now located in the fact sheet for the 2021 MSGP. The clarification describes for facilities the continuation of coverage for existing facilities if the permit expires. Where EPA fails to issue a final general permit prior to the expiration of a previous general permit, EPA has the authority to administratively extend the permit for operators authorized to discharge under

the prior general permit. However, EPA does not have the authority to provide coverage to industrial facilities not already authorized to discharge under that prior general permit. If the five-year expiration date for this permit has passed and a new MSGP has not been reissued, any such projects would need to obtain coverage under an individual permit, or other general permit that is still in effect.

Part 1.3.7 Continuation of Coverage for Existing Operators After the Permit Expires

Note that if the 2021 MSGP is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with section 558(c) of the Administrative Procedure Act (see 40 CFR 122.6) and remain in force and effect for operators that were covered prior to its expiration. All operators authorized to discharge prior to the expiration date of the 2021 MSGP will automatically remain covered under the 2021 MSGP until the earliest of:

1. The date the operator is authorized for coverage under a new version of the MSGP following the timely submittal of a complete and accurate NOI. Note that if a timely NOI for coverage under the reissued or replacement permit is not submitted, coverage will terminate on the date that the NOI was due; or
2. The date of the submittal of a Notice of Termination; or
3. Issuance of an individual permit for the facility's discharge(s); or
4. A final permit decision by EPA not to reissue the MSGP, at which time EPA will identify a reasonable time period for covered operators to seek coverage under an alternative general permit or an individual permit. Coverage under the 2021 MSGP will terminate at the end of this time period.

EPA reserves the right to modify or revoke and reissue the 2021 MSGP under 40 CFR 122.62 and 63, in which case operators will be notified of any relevant changes or procedures to which they may be subject. If EPA fails to issue another general permit prior to the expiration of a previous one, EPA does not have the authority to provide coverage to industrial operators not already covered under that prior general permit. If the five-year expiration date for the 2021 MSGP has passed and a new MSGP has not been reissued, new operators seeking discharge authorization should contact EPA regarding the options available, such as applying for individual permit coverage.

Part 1.3.8 Coverage Under Alternative Permits

This Part describes the procedures for obtaining an alternative permit. The following are scenarios in which an alternative permit may be required: 1) a new or previously permitted operator is denied coverage under the MSGP; 2) an existing operator covered under the 2021 MSGP loses their authorization under the MSGP; or 3) an operator requests to be covered under an alternative permit.

Following submittal of a complete and accurate NOI, EPA may notify an operator in writing that it is not covered under the 2021 MSGP, and that it must apply for and/or obtain coverage under either an individual NPDES permit or an alternate general NPDES permit. This notification will include a brief statement of the reasons for this decision and will provide application information or NOI requirements.

If an operator is currently covered under a previously issued MSGP or the 2021 MSGP, the notice will set a deadline to file the permit application or NOI for an individual permit or alternative general permit, and will include a statement that on the effective date of the

individual NPDES permit or the date of coverage under an alternative general NPDES permit, coverage under this general permit will terminate. EPA will terminate your MSGP permit coverage in NeT-MSGP at that time. EPA may grant additional time to submit the application or NOI if the operator requests it. If an operator fails to submit an individual NPDES permit application or NOI as required by EPA, the applicability of the MSGP is terminated at the end of the day specified by EPA as the deadline for application or NOI submittal. EPA may take appropriate enforcement action for any unpermitted discharges. If the operator submits a timely permit application or NOI, coverage under the MSGP is terminated on the effective date of the coverage under the alternative permit.

After obtaining coverage under the MSGP, the operator may request to be excluded from such coverage by applying for an individual permit. In this case, the operator must submit an individual permit application per 40 CFR 122.28(b)(3)(iii), along with a statement of reasons supporting the request, to the applicable EPA Regional Office listed in Part 7.8. The request for an individual permit may be granted (or an alternative general permit may be proffered) if the reasons are adequate to support the request. When an individual permit is issued or coverage under an alternative general permit is granted, MSGP coverage is automatically terminated on the effective date of the alternative permit, per 40 CFR 122.28(b)(3)(iv).

Part 1.4 Terminating Coverage

Part 1.4.1 How to Submit your Notice of Termination (NOT) to Terminate Permit Coverage

This Part describes how to submit a Notice of Termination (NOT) to terminate permit coverage. Termination of MSGP coverage indicates that the operator no longer has an obligation to manage industrial stormwater per the MSGP's provisions, based on at least one of the reasons described in Part 1.3.1. To terminate MSGP coverage, the operator must use NeT-MSGP to electronically prepare and submit a complete and accurate NOT, unless the applicable EPA Regional Office grants the operator a waiver from electronic reporting, in which case it may use the paper NOT form in Appendix H; the operator's authorization to discharge terminates at midnight of the day that the complete NOT is processed. If EPA determines that the NOT is incomplete or that the operator has not satisfied one of the termination conditions in Part 1.3.2, then the notice is not valid and the operator must continue to comply with the conditions of the permit.

Part 1.4.2 When to Submit Your Notice of Termination

If an operator desires to terminate MSGP coverage, it must submit a NOT, as described in Part 1.4.2, within 30 days after one or more of the following conditions have been met: (1) a new owner or operator has received authorization to discharge under this permit; (2) operations have ceased at the facility (including facility closure) and there no longer are discharges of stormwater associated with industrial activity and necessary sediment and erosion controls have already been implemented at the facility as required by Part 2.1.2.5; (3) operators are covered under one of the three mining-related sectors in the permit (i.e., Sectors G, H, and J) and they have met the specific termination requirements described in the specific sector under which they are covered; or (4) permit coverage has been obtained under an individual permit or alternative general permit for all discharges requiring NPDES permit coverage.

Part 1.5 Conditional Exclusion for No Exposure

This Part states that by submitting a No Exposure Certification (NEC), an operator is no longer required to comply with the MSGP (including the NOT requirements), providing the

operator maintains a condition of "no exposure" (i.e., all industrial materials and operations are not exposed to stormwater). An operator must use NeT-MSGP to electronically prepare and submit to EPA a complete and accurate NEC once every five years per Part 7.2, unless the applicable EPA Regional Office grants you a waiver from electronic reporting, in which case you may use the paper NEC form in Appendix K.

Part 1.6 Permit Compliance

This Part explains that any failure to comply with the conditions of the 2021 MSGP constitutes a violation of the CWA (further discussed in Appendix B). Where requirements and schedules for taking corrective actions are specified, the time intervals are not grace periods, but are schedules considered reasonable for making repairs and improvements. For provisions specifying a time period to remedy noncompliance, the initial failure, such as a violation of a numeric or non-numeric effluent limit, constitutes a violation of the MSGP and the CWA, and subsequent failure to remedy such deficiencies within the specified time periods constitutes an independent, additional violation of the 2021 MSGP and CWA. However, where an event occurs which does not itself constitute permit noncompliance, such as an exceedance of an applicable benchmark, there is no permit violation provided the operator takes the required responses within the deadlines in Part 5. Also applicable to all operators is the "duty to comply," a standard NPDES permit condition listed in Appendix B.

Part 1.7 Severability

Severability is a standard permit condition applicable to every NPDES permit. The term means that if any portion of the 2021 MSGP is deemed to be invalid, it does not necessarily render the whole permit invalid and it is EPA's intent for the MSGP to remain in effect to the extent possible, pursuant to 40 CFR 124.16(a)(2) and 124.60. In the event that any part of the 2021 MSGP is invalidated, EPA will advise the regulated community as to the effect of such invalidation. EPA typically puts all standard permit conditions in an Appendix (Appendix B in 2021 MSGP), but the Agency put the severability requirement in Part 1 to make sure operators do not overlook this provision.

Part 2 Control Measures and Effluent Limits

The 2021 MSGP contains effluent limits that correspond to required levels of technology-based control for various discharges under the CWA (Best Practicable Control Technology Currently Available (BPT) as set forth in CWA section 304(b)(1) and Appendix A; Best Available Technology Economically Achievable (BAT), as set forth in CWA section 304(b)(2) and Appendix A; and Best Conventional Pollutant Control Technology (BCT), as set forth in CWA section 304(b)(4) and Appendix A). Where an ELG or NSPS applies to discharges authorized by this permit, the requirement must be incorporated into the permit as an effluent limitation. These limits are included, as applicable, in the sector-specific requirements of Part 8. Where EPA has not yet issued an effluent limitation guideline, EPA determines the appropriate technology-based level of control based on best professional judgment (BPJ, sometimes also referred to as "best engineering judgment") of the permit writer. CWA section 402(a)(1); 40 CFR 125.3. For the 2021 MSGP, most of the technology-based limits are based on BPJ decision-making because no ELG applies.

Stormwater discharges can be highly intermittent, are usually characterized by high flows occurring over relatively short time intervals, and can carry a variety of pollutants whose source, nature and extent varies. This is in contrast to process wastewater discharges from a particular industrial or commercial facility where the effluent is generally more predictable and can be more effectively analyzed to develop numeric effluent limitations. EPA includes

non-numeric effluent limits in NPDES permits,³ such as the MSGP, such as requirements mandating facilities to “minimize” various types of pollutant discharges, or to implement control measures unless “infeasible.” Consistent with the control level requirements of the CWA, since 2008 for purposes of the MSGP EPA has defined the term “minimize” as “for the purposes of this permit minimize means to reduce and/or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practices.” Similarly, “feasible” means “technologically possible and economically practicable and achievable in light of best industry practices. EPA notes that it does not intend for any permit requirement to conflict with state water rights law.” EPA has determined that the technology-based numeric and non-numeric effluent limits in the 2021 MSGP, taken as a whole, constitute BPT for all pollutants, BCT for conventional pollutants, and BAT for toxic and nonconventional pollutants that may be discharged via industrial stormwater.

The BAT/BPT/BCT effluent limits in the 2021 MSGP are expressed as specific pollution prevention requirements for minimizing the pollutant levels in the discharge. Some effluent limits have greater specificity because in past MSGPs they were written in general terms, leaving operators wide latitude in interpreting what constituted compliance, which led to widely varying levels of stormwater program effectiveness. EPA continues to assert that the combination of pollution prevention and structural management practices required by these limits are the best technologically available and economically practicable and achievable controls, as well as the most environmentally sound way to control the discharge of pollutants in stormwater discharges from industrial facilities. This approach is supported by the results of a comprehensive technical survey EPA completed in 1979. Pollution prevention continues to be the cornerstone of the NPDES stormwater program.

Requirements are technologically available

EPA asserts that the requirements of the 2021 MSGP represent BPT, BCT and BAT. Most of the effluent limits in the 2021 MSGP have been permit requirements since EPA first issued the MSGP in 1995 (with minor modifications). Additionally, because most facilities covered under the permit are existing dischargers, these facilities are already implementing control measures to meet the effluent limits in the permit.

Requirements meet the BPT and BAT economic requirements set forth in the CWA

There are different economic considerations under BPT, BCT, and BAT. EPA finds that the limits in the 2021 MSGP meet the BPT and BAT economic requirements. Essentially, the same types of controls are employed to minimize toxic, nonconventional and conventional pollutants. As a result, EPA is evaluating effluent limits using only the BPT and BAT standards. Since conventional pollutants will also be adequately controlled by these same effluent limits for which EPA applied the BPT and BAT tests, EPA has determined that it is not necessary to conduct separate BCT economic tests.

³ *Natural Res. Def. Council, Inc. v. EPA*, 673 F.2d 400, 403 (D.C. Cir. 1982) (noting that “[CWA] section 502(11) defines ‘effluent limitation’ as ‘any restriction’ on the amounts of pollutants discharged, not just a numerical restriction”; holding that section of CWA authorizing courts of appeals to review promulgation of “any effluent limitation or other limitation” did not confine the court’s review to the EPA’s establishment of numerical limitations on pollutant discharges, but instead authorized review of other limitations under the definition) . In *Natural Res. Def. Council, Inc. v. Costle*, 568 F.2d 1369 (D.C. Cir. 1977), the D.C. Circuit stressed that when numerical effluent limitations are infeasible, EPA may issue permits with conditions designed to reduce the level of effluent discharges to acceptable levels.

Under BPT, EPA determined that the requirements of the 2021 MSGP are economically practicable. EPA considered the reasonableness of the relationship between the costs of application of technology in relation to the effluent reduction benefit derived. CWA section 304(b)(1)(B); 40 CFR 125.3(d)(1). EPA estimates the total universe of dischargers that the 2021 MSGP will affect includes approximately 2,270 existing dischargers. Based on estimates provided in prior permits, updated to reflect changes to the permit and current dollars, EPA estimates the approximate incremental cost of complying with the 2021 MSGP is around \$3.85 to \$7.17 million for 2,270 facilities over the 5-year permit term or \$1,690 to \$3,157 per facility over the 5-year permit term. It is well documented that stormwater control measures (SCMs), like the ones required to comply with the 2021 MSGP, are effective at controlling pollutants in stormwater discharges. For example, the 2009 National Academies of Sciences' report, *Urban Stormwater Management in the United States*, noted that "SCMs, when designed, constructed, and maintained correctly, have demonstrated the ability to reduce discharge volume and peak flows and to remove pollutants. A multitude of case studies illustrates the use of SCMs in specific settings and demonstrates that a particular SCM can have a measurable positive effect on water quality or a biological metric" (9).

The \$3.85 to \$7.17 million total incremental cost accounts for the cost of some requirements that do not apply to all facilities; different facilities will have different compliance costs therefore an average cost per facility is not necessarily reflective of total cost. The total incremental cost was averaged over 2,270 facilities to obtain a per facility cost of \$1,690 to \$3,157 over the five-year permit term. This cost is comparable to the previous 2015 MSGP estimate of \$2,750 per facility. Although \$3.85 to \$7.17 million total incremental cost does not account for some requirements that require site-specific controls and can only be calculated per unit cost, EPA expects many facilities will have already implemented controls under the previous permit to comply with some new requirements and that some controls can satisfy multiple requirements. Therefore, it is possible total costs may be lower, depending on which controls the operator has at their facility.

Based on the cost analysis, EPA determined that the requirements of the 2021 MSGP are economically achievable. In determining "economic achievability" under BAT, EPA considered whether the costs of the controls can reasonably be borne by the industry. Because most facilities covered under the permit are existing dischargers and those facilities are already implementing control measures to meet the effluent limits in the permit, and considering the relatively modest incremental (over the 2015 permit) cost of compliance with the 2021 MSGP (around \$338 to \$632 per year per facility), EPA concludes that the technology-based effluent limitations in the MSGP are unlikely to result in a substantial economic impact to the permitted universe, including small businesses. Hence, EPA interprets this analysis to indicate that BAT limits are economically achievable. The cost analysis for the 2021 MSGP is available on the docket for the 2021 MSGP (EPA-HQ-OW-2019-0372).

Stormwater Control Measures Used to Meet the Technology-Based Effluent Limits

Stormwater control measures (SCMs) can be actions (including processes, procedures, schedules of activities, prohibitions on practices and other best management practices), or structural or installed devices to minimize or prevent water pollution. There are many options that help prevent pollutants from entering waters of the United States, and of meeting applicable effluent limits, water quality standards, or WLAs. Industrial facility operators are required to select, design, install and implement site-specific control measures to meet these limits.

EPA generally does not mandate the specific SCMs that operators must select, design, install and implement to meet the technology-based effluent limits in the permit. The permit provides operators the flexibility to determine their site-specific controls, taking into consideration what controls are most suited for their industry in terms of economic practicability and technology availability, and in some cases, considerations such as available space and safety. For example, Part 2.1.2.1 requires operators to minimize the exposure of raw, final and waste materials to stormwater. For some facilities, some or all activities and material storage may be moved indoors, while for others this will not be feasible. However, even when moving all activities/materials indoors is infeasible, some of them could be shielded by roofing or tarps, while still other activities may be limited to times when exposure to precipitation is not likely. Each of these SCMs is acceptable and appropriate depending on the circumstances. In this respect the non-numeric effluent limits in the 2021 MSGP are analogous to more traditional numeric effluent limits, which also do not require specific control technologies to meet the limits.

For many facilities, controls already in place for product loss prevention, accident and fire prevention, worker health and safety or to comply with other environmental regulations may be sufficient to meet the stormwater effluent limits in the MSGP. For many facilities, the effluent limits can be achieved without using highly engineered or complex treatment systems. The specific limits in Part 2.1 of the MSGP emphasize “low-tech” controls, such as minimizing exposure to stormwater, regular cleaning of outdoor areas where industrial activities may take place, proper maintenance, etc. However, sometimes treatment devices or constructed/installed controls may be necessary, particularly where a facility’s discharge might cause a violation of water quality standards in receiving waters.

The permit and Fact Sheet provide examples of stormwater control measures, but operators are expected to tailor these to their facilities as well as improve upon them as necessary to meet permit limits.

Part 2.1 Stormwater Control Measures (SCMs)

Part 2.1 requires operators to select, design, install, and implement SCMs, in accordance with good engineering practices and manufacturer’s specifications, to meet the technology-based effluent limits listed in Parts 2.1.2 and 2.1.3 and the water quality-based effluent limitations in Part 2.2. Note that compliance with the Part 2 effluent limits involving SCMs does not compel operators to undertake any activities that are considered unsafe. Operators must be aware that regulated stormwater discharges include stormwater run-on from outside sources that commingles with their own stormwater discharges associated with industrial activity, and they must account for the commingled discharges accordingly when selecting SCMs. If operators find their SCMs are not reducing pollutant discharges adequately, the control measures must be modified in accordance with the Part 5.1 corrective action requirements.

Some of the SCMs required in this Part are straightforward and as a result, the associated Part 6 SWPPP documentation requirements may be minimal. This means that it is acceptable to copy and paste the language of the effluent limit from the permit in the SWPPP without any additional detail or selection of a control measure. EPA maintains in the 2021 MSGP the following documentation provision that was included in the 2015 MSGP to provide for such convenience and burden reduction for operators: “Effluent limit requirements in Part 2.1.2 that do not involve the site-specific selection of a control measure or are specific activity requirements (e.g., ‘Cleaning catch basins when the depth of debris reaches two-thirds (2/3) of the sump depth, in line with manufacturer specifications, whichever is lower, and keeping the debris surface at least six inches below the outlet

pipe') are marked with an asterisk (*). When documenting in your SWPPP, per Part 6, how you will comply with the requirements marked with an asterisk, you have the option of including additional information or you may just 'copy-and-paste' those effluent limits word-for-word from the permit into your SWPPP without providing additional documentation (see Part 6.2.4)." The relative lack of leeway or choices that operators have for compliance justifies the option of allowing operators to reproduce verbatim the requirement as written in the MSGP into their SWPPPs. While minimal documentation may be sufficient and reduces some burden, operators may wish to add more information about where, when, and to which activities at the site the effluent limit/control measure will be applied, if they deem this information useful.

The permit's approach to SCMs is consistent with the CWA and its implementing regulations at 40 CFR 122.44(k)(4). Section 402(a)(2) of the CWA states: "The administrator shall prescribe conditions for such permits to assure compliance with the requirements in paragraph (1) . . . including conditions on data and information collection, reporting and such other requirements as he deems appropriate." (Section 402(a)(1) includes effluent limitation requirements.) This statutory provision is reflected in the CWA implementing regulations, which state that BMPs, i.e., control measures, can be included in permits when "[t]he practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA." 40 CFR 122.44(k)(4).

Part 2.1.1 SCM Selection and Design Considerations

In Part 2.1.1 operators are required to consider certain factors when selecting and designing control measures. EPA recognizes that not all of these considerations will be applicable to every facility nor will they always affect the choice of control measures. However, operators should still document that these factors were considered when selecting and designing their control measures per Part 6.2.4. The selection and design considerations include:

- Preventing stormwater from coming into contact with polluting materials is generally more effective and less costly than trying to remove pollutants from stormwater;
- Using combinations of control measures is more effective than using control measures in isolation for minimizing pollutants;
- Assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to determining which control measures will achieve the limits in the permit;
- Minimizing impervious areas at the facility and infiltrating stormwater on site (via bioretention cells, green roofs, pervious pavement, etc.) can reduce the frequency and volume of discharges, 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 can help protect streams from stormwater discharges and improve water quality;
- Using treatment interceptors (e.g., swirl separators, oil-water separators, sand filters) may be appropriate in some instances to minimize the discharge of pollutants; and
- Implementing structural improvements, enhanced/resilient pollution prevention measures, and other mitigation measures will help to minimize impacts from stormwater

discharges from major storm events, such as hurricanes, storm surge, extreme/heavy precipitation, and flooding. If such controls or measures are already in place due to existing requirements mandated by other state, local or federal agencies, you should document in your SWPPP a brief description of the controls and a reference to the existing requirement(s). If your facility may be exposed to or has previously experienced such major storm events,⁴ additional measures to consider include, but are not limited to:

- Reinforce materials storage structures to withstand flooding and additional exertion of force;
- Prevent floating of semi-stationary structures by elevating to the Base Flood Elevation (BFE)⁵ level or securing with non-corrosive device;
- When a delivery of exposed materials is expected, and a storm is anticipated within 48 hours, delay delivery until after the storm or store materials as appropriate (refer to emergency procedures);
- Temporarily store materials and waste above the BFE level;
- Temporarily reduce or eliminate outdoor storage;
- Temporarily relocate any mobile vehicles and equipment to higher ground;
- Develop scenario-based emergency procedures for major storms that are complementary to regular stormwater pollution prevention planning and identify emergency contacts for staff and contractors; and
- Conduct staff training for implementing your emergency procedures at regular intervals.

The 2021 MSGP requires operators that may be located in areas susceptible to or have experienced major storm events to consider implementing enhanced measures, such as structural improvements, additional pollution prevention measures, and other mitigation measures that are complementary to regular stormwater pollution prevention planning. Part 2.1.1 requires that operators must consider Parts 2.1.1.1 through 2.1.1.8 when selecting and designing control measures to minimize pollutant discharges via stormwater. Part 2.1.1 does not require nor prescribe specific control measure to be implemented; however, operators must document in their SWPPPs per Part 6.2.4 the considerations made to select and design control measures at the facility to minimize pollutants discharged via stormwater. Examples of major storm events are hurricanes, storm surge, extreme/heavy precipitation, and flooding. EPA is not requiring operators to implement the controls given as examples in the permit but is requiring operators to consider the benefit of selecting and designing control measures that reduce risks to their industrial facility and the potential impact of pollutants in stormwater discharges caused by major storm events. Heavy precipitation refers to instances during which the amount of rain or snow experienced in a location substantially exceeds what is normal. What constitutes a period of heavy precipitation varies according to location and season. Heavy precipitation does not

⁴ To determine if your facility is susceptible to an increased frequency of major storm events that could impact the discharge of pollutants in stormwater, you may reference FEMA, NOAA, or USGS flood map products at https://www.usgs.gov/faqs/where-can-i-find-flood-maps?qt-news_science_products=0#qt-news_science_products.

⁵ Base Flood Elevation (BFE) is the elevation of surface water resulting from a flood that has a 1% chance of equaling or exceeding that level in any given year. The BFE is shown on the Flood Insurance Rate Map (FIRM) for zones AE, AH, A1–A30, AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO, V1–V30 and VE. (Source: <https://www.fema.gov/node/404233>). The FEMA Flood Map Service Center can be accessed through <https://msc.fema.gov/portal/search>.

necessarily mean the total amount of precipitation at a location has increased—just that precipitation is occurring in more intense or more frequent events.

Where facilities already have emergency and risk management plans or have already implemented such controls due to existing requirements mandated by other state, local or federal agencies, operators should include in their SWPPP a description of measures in place for such events and a reference to the existing requirement(s). Operators should also consider how they might bolster existing procedures to account for the impacts on their SCMs (for instance, controls being filled with sediment or clogged by debris) and potential pollutant discharges during major storm events. Operators are encouraged to consider all reasonably available data and utilize various reference maps, including those published by FEMA, NOAA, and USGS, to help determine if their facility may experience an increased frequency of major storm events that could impact the discharge of pollutants in stormwater.

Part 2.1.2 Non-Numeric Technology-Based Effluent Limits (BPT/BAT/BCT)

The 2021 MSGP requires operators to implement stormwater control measures (SCMs) to comply with non-numeric technology-based effluent limits, expressed narratively pursuant to 40 CFR 122.44(k). The achievement of these non-numeric limits will result in the reduction or elimination of pollutants from stormwater discharges. Such limits were developed using EPA's best professional judgment (BPJ). The requirements in Part 2 are the effluent limits applicable to all discharges associated with industrial activity for all sectors, while additional sector-specific effluent limits are found in Part 8.

Throughout Part 2.1 (and Part 8), the term "minimize" means to "reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practice." The term "infeasible" means not technologically available or not economically practicable and achievable in light of best industry practices. EPA notes that it does not intend for any permit requirement to conflict with state water rights law. The following is a summary of the permit's non-numeric technology-based effluent limits:

Part 2.1.2.1 Minimize Exposure

This Part requires operators to limit the exposure of manufacturing, processing, and material storage areas to stormwater in order to minimize (per the definition of "minimize" in Appendix A) pollutant discharges by either locating industrial materials and activities inside or protecting them with storm-resistant coverings. Limiting contact with precipitation can reduce the need for control measures to treat or otherwise reduce pollutants in stormwater discharges. Examples include covering materials or activities with temporary structures (e.g., tarps) when wet weather is expected or moving materials or activities to existing or new permanent structures (e.g., buildings, silos, sheds). Even a simple practice such as keeping a dumpster lid closed can be very effective. Effluent limit requirements that do not involve the site-specific selection of a control measure or are specific activity requirements are marked with an asterisk (*). When documenting in your SWPPP, per Part 6, how the operator will comply with the requirements marked with an asterisk, the operator has the option of including additional information or it may just 'copy-and-paste' those effluent limits word-for-word from the permit into the SWPPP without providing additional documentation (see Part 6.2.4). In minimizing exposure, operators must also:

- Use grading, berming, or curbing to prevent discharges of contaminated flows and divert run-on away from these areas;

- Locate materials, equipment, and activities so that potential leaks and spills are contained or able to be contained or diverted before discharging;
- Store leaky vehicles and equipment indoors;
- Perform all vehicle and/or equipment cleaning operations indoors, under cover, or in bermed areas that prevent discharges and run-on and also that capture any overspray; and
- Drain fluids from equipment and vehicles that will be decommissioned, and, for any equipment and vehicles that will remain unused for extended periods of time, inspect at least monthly for leaks.*

EPA moved several requirements that were under Part 2.1.2.1 in the 2015 MSGP to Part 2.1.2.4 in the 2021 MSGP due to public comments that those requirements more appropriately belonged in the section of the permit that outlined requirements for spill prevention and response.

Part 2.1.2.2 Good Housekeeping

This Part requires that the operator keep all exposed areas that are potential pollutant sources clean to help receiving waters meet water quality standards. Good housekeeping is an inexpensive way to maintain a clean and orderly facility and keep contaminants out of stormwater discharges. Often the most effective first step towards minimizing pollution in stormwater from industrial sites simply involves commonsense improvements to a facility's basic housekeeping methods. A clean and orderly work area can reduce the possibility of accidental spills caused by mishandling of chemicals and equipment and well-maintained material and chemical storage areas can reduce the possibility of stormwater mixing with pollutants.

There are some simple procedures operators can implement to meet the good housekeeping effluent limit, including improved operation and maintenance of industrial machinery and processes, improved materials storage practices, better materials inventory controls, more frequent and regular clean-up schedules, maintaining well organized work areas, and education programs for employees about these practices. Effluent limit requirements that do not involve the site-specific selection of a control measure or are specific activity requirements are marked with an asterisk (*). When documenting in your SWPPP, per Part 6, how the operator will comply with the requirements marked with an asterisk, the operator has the option of including additional information or it may just 'copy-and-paste' those effluent limits word-for-word from the permit into the SWPPP without providing additional documentation (see Part 6.2.4). At a minimum, to comply with this effluent limit operators must:

- Sweep or vacuum at regular intervals, or alternatively, wash down the area and collect and/or treat, and properly dispose of the wash down water;
- Store materials in appropriate containers;
- Keep all dumpsters with a lid 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). In no cases can there be dry weather discharges from dumpsters or roll off boxes;*
- 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.

- This part also includes a plastic materials requirement for facilities that handle pre-production plastic ("nurdles") to implement SCMs to eliminate such plastic discharges in stormwater. EPA includes this language to identify and increase awareness of the potential for this type of pollution to occur. Examples of plastic material required to be addressed as stormwater pollutants include plastic resin pellets, powders, flakes, additives, regrind, scrap, waste and recycling. EPA added examples in a footnote of the permit of appropriate control measures, which include but are not limited to: installing a containment system, or other control, at each on-site storm drain discharge point down gradient of areas containing plastic material, designed to trap all particles retained by a 1mm mesh screen; using a durable sealed container designed not to rupture under typical loading and unloading activities at all points of plastic transfer and storage; using capture devices as a form of secondary containment during transfers, loading, or unloading plastic materials, such as catch pans, tarps, berms or any other device that collects errant material; having a vacuum or vacuum-type system for quick cleanup of fugitive plastic material available for employees; for facilities that maintain outdoor storage of plastic materials, do so in a durable, permanent structure that prevents exposure to precipitation that could cause the material to be discharged via stormwater.

EPA also recommends that operators store containers that are potential sources of stormwater pollution away from direct traffic routes, stack them according to manufacturer's specifications, and store them on pallets or other similar devices to prevent corrosion.

Part 2.1.2.3 Maintenance

This Part describes how operators must maintain all SCMs so they remain effective. Effluent limit requirements that do not involve the site-specific selection of a control measure or are specific activity are marked with an asterisk (*). When documenting in your SWPPP, per Part 6, how the operator will comply with the requirements marked with an asterisk, the operator has the option of including additional information or it may just 'copy-and-paste' those effluent limits word-for-word from the permit into the SWPPP without providing additional documentation (see Part 6.2.4). Operators must comply with the following maintenance activity requirements:

- Performing inspections and preventive maintenance of stormwater drainage, source controls, treatment systems, and plant equipment and systems that could fail and result in discharge of pollutants via stormwater;
- Diligently maintaining nonstructural control measures (e.g., keep spill response supplies available, personnel appropriately trained);
- Inspecting and maintaining baghouses at least quarterly to prevent the escape of dust from the system and immediately removing accumulated dust at the base of the exterior baghouse;*
- Cleaning catch basins when the depth of debris reaches two-thirds (2/3) of the sump depth, or in line with manufacturer specifications, whichever is lower, and keeping the debris surface at least 6 inches below the outlet pipe.*

If the operator finds that its control measures need maintenance, it must conduct necessary maintenance immediately. If control measures need to be repaired or replaced, the operator must immediately take all reasonable steps to minimize or prevent the discharge of pollutants until it can implement the final repair or replacement, including cleaning up any contaminated surfaces so that the material will not be discharged during

subsequent storm events. Final repairs/replacement of stormwater controls should be completed as soon as feasible but must be no later than the timeframe established in Part 5.1.3 for corrective actions, i.e., within 14 days or, if that is infeasible, no longer than 45 days (or longer per notification of the Region). If a control measure was never installed, was installed incorrectly, or not in accordance with Parts 2 and/or 8, or is not being properly operated or maintained, the operator must conduct corrective action as specified in Part 5.1.

The 2021 MSGP now specifies that “immediately” means that the day the operator finds a condition requiring corrective action, you must take all reasonable steps to minimize or prevent the discharge of pollutants until you can implement a permanent solution. However, if the operator identifies a problem too late in the work-day to initiate corrective action, the operator must perform the corrective action the following work-day morning. “All reasonable steps” means that the operator responds to the conditions triggering the corrective action, such as cleaning up any exposed materials that may be discharged via stormwater (e.g., through sweeping, vacuuming) or making arrangements (i.e., scheduling) for a new SCM to be installed. “All reasonable steps” does not mean taking action when it is unsafe to do so (e.g., due to inclement weather).

This Part includes language on baghouses to highlight the need for their inspection and maintenance, because baghouses can be significant sources of pollutants. EPA encourages operators to inspect and maintain baghouses more frequently than quarterly and encourages the use of baghouse leak detectors so that problems are detected as soon as possible. This Part also includes industry-standard catch basin cleaning requirements to prevent this maintenance action from being overlooked. Where possible, EPA encourages operators to clean catch basins prior to the debris depth reaching 2/3 in order to avoid a SCM failure. EPA added a part to this requirement regarding cleaning catch basins based on manufacturer specifications if those specifications were lower than 2/3 debris depth.

Part 2.1.2.4 Spill Prevention and Response Procedures

This Part requires that operators minimize the potential for stormwater exposure from leaks, spills and other releases, which can be significant sources of stormwater pollution. As a reminder, the term “minimize” is defined, for the purposes of this permit, as “to reduce and/or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practices.” In addition to preventing spills and leaks, this effluent limit has requirements after a spill/release occurs, to limit environmental damage. EPA encourages operators to identify potential spill areas and keep an inventory of materials handled, used, and disposed. This information would be valuable for complying with the requirement to specify the material handling procedures, storage requirements, containment or diversion equipment, and spill cleanup procedures that will minimize the potential for spills/releases and, in the event of a spill/release, ensure a proper and timely response. Effluent limit requirements that do not involve the site-specific selection of a control measure or are specific activity are marked with an asterisk (*). When documenting in your SWPPP, per Part 6, how the operator will comply with the requirements marked with an asterisk, the operator has the option of including additional information or it may just ‘copy-and-paste’ those effluent limits word-for-word from the permit into the SWPPP without providing additional documentation (see Part 6.2.4). To comply with this effluent limit, operators must:

- Clean up spills and leaks promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants;

- Use drip pans and absorbents if leaky vehicles and/or equipment are stored outdoors;
- Use spill/overflow protection equipment;
- Plainly label containers (e.g., "Used Oil," "Spent Solvents," "Fertilizers and Pesticides") 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 the use of secondary containment and barriers between material storage and traffic areas, or a similarly effective means designed to prevent the discharge of pollutants from these areas (e.g., curbing, spill diversion pond, double-walled tank, drip pan);
- Develop training on the procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases. When needed, execute such procedures as soon as possible;
- Keep spill kits on-site, located near areas where spills may occur or where a rapid response can be made; and
- Notify appropriate facility personnel when a leak, spill, or other release occurs.

Part 2.1.2.4 also specifies that when a leak, spill or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR 110, 40 CFR 117, or 40 CFR 302, occurs during a 24-hour period, the operator must notify the National Response Center (NRC) at (800) 424-8802 or, in the Washington, DC, metropolitan area, call (202) 267-2675 as soon as there is knowledge of the discharge. State or local requirements may necessitate reporting spills or discharges to local emergency response, public health, or drinking water supply agencies. Contact information must be in locations that are readily accessible and available.

In addition to implementing spill prevention and response measures to minimize stormwater contamination, EPA encourages operators to implement controls that will minimize the potential for leaked or spilled material from storage tanks to be discharged into receiving waterbodies. Such discharges can and have caused water quality impairments and serious drinking water problems downstream from the tank release. To prevent spills and leaks, EPA encourages MSGP facilities with material storage tanks, especially those with chemical storage tanks, to implement controls such as the following to both minimize the potential for stormwater contamination and to minimize the potential for direct discharges from storage tank spills or leaks:

- *Secondary containment:* For all chemical liquids and petroleum products that are held in a storage area, tank or other container, store the fluids within an impermeable secondary containment area with a retention capacity of at least 110% of the volume of the largest tank or container, or 10% of the total volume of all tanks and containers in the area, whichever is larger. There should be no overflow from the secondary containment area, which should be designed, constructed, operated and maintained so that the materials can be recovered and so that polluting materials cannot escape directly or indirectly to any public sewer system or to surface waters or ground water. Records should be maintained that document all such tanks and stored materials and their associated secondary containment area.
- *Secondary containment valves:* Secondary containment area valves that could provide stormwater and retained fluids access to a stormwater conveyance system should be controlled by manually activated valves or other similar devices (these should be secured and remain closed with a locking mechanism). Stormwater that

accumulates in the containment area should be visually inspected to ensure no leaks or spills have occurred before release of the accumulated stormwater. Records should be maintained that document the individual making the observation, the description of the accumulated stormwater, and the date and time of the release.

This effluent limit also requires that operators keep all industrial equipment and systems in effective operating condition in order to minimize pollutant discharges. Therefore, the operator must conduct regular maintenance and self-inspections (per Part 3) for all storage tanks and secondary containment areas. Operators must look for leaks/spills, cracks, corrosion, etc., to identify deficiencies and/or problem components such as fittings, pipe connections and valves. For any deficiencies identified, operators must conduct the necessary maintenance, or if applicable, take corrective action in accordance with Part 5.1.

Part 2.1.2.5 Erosion and Sediment Controls

This Part requires operators to minimize pollutant discharges from erosion by stabilizing exposed soils at the facility in order to minimize pollutant discharges and placing flow velocity dissipation devices at discharge locations. Velocity dissipation should control channel and streambank erosion and scour in the immediate vicinity of discharge points. Part 2.1.2.5 also requires the use of structural and non-structural controls to minimize the discharge of sediment. EPA requires that whenever polymers and/or other chemical treatment will be used for erosion control, the polymers and/or chemicals and their purpose must be identified in the SWPPP.

The purpose of this requirement is to prevent discharges of sediment from exposed areas of industrial sites that, due to construction activities, steep slopes, sandy soils or other causes, are prone to soil erosion. Construction and other earth-disturbing activities often result in the exposure of underlying soil to wind and precipitation, while steep slopes or sandy soils may not be able to hold plant life so that soils are exposed, leading to erosion and the need for erosion controls.

The types of erosion controls for exposed areas that operators should consider first include seeding, mulching, and sodding to prevent soil from becoming dislodged. Sediment control practices such as silt fences, sediment ponds, and stabilized entrances trap sediment after it has eroded. Sediment control practices, such as flow velocity dissipaters and sediment catchers, must be used to back up erosion control practices. There are many resources available to help operators select appropriate control measures for erosion and sediment, including EPA's Stormwater Discharges from Construction Activities website at: <https://www.epa.gov/npdes/stormwater-discharges-construction-activities>.

EPA acknowledges that portions of some industrial facilities are intended to be left unvegetated or unstabilized. For example, sizable unpaved earthen areas are common at large steel mills. For such areas, compaction of the soil, covering with gravel, and/or application of a soil binder may be adequate erosion control measures for meeting Part 2.1.2.5.

Part 2.1.2.6 Management of Stormwater

This Part requires operators to divert, infiltrate, reuse, contain, or otherwise reduce stormwater to minimize pollutants in the discharge, and to employ practices that direct the flow of stormwater away from areas of exposed materials or pollutant sources. Such practices can also be used to divert polluted stormwater to natural areas or locations where other kinds of treatment occurs.

To meet this effluent limit, operators may consider vegetative swales, collection and reuse of stormwater, inlet controls, snow management, infiltration devices, and wet detention/retention basins.

In selecting, designing, installing, and implementing appropriate stormwater control measures, operators are encouraged to consult with EPA's resources relating to stormwater discharge management, including the sector-specific *Industrial Stormwater Fact Sheet Series*, (<https://www.epa.gov/npdes/stormwater-discharges-industrial-activities#factsheets>) and any similar state or tribal resources.

If infiltration is a selected control, operators should pay special attention to the discussion at the end of the section of the Fact Sheet entitled: *Stormwater infiltration control measures that meet the definition of a Class V Injection Well could be subject to the Underground Injection Control (UIC) Regulations*.

Stormwater Infiltration Control Measures Subject to the Underground Injection Control (UIC) Regulations

EPA promotes stormwater infiltration through green infrastructure as a cost-effective, sustainable, and environmentally friendly approach to stormwater management. The primary goals of this effort are to reduce stormwater discharge volume and contaminants, and sewer overflow events by using vegetation, soils, natural processes, and infiltration technologies to soak, store, infiltrate and/or treat stormwater. When implementing stormwater infiltration, operators should ensure that ground water is protected because under certain conditions, infiltration could allow contaminants to reach underground sources of drinking water. For example, certain geologic and hydrologic conditions could create ready pathways for pollutants in the stormwater to enter the receiving aquifers.

The Safe Drinking Water Act (SDWA) was established, in part, to protect the nation's drinking water. As required by SDWA, EPA established a regulatory program to prevent underground injection which endangers underground drinking water sources and promulgated regulations containing minimum requirements for state underground injection control (UIC) programs. (See 42 U.S.C. ' 300h-1; 40 C.F.R. Parts 144-146). Once EPA approves a state or tribal UIC program as meeting the requirements of SDWA and EPA's implementing regulations, the state or tribe has primary enforcement responsibility for the UIC program. If a state does not apply for primacy, EPA retains direct implementation authority. State, tribal, or federal UIC regulations would apply to any stormwater infiltration control measures that could be classified as an Injection Well.

EPA's regulations at 40 CFR 144.3 define "well injection" as the subsurface emplacement of fluids through a well. A "well" is defined as a bored, drilled or driven shaft, or dug hole whose depth is greater than its largest surface dimension; an improved sinkhole; or a subsurface fluid distribution system. *Subsurface fluid distribution system* means an assemblage of perforated pipes, drain tiles or other similar mechanisms intended to distribute fluids below the surface of the ground. Commercially manufactured or proprietary infiltration devices may fall into this category. *Improved sinkhole* means a naturally occurring karst depression or other natural crevice found in volcanic terrain and other geologic settings that has been engineered for the purpose of directing and emplacing fluids into the subsurface.

Infiltration control measures that are also injection wells would be subject to UIC regulations and would likely be classified as Class V Injection Wells. Most Class V wells are authorized by rule if operators submit inventory information to the proper authority (state, tribe, or EPA), do not endanger underground sources of drinking water, and are properly abandoned when

no longer in use. An operator may also be required to get a Class V permit or take other actions to prevent potential degradation of underground sources of drinking water. Operators can find out the status of their state's UIC program at <https://www.epa.gov/uic>. On June 13, 2008, EPA issued a policy memo that clarified which green infrastructure stormwater infiltration practices have the potential to be regulated as Class V wells by the UIC program. A copy of this memo is available on EPA's website at: <https://www.epa.gov/sites/production/files/2015-10/documents/epamemooninfiltrationclassvwells.pdf>.

Part 2.1.2.7 Salt Storage Piles or Pile Containing Salt

This Part requires that operators enclose or cover piles completely or partially comprised of salt in order to minimize pollutant discharges. Operators must also implement appropriate measures to minimize the exposure of the piles during the adding to or removing from processes. Operators do not need to enclose or cover piles if stormwater from the piles is not discharged or if discharges from the piles are authorized under another NPDES permit.

Options for meeting the salt pile effluent limit include covering the piles or eliminating the discharge from such areas of the facility. Preventing exposure of piles to stormwater or run-on also eliminates the economic loss from materials being dissolved and washed away. A permanent under-roof storage facility is the best way to protect chemicals from precipitation and stormwater, but where this is not possible, salt piles can be located on impermeable bituminous pads and covered with a waterproof cover.

Part 2.1.2.8 Employee Training

This Part requires operators to train all employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the limits and conditions of the permit. This includes all members of the stormwater pollution prevention team identified in Part 6.2.1. The permit specifies the types of personnel and the tasks they perform that must be trained, so that they understand the MSGP's requirements and their specific responsibilities with respect to those requirements (e.g., personnel who are responsible for the design, installation, maintenance, and/or repair of controls including pollution prevention measures). For those personnel needing training, the following areas must be covered, if applicable to the person's duties:

- An overview of what is in the SWPPP;
- Spill response procedures, good housekeeping, maintenance requirements, and material management practices;
- The location of all controls on the site required by the 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; and
- The facility's emergency procedures, if applicable per Part 2.1.1.

Training sessions should be conducted at least annually to assure adequate understanding of the objectives of the control measures and the individual responsibilities of each employee. More frequent training may be appropriate at facilities with high employee turnover or where stormwater programs are more complicated or multi-faceted. Often,

training could be a part of routine employee meetings for safety or fire protection. Contractor personnel also must be trained in relevant aspects of stormwater pollution prevention, as appropriate.

Part 2.1.2.9 Non-Stormwater Discharges

This Part specifies that the operator must evaluate for the presence of non-stormwater discharges; the operator must eliminate any non-stormwater discharges not explicitly authorized in Part 1.2.2 or covered by another NPDES permit. Other than the exclusive list of authorized non-stormwater discharges listed in Part 1.2.2, non-stormwater discharges requiring NPDES permit coverage are not, per Part 1.1.3, authorized under the MSGP.

Additionally, Part 2.1.2.9 requires that all wash water, with the exception of discharges from pavement wash water and routine building washdown per Part 1.2.2, drain to a sanitary sewer, sump or other appropriate collection system (i.e., not the stormwater drainage system). Additionally, this permit does not authorize the discharge of vehicle and equipment wash water, including tank cleaning operations. These wastewaters must be covered under a separate NPDES permit, discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements, or disposed of otherwise in accordance with applicable law. Operators who need help in finding and eliminating unauthorized discharges may find the following guidance helpful: *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*, Chapters 7, 8, 9 at: <https://www3.epa.gov/npdes/pubs/iddmanualwithappendices.pdf>.

Part 2.1.2.10 Dust Generation and Vehicle Tracking of Industrial Materials

This Part requires operators to control generation of dust and off-site tracking of raw, final, or waste materials in order to minimize pollutant discharges. Dust control practices can reduce the activities and air movement that cause dust to be generated. Airborne particles pose a dual threat to the environment and human health. Dust carried off-site increases the likelihood of water pollution. Control measures to minimize the generation of dust include:

- *Vegetative Cover.* In areas not expected to handle vehicle traffic, vegetative stabilization of disturbed soil is often desirable. Such a practice reduces wind velocity at ground level, thus reducing the potential for dust to become airborne.
- *Mulch.* Mulching can be a quick and effective means of dust control for a recently disturbed area.
- *Wind Breaks.* Wind breaks are barriers (either natural or constructed) that reduce wind velocity through a site which then reduces the possibility of suspended particles. Wind breaks can be trees or shrubs left in place during site clearing or constructed barriers such as a wind fence, snow fence, tarp curtain, hay bale, crate wall or sediment wall.
- *Stone.* Stone can be an effective dust deterrent in areas where vegetation cannot be established.
- *Spray-on Chemical Soil Treatments (Palliatives).* Examples of chemical adhesives include anionic asphalt emulsion, latex emulsion, resin-water emulsions and calcium chloride. Chemical palliatives should be used only on mineral soils. When considering chemical application to suppress dust, determine whether the chemical is biodegradable or water-soluble and what effect its application could have on the surrounding environment, including waterbodies and wildlife.

To reduce vehicle tracking of materials, the operator should keep stored materials or materials that could be spilled away from all roads within the site. Specific measures such as setting up a wash site or separate pad to clean vehicles prior to their leaving the site may be effective at minimizing pollutant discharges from vehicle tracking as well (provided the wash water is not discharged).

Part 2.1.3 Numeric Effluent Limitations Based on Effluent Limitations Guidelines

This Part provides the applicable federal effluent limitations guidelines that facilities must comply with. The following table describes where these limits can be found in the permit.

Table 2-1 Stormwater-Specific Effluent Limitations Guidelines

Regulated Activity	40 CFR Part/Subpart	Effluent Limitation
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	Part 429, Subpart I	See Part 8.A.8
Runoff from phosphate fertilizer manufacturing facilities	Part 418, Subpart A	See Part 8.C.5
Runoff from asphalt emulsion facilities	Part 443, Subpart A	See Part 8.D.5
Runoff from material storage piles at cement manufacturing facilities	Part 411, Subpart C	See Part 8.E.6
Mine dewatering discharges at crushed stone, construction sand and gravel, or industrial sand mining facilities	Part 436, Subparts B, C, or D	See Part 8.J.10
Runoff from hazardous waste landfills	Part 445, Subpart A	See Part 8.K.7
Runoff from non-hazardous waste landfills	Part 445, Subpart B	See Part 8.L.11
Runoff from coal storage piles at steam electric generating facilities	Part 423	See Part 8.O.8
Runoff containing urea from airfield pavement deicing at existing and new primary airports with 1,000 or more annual non-propeller aircraft departures	Part 449	See Part 8.S.9

Part 2.2 Water Quality-Based Effluent Limitations

The 2021 MSGP includes water quality-based effluent limits (WQBELs) to ensure that MSGP authorized discharges will be controlled as necessary to meet applicable water quality standards, pursuant to CWA section 301(b)(1)(C) and 40 CFR 122.44(d)(1). The provisions of Part 2.2 constitute the WQBELs of the 2021 MSGP and supplement the permit's technology-based effluent limits in Part 2.1. The following is a list of the permit's WQBELs:

- Control discharges as necessary to meet applicable water quality standards of all affected states or tribes (See Part 2.2.1);

- Implement any additional measures that are necessary to be consistent with the assumptions and requirements of the applicable Total Maximum Daily Load (TMDL) and its wasteload allocation (WLA) (See Part 2.2.2.1). For discharges to impaired waters without a TMDL, conduct impaired waters monitoring (See Part 2.2.2.2). Additionally, new discharges to impaired waters must implement any measures required per the Part 1.1.6.2 eligibility requirements;
- Implement any additional measures that EPA determines are necessary to comply with applicable antidegradation requirements for discharges to Tier 2 or 2.5 waters (see Part 2.2.3).

Prior to or after initial discharge authorization, EPA may require operators to implement additional measures on a facility-specific basis, or require operators to obtain coverage under an individual permit, if information in the NOI, required reports, or other sources indicates that, after complying with the technology-based limits in Part 2.1 and the WQBELs in Part 2.2, discharges will not be controlled as necessary to meet water quality standards.

Facilities that achieve the permit's technology-based limits through the careful selection, design, installation, and implementation of effective stormwater control measures are likely to be controlling their stormwater discharges to a degree that would make additional water quality-based measures unnecessary. However, to ensure that this is so, the permit contains additional provisions in Part 2.2, which, along with the BAT/BPT/BCT limits in the permit, are as stringent as necessary to achieve water quality standards.

The WQBELs included in the permit continue to be non-numeric. EPA relies on a narrative limit to ensure discharges are controlled as necessary to meet applicable water quality standards, and to ensure that additional measures are employed where necessary to meet the narrative WQBELs, or to be consistent with the assumptions and requirements of an applicable TMDL and its WLA, or to comply with a state or tribe's antidegradation requirements. This is a reasonable approach for the 2021 MSGP, based on the following considerations:

- *Limited waterbody information available about individual dischargers:* EPA will not know prior to receiving NOIs where any new facilities are located and where they will discharge. In addition, existing facilities' NOI data from earlier permits has typically been difficult to access, and this factor plus other NOI system limitations have restricted the number and quality of NOI reviews that EPA could do. Facility type and location, and receiving water information are necessary for EPA to determine what, if any, special protections apply to that water. To assist operators in determining their receiving water information, EPA has a tool in NeT that will automatically identify their receiving water(s) and impairment status. EPA's receipt of the NOI and receiving water information may then trigger a review. For now, however, it is not possible to know what specific requirements apply to facilities *a priori*, and to include any such requirements in a general permit.
- *Review of the NOI and applicable watershed documents is the appropriate forum for deriving facility-specific WQBELs:* Once EPA receives an NOI for the new permit, the Agency will be better able to assess whether any more protective control measures are necessary. For instance, if an NOI indicates that the facility will discharge to an impaired waterbody with an EPA-approved or established TMDL, EPA can analyze the relevant information to determine whether any additional control measures are necessary to meet the permit's effluent limits and whether discharges will be consistent with the TMDL and WLAs. If the operator is unwilling or unable to implement such additional control measures (or other measures that would yield the same results), EPA may notify the

facility that it is not eligible for MSGP coverage and must instead apply for an individual permit. EPA may undertake a similar assessment process when facilities indicate that they are discharging to a waterbody designated as Tier 2 or 2.5 for antidegradation purposes.

Part 2.2.1 Water Quality Standards

This Part specifies that operators must control their discharge as necessary to meet applicable water quality standards of all affected states. EPA expects that compliance with the other conditions in the 2021 MSGP (e.g., the technology-based limits, corrective actions) will result in discharges that are controlled as necessary to meet applicable water quality standards. However, if an operator becomes aware, or EPA determines, that a discharge is not controlled as necessary such that the receiving water of the United States will not meet applicable water quality standards, corrective actions are required per Part 5. In addition, any time EPA determines that the discharge is not meeting the WQBEL (i.e., the discharge is not controlled as necessary such that the receiving water of the United States will not meet applicable water quality standards), the Agency may inform the operator that additional measures are needed, or require that the operator instead apply for an individual permit. The same applies to situations where additional measures are necessary for discharges to be consistent with an available WLA in an EPA-established or approved TMDL. In such situations, EPA will be available to help operators understand what they need to do to ensure that their discharges are consistent with any available WLAs.

Part 2.2.2 Discharges to Water Quality-Impaired Waters

This Part includes the requirements applicable to stormwater discharges to impaired waters. Operators will be considered to discharge to an impaired water if the first water of the United States discharged to is:

- Identified by a state, tribe, or EPA, pursuant to Section 303(d) of the CWA, as not meeting an applicable water quality standard, or;
- Addressed by an EPA-approved or established TMDL, or;
- Not in either of the above categories but the waterbody is covered by a pollution control program that meets the requirements of 40 CFR 130.7(b)(1).

Part 2.2.2.1 Existing Discharge to an Impaired Water with an EPA-Approved or Established TMDL

This Part specifies EPA may inform operators that additional requirements are necessary for the discharge to be consistent with the assumptions and requirements of an applicable TMDL and its WLA. Water quality-based effluent limits must be “consistent with the assumptions and requirements of any available wasteload allocation for the discharge,” pursuant to 40 CFR 122.44(d)(1)(vii)(B). Where an operator indicates on its NOI that a discharge is to one of the types of waters this Part covers, EPA will review the applicable TMDL to determine whether it includes provisions that apply to the individual discharger or its industrial sector. If so, EPA will determine whether compliance with the existing permit limits is sufficient or what additional measures are necessary for the discharge to be consistent with the WLA. Alternatively, EPA may decide an individual permit application is necessary. Because WLAs for stormwater discharges may be specified in many different formats, it has not always been clear to operators what they need to do to ensure that their discharge is consistent with available WLAs. EPA has thus established a process to ensure that these requirements are properly interpreted and communicated by EPA to the facility in a way that is implementable.

Part 2.2.2.2 Existing Discharge to an Impaired Water without an EPA-Approved or Established TMDL

This Part reiterates that facilities discharging to impaired waters without an EPA-approved or established TMDL must still control their discharges as necessary to meet water quality standards (as also required per Part 2.2.1). EPA expects an operator will achieve this if it complies with the other requirements in the permit, including monitoring requirements applicable to impaired waters discharges in Part 4.2.5. However, if information in the NOI, required reports, or from other sources indicates that discharges are not controlled as necessary to meet applicable water quality standards, EPA may inform an operator that it needs to implement additional measures on a site-specific basis to ensure the WQBEL is met, or, alternatively, of the need to apply for an individual permit.

Part 2.2.2.3 New Discharger or New Source to an Impaired Water

This Part requires an operator that is a "new source" or meet the definition of a "new discharger" (see Appendix A) that discharge to impaired waters to maintain for the permit term any control measures in good working order that it has implemented to meet the eligibility requirements of Part 1.1.6.2.

Part 2.2.3 Tier 2 Antidegradation Requirements for New Dischargers or Increased Discharges

This provision applies to new dischargers, new sources, and existing dischargers whose discharges directly to waters designated by a state or tribe as Tier 2 or 2.5 (defined in Appendix A) have increased. In general, any existing discharger required to notify EPA of an increased discharge consistent with Part 7.6 (i.e., a "planned changes" report) will be considered to have an increased discharge. For antidegradation purposes, such dischargers must implement any additional measures that EPA determines are necessary to comply with the permit's WQBEL, including the applicable state or federal antidegradation requirements (state and tribal water quality standards are required to contain an antidegradation policy pursuant to 40 CFR 131.12). EPA may also, per the applicable antidegradation policy, notify operators that they cannot be covered under the MSGP due to the unique characteristics of the discharge or the receiving waters, and that they must apply for an individual permit. Conversely, if EPA does not notify an operator that additional measures are needed to ensure compliance with antidegradation requirements, the operator is authorized to discharge under the permit. New dischargers to waters designated as Tier 3 outstanding national resource waters, as defined in 40 CFR 131.12(a)(3), are not eligible for coverage under the 2021 MSGP (see Part 1.1.6.3) and must apply for an individual permit.

Waters designated as Tier 2 by states and tribes can generally be described as follows: Tier 2 protects "high quality" waters -- waterbodies where existing conditions are better than necessary to support CWA section 101(a)(2) "fishable/swimmable" uses. Some states have designated waters using criteria which EPA considers to be more stringent than the federal Tier 2 designation, but less stringent than the federal Tier 3 designation. EPA calls such waters "Tier 2.5." Water quality may be lowered in Tier 2 or Tier 2.5 waters where "allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located." 40 CFR 131.12(a)(2). The process for making this determination is what is commonly known as "Tier 2 review." The essence of a Tier 2 review is an analysis of alternatives to the proposed new or increased discharge. 63 Fed. Reg. 36,742, 36,784 (col. 1)(July 8, 1998). In no case may water quality be lowered to a level that would interfere with existing or designated uses. 40 CFR 131.12(a)(1), 122.44(d). States have broad discretion in identifying Tier 2 waters. 63 Fed. Reg.

at 36,782-83. In addition, states and tribes may adopt what is known as a “significance threshold.” A “significance threshold” is a *de minimis* level of lowering of water quality below which the effects on water quality do not require Tier 2 review. *Id.* at 36,783.

Note about alternate antidegradation designations used by some states

Some states have adopted alternative approaches to designating Tier 2 or Tier 3 waters. These are collectively referred to as “Tier 2.5” waters since they fall between Tiers 2 and 3 in terms of characteristics and regulations supporting them. Tier 2.5 waters are commonly described as providing protection more stringent than Tier 2 but allowing some added flexibility that a Tier 3 outstanding national resource water would not. Refer to *Memorandum from William Diamond* (Former Director, Standards and Applied Science Division) to *Victoria Binetti* (Chief, Region III, Program and Support Branch), June 13, 1991.

Examples of Tier 2.5 waters exist in Massachusetts, which designates “outstanding resource waters” (ORWs). These waters have exceptional sociologic, recreational, ecological and/or aesthetic values and are subject to more stringent requirements under both the Massachusetts Water Quality Standards and the Massachusetts Stormwater Management Standards. ORWs include vernal pools certified by the Natural Heritage Program of the Massachusetts Department of Fisheries and Wildlife and Environmental Law Enforcement, all Class A designated public water supplies with their bordering vegetated wetlands, and other waters specifically designated. All of the provisions in the MSGP pertaining to Tier 2 waters apply equally to Tier 2.5 waters. And, where there is a reference in this Fact Sheet to Tier 2 waters, the reader should infer that EPA intends to include Tier 2.5 waters as well.

Part 2.3 Requirements Relating to Endangered Species, Historic Properties, and Federal CERCLA Sites

This Part requires operators to continue to implement any agreed-upon measures that were imposed as a condition or prerequisite for becoming eligible under Parts 1.1.4, 1.1.5, and/or 1.1.7 throughout the permit term. Any time an operator becomes aware, or EPA determines, that discharges and/or discharge-related activities are likely to adversely affect listed species and/or critical habitat, have an effect on historic properties, or that your facility discharges to a CERCLA Site in EPA Region 10 and listed in Appendix P after you have obtained coverage under this permit, EPA may impose additional measures on a site-specific basis, or require the operator to obtain coverage under an individual permit.

Part 3 Inspections

Part 3.1 Routine Facility Inspections

This Part was previously all one, larger section in the 2015 MSGP. For the 2021 MSGP, EPA has broken the section up into different parts (i.e., inspection personnel, areas that you must inspect, what you must look for during an inspection, and inspection frequency) to more clearly identify the requirements and improve permit readability for operators.

Part 3.1.1 Inspection Personnel

This Part requires that qualified personnel must perform the inspections. EPA clarifies that qualified personnel may be a member of the stormwater pollution prevention team, or if the qualified personnel is a third-party the operator hires (i.e., a contractor), at least one member of the stormwater pollution prevention team must participate in the inspection. Qualified personnel, as defined in Appendix A, are those who are knowledgeable in the principles and practices of industrial stormwater controls and pollution prevention, and who

possess the education and ability to assess conditions at the industrial facility that could impact stormwater quality, and the education and ability to assess the effectiveness of stormwater controls selected and installed to meet the requirements of the permit. The inspector must consider the results of visual and analytical monitoring (if any) for the past year when planning and conducting inspections.

Part 3.1.2 Areas that You Must Inspect

This Part requires operators to conduct inspections during normal facility hours in areas including, but not limited to, the following:

- Areas where industrial materials or activities are exposed to stormwater;
- Areas identified in the SWPPP that are potential pollutant sources (see Part 6.2.3);
- Areas where spills and leaks have occurred in the past 3 years;
- Discharge points; and
- Control measures used to comply with the effluent limits contained in the permit.

Part 3.1.3 What Qualified Personnel Must Look for During an Inspection

This Part requires that the qualified personnel examine or look out for during an inspection including, but not limited to, the following:

- Industrial materials, residue or trash that may have or could come into contact with stormwater;
- Leaks or spills from industrial equipment, drums, tanks and other containers;
- Offsite tracking of industrial or waste materials, or sediment where vehicles enter or exit the site;
- Tracking or blowing of raw, final or waste materials from areas of no exposure to exposed areas;
- Erosion of soils at your facility, channel and streambank erosion and scour in the immediate vicinity of discharge points, per Part 2.1.2.5;
- Non-authorized non-stormwater discharges, per Part 2.1.2.9;
- Control measures needing replacement, maintenance or repair.

EPA added erosion and non-stormwater discharges as issues the operator must look out for during an inspection, as these requirements are mentioned in other parts of the permit but were not specifically called out as regular concerns to look for. EPA includes them in the inspection section so that operators do not overlook these issues on a regular basis during inspections which may help them comply with the other applicable parts.

Part 3.1.4 Inspection Frequency

This Part requires the qualified personnel to conduct inspections at least quarterly (i.e., once each calendar quarter), or in some instances more frequently (e.g., monthly). Increased frequency (i.e., more than quarterly) may be appropriate for some types of equipment, processes and stormwater control measures, or areas of the facility with significant activities and materials exposed to stormwater. For instance, because vehicle and equipment maintenance and cleaning are particularly dirty activities, EPA recommends that they are inspected more frequently. In addition, properly functioning controls for these activities, such as oil-water separators, are very important for an effective stormwater program, and

should also be inspected more frequently (but in no case may be inspected less than quarterly). In another example, inspection of outdoor areas associated with regular industrial activity may benefit from more frequent inspections to ensure that the site is swept, garbage is picked up, drips and spills are cleaned, etc., on a regular basis. The operator must document the relevant inspection schedules in the SWPPP. During each calendar year, the operator must conduct at least one of the routine inspections during a period when a stormwater discharge is occurring. This inspection will enable operators to better identify sources of pollutants discharged via stormwater from the facility and to actively observe the effectiveness of control measures implemented to comply with effluent limits. Operators must also observe discharge points, as defined in Appendix A, during this inspection, or, if such discharge locations are inaccessible, inspect nearby downstream locations.

Part 3.1.5 Exceptions to Routine Facility Inspections for Inactive and Unstaffed Sites

Operators of inactive and unstaffed sites may invoke an exception from routine inspections if they eliminate all exposure of industrial activities and materials to stormwater and document this in the SWPPP. This waiver is available to all sectors covered under the 2021 MSGP. In addition, inactive and unstaffed mines covered under Sectors G, H, and J are eligible for this waiver even if all exposure has not been eliminated, due to the unique issues affecting such facilities, such as the remoteness of many mining sites. Facilities that make use of this waiver must still implement any necessary control measures to comply with applicable permit requirements and must still conduct an annual inspection.

Part 3.1.6 Routine Facility Inspection Documentation

This Part describes the specific information the operator must document for each routine inspection. Additionally, some industry sectors have specific routine inspection requirements, which are described in Part 8 of the permit for the relevant sectors. This Part specifies that the operator conduct any corrective action required as a result of a routine facility inspection consistent with Part 5 of the permit. This Part also clarifies that if a discharge visual assessment is performed during a routine facility inspection, the results of this assessment may be included in the same report as the routine facility inspection report. At a minimum, the operator must document the following for each routine inspection:

- The inspection date and time;
- The name(s) and signature(s) of the inspector(s);
- Weather information;
- All observations relating to the implementation of stormwater control measures at the facility, including:
 - A description of any stormwater discharges occurring at the time of the inspection;
 - Any previously unidentified stormwater discharges from and/or pollutant sources at the site;
 - Any evidence of, or the potential for, pollutants entering the stormwater drainage system;
 - Observations regarding the physical condition of and around all stormwater discharge points, including any flow dissipation devices, and evidence of pollutants in discharges and/or the receiving water;

- Any stormwater control measures needing maintenance, repairs, or replacement.
- Any additional stormwater control measures needed to comply with the permit requirements;
- Any incidents of noncompliance; and
- A statement signed and certified in accordance with Appendix B, Subsection 11.

Part 3.2 Quarterly Visual Assessment of Stormwater Discharges

This Part was previously all one, larger section in the 2015 MSGP. For the 2021 MSGP, EPA has broken the section up into different parts (i.e., visual assessment frequency, visual assessment procedures, and visual assessment documentation) to more clearly identify the requirements and improve permit readability for operators.

Quarterly visual assessments of stormwater discharges provide a useful and inexpensive means for operators to evaluate the effectiveness of their control measures. Although the visual examination cannot assess the chemical properties of the facility's stormwater discharges, the examination will provide meaningful results upon which the operator may act quickly. All industrial sectors covered by the 2021 MSGP must conduct these examinations.

Part 3.2.1 Visual Assessment Frequency

This Part requires that operators collect and visually examine a grab sample of stormwater discharges from each discharge point (except as noted in Part 3.2.4) once each quarter for the entire permit term. These samples are not required to be collected consistent with 40 CFR Part 136 procedures but must be collected in such a manner that the samples are representative of the stormwater discharge. Guidance on monitoring is available at https://www.epa.gov/sites/production/files/2015-11/documents/msgp_monitoring_guide.pdf.

Part 3.2.2 Visual Assessment Procedures

This Part requires the operator to visually assess the sample in a clean, colorless glass or plastic container for the presence of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of stormwater pollution. No analytical tests are required to be performed on these samples. The operator must take the grab samples within the first 30 minutes or as soon as practicable after the occurrence of an actual discharge from the site (including documentation of why sampling was not practicable within the first 30 minutes, if applicable). For storm events, operators must make the assessment on discharges that occur at least 72 hours (three days) from the previous discharge. The 72-hour (three-day) storm interval does not apply if the operator can document that less than a 72-hour (three-day) interval is representative for local storm events during the sampling period. Whenever the visual assessment shows evidence of pollutants discharged via stormwater, corrective action procedures must be initiated per Part 5.

Part 3.2.3 Visual Assessment Documentation

This Part requires the operator to document the results of the visual assessments in a report maintained onsite with the SWPPP. The report must include the sample location, date and time of both sample collection and visual assessment, personnel collecting the sample and performing visual assessments and their signatures, nature of the discharge (i.e., runoff or

snowmelt), results of the observations, and probable sources of any observed stormwater contamination.

When conducting a stormwater visual examination, the pollution prevention team, or individual team member, must attempt to relate the results of the examination to potential sources of stormwater contamination on the site. For example, should an oil sheen be observed, facility personnel (preferably members of the pollution prevention team) must conduct an inspection of the area of the site draining to the examined discharge to look for sources of spilled oil, leaks, etc. If a source can be located, then this information would necessitate that the operator immediately conduct a clean-up of the pollutant source, and/or to revise control measures to minimize the contaminant source.

Part 3.2.4 Exceptions to Quarterly Visual Assessments

This Part includes the same exceptions from the 2015 MSGP to these requirements in order to account for circumstances during which conducting quarterly visual assessments may not be feasible, namely during adverse (e.g., dangerous) weather conditions, or in parts of the country subject to climates with irregular stormwater discharges, or to large amounts of snowfall. Where these types of conditions prevent a facility from performing these assessments quarterly, operators may modify their assessment schedule such that the four assessments are conducted over the course of the year during periods when discharges, be it from rain or snow, actually occur and can be safely observed.

Operators of inactive and unstaffed facilities may invoke a visual assessment exception if they eliminate all exposure of industrial activities and materials to stormwater and document this in the SWPPP. This waiver is available to all sectors covered under the 2021 MSGP. In addition, inactive and unstaffed mines covered under Sectors G, H, and J are eligible for this waiver even if all exposure has not been eliminated due to the unique issues affecting such facilities, such as the remoteness of many mining sites. Facilities that make use of this waiver must still implement any necessary stormwater control measures to comply with applicable permit requirements.

Operators with two or more essentially identical discharge points may also elect to conduct a visual assessment at just one of these discharge points each quarter, but must perform their quarterly assessments on a rotating basis to ensure that they periodically observe each substantially identical discharge point (SIDP) throughout the period of permit coverage. If the operator identifies stormwater contamination through visual monitoring performed at a SIDP, the operator must assess and modify his/her control measures as appropriate for each discharge point represented by the monitored discharge point. This approach ensures that operators will assess discharges from the entire site over the term of the permit and will address any identified problems at all SIDPs where the problem may be occurring.

Part 4 Monitoring

This Part was previously Part 6 in the 2015 MSGP. For the 2021 MSGP, EPA has moved it to Part 4, so that operators read the monitoring requirements before the corrective action and Additional Implementation Measures (AIM) requirements in Part 5 and the SWPPP documentation requirements in Part 6.

This Part requires that operators collect, analyze, and document stormwater samples consistent with the procedures described in within Part 6 and Appendix B, Subsections 10 – 12, and any additional sector-specific or state/tribal-specific requirements in Parts 8 and 9, respectively. All monitoring data collected under this Part is publicly available.

Part 4.1 Monitoring Procedures

The 2021 MSGP requires certain facilities to sample and analyze their stormwater discharges as a way to assess the effectiveness of stormwater control measures in meeting the effluent limits contained in the permit. Analytical monitoring measures the concentration of a pollutant in a stormwater discharge. Analytical results are quantitative and therefore can be used to compare discharge results and to quantify the effectiveness of stormwater control measures, including identifying pollutants that are not being sufficiently controlled.

Part 4.1 identifies procedures for collecting samples and identifies where, when, and what to sample. These requirements are unchanged from those in the 2015 MSGP, with the addition of an explicit clarification that composite sampling is allowed for indicator monitoring and benchmark monitoring. These requirements are in addition to the standard permit conditions described in Appendix B, Subsection B.10.

Part 4.1.1 Monitored Discharge Points

The monitoring requirements in the permit apply to each stormwater discharge point associated with industrial activity, unless the operator qualifies for the substantially identical discharge point (SIDP) exemption as described in this section (except for numeric effluent limitation monitoring; see below). This SIDP provision provides facilities that have multiple stormwater discharge points with a means to reduce the number of discharge points that must be sampled and analyzed while still providing monitoring data that are indicative of discharges from each discharge point. This may result in a substantial reduction of resources required for a facility to comply with analytical monitoring requirements. To be considered a SIDP, the discharge point must have generally similar industrial activities, stormwater control measures, exposed materials that may significantly contribute pollutants to stormwater, and runoff coefficients of their drainage areas. When operators believe their facility has two or more discharge points that qualify as SIDPs, they may monitor only one of these discharge points and report that the quantitative data also apply to the other SIDPs. Operators must also document the location of each of the SIDPs and explain why the SIDPs are expected to discharge substantially identical stormwater, addressing each of the factors to be considered in this determination (industrial activities, control measures, exposed materials and runoff coefficients). Operators do not need advance EPA approval for this determination; however, EPA may subsequently determine that discharge points are not substantially identical and require sampling of additional discharge points. EPA clarifies in Part 4.1.1 that the allowance for monitoring only one of the SIDPs is not applicable to any discharge point with numeric effluent limitations. Operators must monitor each discharge point covered by a numeric effluent limitation as identified in Part 4.2.3.

Part 4.1.2 Commingled Discharges

This Part requires that if stormwater discharges associated with industrial activity commingle with discharges not authorized by the MSGP (e.g., unregulated stormwater or other permitted wastewater), then the operator must sample the stormwater discharge before it mixes with the other discharges when practicable. This provision is intended to ensure that monitoring results are representative of discharges covered under the permit and not indicative of other discharges from the facility. EPA acknowledges that in certain instances, such as when authorized stormwater discharges are commingled with other waste streams prior to on-site treatment, sampling only authorized stormwater may be impracticable.

Part 4.1.3 Measurable Storm Events

This Part specifies the characteristics of a measurable storm event as an event that results in a stormwater discharge from the permitted facility. By defining a storm event as one that results in a discharge, it affords the operator flexibility to sample during any storm event that produces a discharge, rather than having to ensure that a minimum magnitude is reached. The permit requires that operators collect samples from the discharge resulting from a storm event that occurs at least 72 hours (3 days) after a previous measurable storm event. The 72-hour (3-day) period is included in an attempt to eliminate monitoring discharges soon after a previous storm event may have washed away residual pollutants; operators may waive this requirement where they document that less than a 72-hour (3-day) interval is representative for local storm events during the season when sampling is being conducted. The permit allows for sampling of snowmelt in addition to stormwater. The 72-hour (3-day) requirement does not apply to snowmelt if the actual discharge is not clearly tied to a specific snow event (i.e., may be the accumulation from multiple events). The permit also specifies the type of documentation required to show consistency with this requirement.

Part 4.1.4 Sample Type

This Part specifies that operators must take a minimum of one grab sample, or alternatively a composite sample, from the measurable storm event being monitored. This will allow operators to make accurate comparisons of monitoring results to the corresponding benchmark threshold levels or effluent limitations.

For grab samples, operators must take the grab sample during the first 30 minutes of the discharge, except for snowmelt monitoring which has no 30-minute requirement since (1) discharge typically does not occur during a snow event (2) collecting a snowmelt sample within 30 minutes of commencement of discharge would very likely be impractical (because the snow will not have melted yet), and (3) the “first flush” effects of snowmelt are not as well defined (i.e., the time when the highest pollutant concentrations occur). If operators collect more than one grab sample, only those samples the operator collects during the first 30 minutes of discharge are to be used for performing any necessary analyses. If it is not possible to collect a grab sample during the first 30 minutes, facilities can take a grab sample as soon as possible, but the operator must document and keep with the SWPPP an explanation of why a grab sample during the first 30 minutes could not be collected.

EPA does not require composite sampling. EPA allows operators use composite sampling for indicator monitoring and benchmark monitoring if they choose to do so. Composite samples can provide a more comprehensive characterization of the facility's discharge than individual grab samples but can be costlier in some ways. EPA had allowed facilities to use composite sampling in previous versions of the MSGP, but in this 2021 MSGP EPA is explicitly allowing composite sampling except for those parameters that require a short holding time before processing, such as pH and those parameters that can degrade or transform quickly. All indicator monitoring and benchmark monitoring, whether collected via grab samples or composite samples, must be analyzed consistent with 40 CFR Part 136 analytical methods and, for benchmark monitoring, using test procedures with quantitation limits at or below benchmark thresholds for all benchmark parameters for which you are required to sample.

Composite sampling may be manual or automated and must be initiated during the first 30 minutes of the same storm event. For manual sampling, a facility would collect multiple samples during a storm event and combine portions of each sample – or aliquots – to form

a single composite sample that is then analyzed. For automated sampling, a facility would install an automatic sampler at the end of a flume, weir, or other similar device to direct the stormwater to a collection point. The sampler could be set up to collect samples on some interval, and, depending on the equipment, may be able to combine individual samples automatically into a composite sample. Automated samplers can also collect either flow-weighted or time-weighted composites. Using automated samplers can eliminate the need for a person to physically collect samples, which can be helpful if a storm happens outside of normal business hours. These samplers can lower labor costs and mitigate safety concerns but require setup and maintenance which would not otherwise be required if done manually.

Operators may also find that portable electronic meters, sensors, and data loggers used in the field can be a cost-effective way to monitor many types of parameters like turbidity, conductivity, temperature, dissolved oxygen, and pH in-situ. Where such in-situ measurements are taken, the composite sampling methodology shall be modified by simply calculating an average of all individual measurements, weighted by flow volume if applicable.

Part 4.1.5 Adverse Weather Conditions

When adverse weather conditions make sampling dangerous, storm event monitoring may be postponed until the next discharge event. This provision applies to serious weather conditions such as lightning, flash flooding, and high winds. This provision should not be used as an excuse for not conducting sampling under conditions associated with more typical storm events. Adverse weather conditions do not exempt operators from having to file a benchmark monitoring report in accordance with the corresponding reporting period. In many cases, sampling during a subsequent non-hazardous storm event may still be possible during the reporting period. Where this is not possible, operators are still required to report the inability to monitor as “no data” during the usual reporting period. This provision applies to all monitoring requirements of the permit.

Part 4.1.6 Facilities in Climates with Irregular Stormwater Discharges

This Part provides for the implementation of alternative monitoring schedules for facilities located in arid and semi-arid climates, or in areas subject to snow accumulation or prolonged freezing. Alternate monitoring schedules allow operators the flexibility to allocate their resources effectively to capture the required number of stormwater discharge events during the permit term. This flexibility will yield a more accurate characterization of pollutant concentrations in facility stormwater discharges during times of the year when precipitation is actually occurring, and during snowmelt discharges in areas subject to extended winter seasons and prolonged freezing. This special exception will provide EPA with more data that can be used to evaluate facility pollutant levels. Incumbent with this flexibility is operators' responsibility to identify those periods during which discharges are most likely to occur and establish a schedule distributing the required monitoring events during those periods.

Part 4.1.7 Monitoring Periods

This Part specifies that the monitoring requirements commence during the first full calendar quarter following either May 30, 2021 or following the date of authorization to discharge, whichever date comes later. For quarterly benchmark monitoring, this Part defines the calendar quarters during which monitoring must occur and also describes when the first monitoring quarter is to commence. Operators in climates with irregular stormwater discharges may define alternate monitoring periods, as described above, provided that

the operator keep documentation of the revised schedule with the SWPPP. Note that EPA's electronic discharge monitoring report (DMR) system, Net-DMR, will automatically generate pre-populated DMR forms based on the facility's sector and other information provided in the NOI form.

Part 4.1.8 Monitoring for Authorized Non-Stormwater Discharges

This Part states that operators are only required to monitor authorized non-stormwater discharges in Part 1.2.2 when they are commingled with stormwater discharges associated with industrial activity.

Part 4.1.9 Monitoring Reports

This Part specifies that monitoring data must be reported using EPA's electronic DMR tool, Net-DMR, as described in Part 7.3 (unless a waiver from electronic reporting has been granted from the applicable EPA Regional Office, in which case a paper DMR form may be submitted).

Part 4.2 Required Monitoring

The 2021 MSGP contains six types of monitoring requirements:

- Indicator monitoring (Part 4.2.1)
- Benchmark monitoring (Part 4.2.2);
- Effluent limitations monitoring (Part 4.2.3);
- State- or tribal-specific monitoring (Part 4.2.4);
- Impaired waters monitoring (Part 4.2.5); and
- Other monitoring required by EPA (Part 4.2.6).

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

The frequency of monitoring depends on which of these six types of monitoring applies to each permitted facility. If any of these monitoring requirements overlap, operators may use a single sample to comply with those overlapping requirements. The permit also specifies that when an effluent limitation is lower than the benchmark threshold for the same pollutant,⁶ the Additional Implementation Measure (AIM) trigger is based on an exceedance of the effluent limitation, which would subject the facility to the AIM requirements of Part 5.2. EPA reminds operators however that benchmark thresholds are not effluent limitations. See Part 4.2.2.

Per Part 1.3.7, in the event that the permit is administratively continued, monitoring requirements remain in force and effect at their original frequency during any continuance for operators that were covered prior to permit expiration. In the event that monitoring results are unable to be electronically reported in NetDMR, operators must maintain monitoring results and records with their SWPPP.

⁶ Note that benchmarks thresholds are not effluent limitations, see Part 4.2.2 of the Permit.

Part 4.2.1 Indicator Monitoring**Part 4.2.1.1.a Indicator Monitoring for pH, TSS, and COD**

The 2021 MSGP requires “report-only” indicator monitoring for pH, Total Suspended Solids (TSS), and Chemical Oxygen Demand (COD) for operators in subsectors without benchmark monitoring requirements: B2, C5, D2, E3, F5, I1, J3, L2, N2, O1, P1, R1, T1, U3, V1, W1, X1, Y2, Z1, AB1, AC1, and AD1. Indicator monitoring for these three parameters will provide a baseline and comparable understanding of industrial stormwater discharge quality, potential water quality problems, and stormwater control measure effectiveness for these operators.

These three parameters are appropriate as broad, low-cost indicators of stormwater pollution, as recommended in the 2019 National Research Council (NRC) study:

- “pH detects excess acidic or alkaline substances in the water, and pH excursions indicate corrosive (acidic or basic) and/or toxic concerns. Stormwater discharges that are excessively polluted may not exhibit problems with respect to pH. However, pH excursions that are highly acidic or highly alkaline and do not fall into the benchmark range (6.0–9.0) can be indicative of a major polluting event or process failure and can be impactful to receiving waters. Unexpected pH values also can indicate that a stormwater treatment system is not operating properly” (NRC, 27-28).
- “Total Suspended Solids (TSS) is a measure of suspended particulate matter in a water sample. Particulate matter can result from erosion of industrial soils, deposited particulate matter on the drainage area, erosion/corrosion of materials present on the site, and general overall site cleanliness. TSS also provides information about possible high concentrations of numerous other pollutants that will partition onto particulate matter, including phosphorus, many heavy metals, and many hydrophobic organic chemicals” (NRC, 28).
- “Chemical Oxygen Demand (COD) is a surrogate measure of organic pollutants in water (through measurement of oxygen demand). It is a conventional water quality parameter with established industrial stormwater benchmarks. In addition to the measure of oxygen demand, high COD can also be indicative of oils and hydrocarbon pollution and, as with TSS, can be an indicator of overall site cleanliness. Increases in COD could also indicate problems with the treatment SCM effectiveness, including the need for maintenance” (NRC, 27).

The NRC study states that pH, TSS, and COD are direct measures of water quality and can be indicators of broader water quality problems and the presence of other pollutants. In addition, the study says these parameters can indicate absence, neglect, or failure of a stormwater control measure, which can lead to high concentrations of potential pollutants (NRC, 28).

Although the NRC study recommended that EPA implement some type of “industry-wide” or “universal” benchmark monitoring for these parameters for all sectors, for the 2021 MSGP, EPA is requiring indicator monitoring for pH, TSS, and COD as “report-only” for operators in the 22 subsectors without sector-specific benchmarks. Indicator monitoring for these subsectors is appropriate, given that the 2015 MSGP only required sector-specific benchmark monitoring for around 55 percent of MSGP subsectors; the other 45 percent of subsectors did not have any chemical-specific analytical benchmark monitoring, meaning these operators were only conducting visual monitoring and collecting little, if any, numeric data on performance of their stormwater control measures to further ensure compliance with water quality standards. The 2021 MSGP suspended benchmark monitoring for iron,

resulting in the elimination of benchmark monitoring requirements for subsectors L2 and O1. With these changes, 22 subsectors under the 2021 MSGP without sector-specific benchmark monitoring, around 40 percent of total facilities, are now required to conduct indicator monitoring for pH, TSS, and COD.

Indicator monitoring for applicable operators is required on a quarterly basis for the entirety of permit coverage as “report-only.” Unlike sector-specific benchmark monitoring, indicator monitoring cannot be discontinued at any time during permit coverage. Indicator monitoring also does not have a threshold or baseline value for comparison, therefore no follow-up action is triggered or required based on the sampling results in this part. The requirement in Part 2.2.1 to meet applicable water quality standards still applies. Operators may find it useful to evaluate and compare indicator monitoring data over time to identify any fluctuating values and why they may be occurring, and further inform any revisions to your SWPPP/SCMs if necessary. Examples of possible appropriate reviews and revisions to the SWPPP/SCMs based on high indicator monitoring values include: reviewing sources of pollution or any changes to performed industrial activities and processes; reviewing spill and leak procedures, and/or non-stormwater discharges; conducting a single comprehensive clean-up, implementing a new stormwater control measure, and/or increasing inspections. EPA encourages operators to proactively use their sampling results to understand where the SCMs are working if values are low and improve their stormwater management program if values are high, relative to other samples. Based on indicator monitoring data collected and analyzed under the 2021 MSGP, which will be publicly available as with all other monitoring data under the MSGP, EPA may evaluate whether sector/subsector-specific benchmarks are warranted in a future proposed permit. For the next proposed MSGP, EPA will also evaluate the indicator monitoring data to inform any future proposed changes in this requirement, including applicability and frequency.

EPA emphasizes that indicator monitoring parameters are neither benchmark monitoring nor numeric effluent limitations. However, failure to conduct and report indicator monitoring is a permit violation. This part does not replace or modify any requirement for operators that must monitor for pH, TSS, and/or COD under any other type of required monitoring, including as a sector-specific benchmark, annual monitoring for impaired waters, and annual effluent limitations guidelines monitoring.

Part 4.2.1.1.b Indicator Monitoring for PAHs

Background

The 2021 MSGP requires indicator monitoring for PAHs for the following operators, given the types of activities they may conduct: operators in all sectors with stormwater discharges from paved surfaces that will be initially sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit; operators in sectors A (facilities that manufacture, use, or store creosote or creosote-treated wood in areas that are exposed to precipitation), C (SIC Code 2911), D, F, H, I, M, O, P (SIC Codes 4011, 4013, and 5171), Q (SIC Code 4491), R, and S. Facilities in the specified sectors must monitor for PAHs bi-annually (i.e., sample twice per year) in their first and fourth years of permit coverage. EPA plans to use the monitoring data collected to conduct an initial quantitative assessment of the levels of PAHs in industrial stormwater, further identify industrial activities with the potential to discharge PAHs in stormwater, and inform future consideration of PAH benchmark monitoring for sectors with the potential to discharge PAHs in stormwater.

Polycyclic Aromatic Hydrocarbons

PAHs are a group of chemicals that are persistent in the environment. PAHs have both natural and man-made sources. Natural sources include wildfires, volcanic eruptions, and degradation of materials within sediments and fossil fuels. Man-made sources include the incomplete burning of organic materials like coal, oil, gas, wood, and garbage, vehicle exhaust, asphalt, coal-tar sealcoat, and creosote (ATSDR, 2011; EPA, 2009; CDC, 2009). According to the U.S. Department of Health and Human Services, coal tars and coal-tar pitches are known to be human carcinogens based on studies in humans and 15 PAHs are listed as “reasonably anticipated to be human carcinogens” (2014).

PAHs are listed on EPA’s Toxic Pollutants list at 40 CFR 401.15. The Toxic Pollutant List was developed in 1976 and subsequently added to the CWA by Congress in 1977. The list was intended to be used by EPA and states as a starting point to ensure that Effluent Guidelines regulations, water quality criteria and standards, and NPDES permit requirements addressed the problems of toxics in waterways (EPA, 2020).

The Toxic Pollutants list consisted of broad categories of pollutants rather than specific, individual pollutants. Therefore, EPA developed the Priority Pollutant List in 1977 to make implementation of the Toxic Pollutant List more practical for water testing and regulatory purposes. The list of 126 Priority Pollutants can be found in 40 CFR Part 423 (Appendix A). Of the hundreds of known PAHs, EPA has designated 16 as Priority Pollutants: naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, benzo[g,h,i]perylene, indeno[1,2,3-c,d]pyrene, and dibenz[a,h]anthracene.

Many PAHs can have impacts on human health and the environment. Several PAHs have been shown to be extremely toxic to and bioaccumulate in fish and aquatic invertebrates, and are known or probable human carcinogens (EPA Integrated Risk Information System (IRIS) 2014; NRC, 2019; Scoggins, 2007; U.S. Department of Health and Human Services, 2014).

One study in coastal South Carolina performed ecological and human health screening assessments of sediment data from two other studies (Weinstein, 2010). The authors calculated ratios using the mean individual PAH levels in the pond sediments to the published preliminary remediation goals (PRG) for that individual PAH (PRG-HQ). Values less than 1 were considered health protective of human exposures. The authors found that four commercial ponds, one low density residential pond, and one golf course pond had PRG-HQ values greater than one for several carcinogenic PAHs and suggested that further study was warranted.

Although EPA does not have national recommended aquatic life criteria for individual or total PAHs, some states have developed criteria for certain individual PAHs (e.g., Illinois, Kansas, Colorado, and Arizona). In addition, EPA has not required any PAH benchmark monitoring requirements for any sector covered under the MSGP. The NRC study recommended that EPA collect data or require monitoring related to PAHs in the MSGP to determine an adequate surrogate or if additional PAH monitoring is warranted (NRC, 2019).

Indicator Monitoring for PAHs Related to the Use of Coal-Tar Sealcoat

Some industrial facilities covered under the MSGP use coal-tar sealcoat to initially seal or to re-seal their paved surfaces where industrial activities are located. These surfaces could potentially release PAHs into the environment when exposed to precipitation resulting in stormwater discharges of PAHs. Operators who, during coverage under the permit, use coal-tar sealcoat to initially seal or to re-seal their paved surfaces where industrial activities

are located and thereby may discharge PAHs via stormwater, must conduct indicator monitoring for PAHs.

PAHs and Coal-tar Sealcoat

Coal-tar sealcoat is a type of sealant used to maintain and protect driveway and parking lot asphalt pavement. Coal-tar sealcoat typically contains 20 to 35% coal tar pitch which is made up of 50% or more PAHs by weight (Mahler et al., 2005).

Coal-tar sealcoat, like other pavement, is exposed to the elements and undergoes weathering and abrasion that can cause dust and particles containing PAHs to break off. Dust and particles containing PAHs can then be picked up by stormwater and transported to stormwater control measures or directly discharged to receiving waters where it can accumulate in sediments and soils. Manufacturers recommend reapplying the sealants every two to three years due to wear/abrasion ([Link](#)).

Studies have observed sub-lethal effects of coal-tar sealcoats particles in sediments for both amphibians (Bommarito et al., 2010; Bryer and Willingham, 2006) and benthic macroinvertebrates (Scoggins et al., 2007). Studying cell lines from specific organisms can help to identify effects of treatments such as cell-level genetic abnormalities and damage under controlled conditions. A study examined non-transformed rainbow trout Waterloo1(RTS-W1) fish liver cell line that was exposed to runoff collected up to 36 days after coal-tar sealcoat application. This study found the runoff to be genotoxic, meaning that damage to cell-leveled genetic material was caused by exposure and significant genotoxicity occurred with a 1:100 dilution of runoff (Kienzler et al., 2015).

As referenced in Van Metre et al. (2009), anecdotal reports indicate that use of coal-tar sealcoat is higher east of the Continental Divide than west of the Continental Divide, where use of asphalt-based sealcoat is higher. A geographical trend in the use of coal-tar sealcoat would be consistent with the fact that integrated steel and coke processing industries (of which coal tar pitch is a by-product) were historically located east of the Continental Divide for resource and economic reasons during the 19th and 20th centuries. More prevalent use of coal-tar sealant in the east and limited use in the west may also explain why watershed studies from the east and west coasts show disparate PAH loading concentrations from coal-tar sealant.

On the east coast, the New York Academy of Sciences completed a report in 2007 on pollution prevention and management strategies for PAHs in the New York/New Jersey Harbor (Valle et al., 2007). Surfaces sealed with refined coal tar-based sealants are listed as 1 of 11 major sources that each contribute more than 2 percent of the total PAHs released to air, water, or land. Using yields calculated in Mahler et al. (2005) and estimates of the amount of sealed surface area in the watershed, the authors estimated that between 900 and 5800 kg of particulate-bound PAHs were released per year from surfaces sealed with coal-tar sealants in New York/New Jersey Harbor. The study also acknowledges that these estimates are likely on the low end given that "certain weather conditions, not captured in the estimated yields, will induce degradation of the sealant, and that volatilization of PAHs is not captured by this approach."

West of the continental divide, the Washington State Department of Ecology conducted a watershed-wide analysis in the Puget Sound to estimate toxic pollutant loadings through major pathways such as surface water runoff and to provide data on pollutant concentrations in surface runoff from different land cover types, including commercial/industrial. This analysis found that combustion emissions and releases from creosote-treated wood account for most of the PAH release in the Puget Sound basin.

Coal-tar sealant accounted for less than 1 percent of PAH releases as compared to other sources, ranging from 0.9 to 1.7 tons per year, or approximately 816 to 1,542 kg/year (Ecology and King County, 2011).

Studies on Stormwater, PAHs, and Coal-tar Sealcoat

Primary Data Collection

Researchers often collect stormwater and other water and soil samples in the field and perform bench scale studies in the laboratory to assess the type and contribution of pollutants to the environment. These primary data studies have evaluated the contribution of PAHs from coal-tar sealcoat. Several studies have found that PAHs can be significantly elevated in stormwater discharged from coal-tar sealed parking lots and other areas compared to stormwater from areas that do not use coal-tar sealants. Specifically, an EPA simulation study of stormwater included both bench-scale panels and full-scale test plots, which included three test plots with different or no surface treatments: coal tar emulsion sealant, asphalt emulsion sealant, and unsealed. The results of this study indicated that coal-tar sealcoat releases 100 to 1,000 times more PAHs than other types of surfaces (Rowe and O'Connor, 2011). A separate study collected simulated runoff in Austin, Texas, from 13 urban parking lots. Six parking lots were sealed with coal-tar sealcoat, three parking lots were sealed with asphalt-based sealcoat, two parking lots were unsealed asphalt pavement, and two parking lots were unsealed concrete pavement. This study found that the amount of PAHs in stormwater from coal-tar sealed parking lots was 65 times higher compared to stormwater from unsealed parking lots. The study also found that concentrations for total dissolved PAH were about an order of magnitude greater in samples from the three coal-tar-sealed test plots than concentrations in samples from the two asphalt-sealed test plot, which in turn were about an order of magnitude greater than those from the unsealed test plot (Mahler et al., 2005).

Several studies have evaluated the concentration of PAHs in either stormwater runoff or receiving stream sediments in relation to when the coal-tar sealcoats were applied. One of these studies indicated that the concentrations of PAHs in stormwater runoff are highest following the application of coal-tar sealcoat and decrease as continued weathering of the sealcoat occurs (Rowe and O'Connor 2011). Two other studies analyzed PAHs in sediment samples collected before Austin, Texas, banned the use of coal-tar sealants and after the ban took effect. The first, studying the impacts two years after the ban took effect, found no significant difference before and after the ban (DeMott et al., 2010), but the second, studying the impacts six to eight years after the ban, observed decreases of PAHs in the sediment (Van Metre and Mahler, 2014).

Modeling Studies

Scientists have also used various analyses related to source apportionment to determine the relative contributions of various sources of PAHs. Many source apportionment studies have confirmed the results of primary data studies that where coal-tar sealcoat is used, PAHs are present at elevated levels. A study looked at PAHs in 40 urban lakes across the U.S. using a contaminant mass-balance receptor model based on discussed assumptions in the study and found that on average, coal-tar sealcoat is the largest source of PAHs (Van Metre and Mahler, 2010). Norris and Henry (2019) also analyzed previously collected sediment data from both the Lady Bird Lake and the 40 lakes studies (Van Metre and Mahler, 2010; Van Metre and Mahler, 2014). They used these data to apportion sources of PAHs using the Unmix Optimum (Unmix O) receptor model. The results of both the Unmix O and chi-square approach found that coal-tar sealant contributes to lake sediments and

over 80% of PAHs contained in lake samples from the eastern and central region of the United States were from coal-tar sealants (Norris and Henry, 2019). This study is consistent with results in Van Metre and Mahler (2010) and Van Metre and Mahler (2014) that coal-tar sealcoat contributes PAHs into the environment and that coal-tar sealcoat's contribution to sediments decreased after Austin banned the use of coal-tar sealcoat in 2006. The Norris and Henry (2019) study alone was not integral to EPA's proposed inclusion of the eligibility requirement on the use of coal-tar sealcoat. In addition, PAH discharges from coal-tar sealcoat may accumulate in the sediment of stormwater ponds. Dredging of accumulated sediments in stormwater ponds is a key maintenance activity and disposal of dredged PAH-contaminated sediment may be expensive (Mahler et al., 2012).

Although certain modeling studies have shown that PAHs from coal-tar sealant are present in stormwater at elevated levels, there has been some acknowledgement that the variability of PAH concentrations in different sources is a challenge for all source apportionment models because these models assume PAH source compositions are relatively constant, even though source composition can change between the source and where the concentration measurement is taken (the receptor) (Norris and Henry, 2019). A recent letter to the editor has raised questions on the validity of the source profiles used in some source apportionment studies (O'Reilly and Edwards, 2019), while another noted the challenges with PAH source apportionment to coal-tar sealcoat given the variety of PAH sources in the environment (Zou et al., 2015). A review of existing literature on the potential effects of runoff coal-tar sealcoat on aquatic organisms concluded that although "an abundance of literature has shown that PAHs cause mutagenicity, genotoxicity, and development toxicity," other research studying the particular effects of coal-tar sealcoat in runoff in controlled laboratory tests may overestimate potential adverse effects in the field (Driscoll et al., 2019).

Potential Product Alternatives

EPA has identified potential alternatives (i.e., similar product use and cost) to coal-tar sealcoat including asphalt emulsion sealants and acrylic sealants. These alternatives can achieve similar performance but contain fewer PAHs, and their use is expected to result in a lesser amount of PAHs discharged in industrial stormwater. For example, asphalt sealant has negligible PAH levels and is considered significantly less harmful to water quality and the environment than coal-tar based sealant (USGS, 2019). Given the comparable costs among products, EPA assumes that most facilities who intend to use coal-tar sealcoat will be able to find a product alternative at negligible cost difference yet with similar performance (see Section B.1 of the Cost Analysis for this proposed permit in the docket). Other product substitute examples like pervious concrete, permeable asphalt and paver systems do not require sealants and allow stormwater to infiltrate, resulting in decreased discharge, but may not be appropriate for use with all industrial activities.

Indicator Monitoring for PAHs for Specific Sectors

Some industrial facilities covered under the MSGP use, handle, or generate chemicals and products that could potentially release PAHs into the environment when exposed to precipitation that results in a stormwater discharge. EPA reviewed the industrial stormwater program's fact sheet series, performed a literature review of industrial activities that have the potential to contribute PAHs in stormwater, and conducted an industry analysis of industrial process wastewater discharges. These reviews related to industrial activities informed the 2021 MSGP requirements for specific sectors to perform indicator monitoring for PAHs. A summary of these analyses is provided below, followed by EPA's determination of the sectors requiring indicator monitoring based on these analyses.

Review of Industrial Stormwater Fact Sheet Series

EPA's industrial stormwater fact sheet series identifies common activities, pollutant sources, and associated pollutants for each of the 29 sectors permitted under the MSGP. EPA reviewed the fact sheets for activities that list the following as associated pollutants that may contain petroleum hydrocarbons:

- Ash
- Benzene
- Coal
- Diesel
- Engine oil
- Fuel
- Fuel additives
- Gasoline
- Grease
- Hydraulic fluid
- Hydrocarbons
- Jet fuel
- Liquid polymer
- Lubricants
- Naphthalene
- Oil and Grease
- Oil
- PAHs
- Petroleum hydrocarbons
- Phenanthrene
- Lubricants
- Tire rubber
- Toluene
- Waxes
- Xylenes

Based on information in the industrial stormwater fact sheet series, the most common industrial activities with the potential for petroleum hydrocarbon exposure to precipitation that could result in the discharge of PAHs in stormwater include the following: materials loading and unloading, storage, handling, and waste management and disposal (18 sectors); equipment/vehicle maintenance, repair, and storage (24 sectors); vehicle fueling (17 sectors); and storage of materials in above-ground tanks (7 sectors). EPA identified other industrial activities with potential for petroleum hydrocarbon exposure, but because of these activities' relative infrequency and association with a limited number of sectors, EPA did not include them in this requirement.

Literature Review

Based on the most common industrial activities identified above that have the potential for petroleum hydrocarbon exposure, EPA performed a literature review for each industrial activity to determine the potential to discharge PAHs in stormwater. EPA also reviewed literature for certain sectors with the highest identified number of industrial activities with petroleum hydrocarbon exposure to precipitation or that were suspected of having the potential for exposure based on the materials used, manufactured, or stored on-site. In addition, EPA reviewed references provided in public comments that were submitted on the proposed 2020 MSGP. The literature review is included in the docket for this permit (ID# EPA-HQ-OW-2019-0372).

Industry Analysis

EPA also conducted an industry analysis that looked at sectors/subsectors included in the 2015 MSGP that may have petroleum hydrocarbons at their facilities that could be exposed to stormwater. The analysis looked at industrial process wastewater discharges as a proxy to identify industries that may use, handle, or generate PAHs. EPA evaluated 18 PAHs identified as priority pollutants subject to the required water quality criteria in the National Toxics Rule (NTR) at 40 CFR 131.36. Note that the data evaluated were for industrial process wastewater discharges, not stormwater. However, these data are useful to identify and further evaluate industries that may use, handle, or generate PAHs on site. The full analysis is included in the docket for this permit (ID# EPA-HQ-OW-2019-0372). EPA identified the following subsectors and related activities that have total PAH loadings for industrial process wastewater discharges of greater than 1 kg/year:

Table 4-1 PAH Loadings for Industrial Process Wastewater Discharges

Applicable MSGP Sub-Sector	Activity Represented	Contributing SIC Codes ¹	Estimated PAH Pollutant Load in Industrial Processed Wastewater (kg/year)
C5	Industrial Organic Chemicals; Petroleum Refining	2865, 2869, 2911	131,073 ²
Q1	Water Transportation Facilities	4491, 4493	6,351 ³
C4	Plastics Materials and Synthetic Resins, Synthetic Rubber, Cellulosic and Other Manmade Fibers Except Glass	2821, 2822	3,270 ⁴
F1	Steel Works, Blast Furnaces, and Rolling and Finishing Mills	3312, 3313, 3317	628 ⁵
C2	Industrial Inorganic Chemicals	2812, 2813, 2819	491 ⁶
C3	Soaps, Detergents, and Cleaning Preparations; Perfumes, Cosmetics, and Other Toilet Preparations	2843	287
Y2	Miscellaneous Plastic Products; Musical Instruments; Dolls, Toys, Games, and Sporting and Athletic Goods; Pens, Pencils, and Other Artists' Materials; Costume Jewelry, Costume Novelties, Buttons, and Miscellaneous Notions, Except Precious Metal; Miscellaneous Manufacturing Industries	3081	282
P1	Railroad Transportation; Local and Highway Passenger Transportation; Moto Freight Transportation and Warehousing; United States Postal Service; Petroleum Bulk Stations and Terminals	4011, 4013, 4213, 4226, 4231, 5171	253 ⁷
A2	Wood Preserving	2491	251
A1	General Sawmills and Planing Mills	2421	206
AC1	Computer and Office Equipment; Measuring, Analyzing, and Controlling Instruments; Photographic and Optical Goods, Watches, and Clocks; Electronic and Electrical Equipment and Components, Except Computer Equipment	3624	164
D2	Miscellaneous Products of Petroleum and Coal	2992, 2999	90
C1	Agricultural Chemicals	2873	46
I1	Crude Petroleum and Natural Gas; Natural Gas Liquids; Oil and Gas Field Services	133, 1321, 1389	11 ⁸
M1	Automobile Salvage Yards	5012	6.9
S1	Air Transportation Facilities	4581	4.9
F5	Primary Smelting and Refining of Nonferrous Metals; Secondary Smelting and Refining of Nonferrous Metals; Miscellaneous Primary Metal Products	3334, 3399	3.7 ⁹
AB1	Industrial and Commercial Machinery, Except Computer and Office Equipment; Transportation Equipment Except Ship and Boat Building and Repairing	3523, 3537, 3713, 3714, 3721, 3724, 3743	1.4 ¹⁰

1. Applicable SIC Codes with reported total PAH loadings used in calculating the estimated total annual pollutant load.
2. Petroleum refining (SIC Code 2911); and industrial organic chemicals, not elsewhere classified (SIC Code 2869) accounts for most of the loading identified in this sector (130,571 kg/year and 496 kg/year, respectively).
3. Marinas (SIC Code 4491) account for most of the estimated loading identified in this sector (6,379 kg/year).
4. Plastics materials, synthetic resins, and nonvulcanizable elastomers (SIC Code 2821) accounts for most of the estimated loading identified in this sector (3,265 kg/year).
5. Steel works, blast furnaces (including coke ovens), and rolling mills (SIC Code 3312); and electrometallurgical products, except steel (SIC Code 3313) account for most of the estimated loading identified in this sector (589 kg/year and 39 kg/year, respectively).
6. Industrial inorganic chemicals, not elsewhere classified (SIC Code 2819); and alkalies and chlorine (SIC Code 2812) account for most of the estimated loading identified in this sector (440 kg/year and 51 kg/year, respectively).
7. Petroleum bulk stations and terminals (SIC Code 5171); railroads, line-haul operating (SIC Code 4011); and special warehousing and storage, not elsewhere classified (SIC Code 4226) account for most of the estimated loading identified in this sector (146 kg/year, 85 kg/year, and 22 kg/year, respectively).
8. Oil and gas field services, not elsewhere classified (SIC Code 1389); and crude petroleum and natural gas (SIC Code 1311) account for most of the estimated loading identified in this sector (9 kg/year and 2 kg/year, respectively).
9. Primary production of aluminum (SIC Code 3334) accounts for most of the estimated loading identified in this sector (3 kg/year).
10. Aircraft engines and engine parts (SIC Code 3724) account for most of the estimated loading identified in this sector (0.9 kg/year).

Sectors with Potential for PAH Exposure to Precipitation Resulting in Stormwater Discharges

Based on the industrial stormwater fact sheet series review, literature review, and industry analysis, EPA determined that the following sectors have the potential to contribute PAHs in stormwater discharges. At this point, however, EPA has determined that additional information is necessary to quantify the levels of PAHs in industrial stormwater, further identify industrial activities with the potential to discharge PAHs in stormwater, and inform future consideration of PAH benchmark monitoring for sectors with the potential to discharge PAHs in stormwater.

Sector A: Timber Products

The industrial stormwater fact sheet series identifies the following industrial activities with potential for petroleum hydrocarbon exposure to precipitation that could result in the discharge of PAHs in stormwater for Sector A:

- Equipment/vehicle maintenance, repair, and storage.
- Vehicle fueling.
- Wood preservation activities and chemicals and preserved wood storage.
- Wood assembly/fabrication activities and final fabricated wood product storage.

Coal-tar creosote is a commonly used wood preservative derived from coal-tar and is known to contain high levels of PAHs (ATSDR, 2002). Several studies have shown that facilities that use or previously used creosote to treat wood and the storage of creosote-treated wood have the potential to contribute to PAH contamination of soils and stormwater discharges (Van Zuydam, 2009; Ragan, 2011; Pietari, 2016; Konkler, 2020; Valle, 2007; Hussain, 2018; Brooks, 2004; Meador, 1995; Marcotte, 2014; Niera, 2016). Due to the potential for PAH contamination of stormwater from creosote, the 2021 MSGP requires indicator monitoring for PAHs for Sector A facilities but is limited to those facilities that

manufacture, use, or store creosote or creosote-treated wood in areas that are exposed to precipitation.

Sector C: Chemicals and Allied Products

The industrial stormwater fact sheet series identifies the following industrial activities with potential for petroleum hydrocarbon exposure to precipitation that could result in the discharge of PAHs in stormwater for Sector C:

- Materials loading and unloading, storage, handling, and waste management and disposal.
- Equipment/vehicle maintenance, repair, and storage.
- Vehicle fueling.

Petroleum refineries process raw crude oil into fuel products (e.g., gasoline, fuel oils, jet fuels, coke and kerosene), nonfuel products (e.g., asphalt and road oil, lubricants), and petrochemicals and petrochemical feedstocks. Spills or leaks of crude oil and petroleum products have been documented as sources of PAH contamination in surface waters (Mahler, 2001; Zychowski, 2017; Troisi, 2016; Meador, 1995; Collier, 2013; Albers, 2003; Hussain, 2018). One study showed elevated levels of PAHs in agricultural soils near an oil refinery (Bayat, 2015), while others observed elevated PAHs in waters downstream of refineries (Nascimento, 2017; Stein, 2006).

Additionally, EPA's industry analysis indicated that Subsector C5 has a total estimated PAH pollutant load in industrial wastewater of 131,073 kg/year, the highest estimated PAH pollutant loading of the MSGP subsectors evaluated. Petroleum refining (SIC Code 2911) accounts for most of the estimated industrial wastewater loading identified in this sector (130,571 kg/year).

Based on the potential for spills and leaks of crude oil and petroleum products and the observed elevated levels of PAHs in surface waters downstream of refineries, the 2021 MSGP requires indicator monitoring for PAHs for Sector C facilities with SIC Code 2911 (petroleum refineries).

Sector D: Asphalt Paving and Roofing Materials and Lubricants

The industrial stormwater fact sheet series identifies the following industrial activities with potential for petroleum hydrocarbon exposure to precipitation that could result in the discharge of PAHs in stormwater for Sector D:

- Equipment/vehicle maintenance, repair, and storage.
- Vehicle fueling.
- Outdoor stockpiling of materials.
- Storage of materials in above-ground storage tanks.
- Transport of materials by a conveyor or front-end loader.

Petroleum-based products that have high concentrations of PAHs, including asphalt and coal-tar pitch, are used as raw materials to produce paving and roofing materials (ATSDR, 2002). Coal-tar sealcoat, which may be produced at some Sector D facilities, typically contains 20 to 35% coal-tar pitch which is made up of 50% or more PAHs by weight (Mahler et al., 2005). Based on the potential for spills and leaks of petroleum products used for the manufacturing of asphalt paving materials, roofing materials, and lubricants, and the potential for petroleum hydrocarbon exposure to precipitation from the outdoor stockpiling

of raw materials and/or finished products, the 2021 MSGP requires indicator monitoring for PAHs for Sector D facilities.

Sector F: Primary Metals

The industrial stormwater fact sheet identifies the following industrial activities with potential for petroleum hydrocarbon exposure to precipitation that could result in the discharge of PAHs in stormwater for Sector F:

- Materials loading and unloading, storage, handling, and waste management and disposal.
- Equipment/vehicle maintenance, repair, and storage.
- Vehicle fueling.
- Casting and finishing products.
- Furnace operations and pollution control equipment.

Coal-tar, coal-tar pitch, and coal-tar pitch volatiles are used or produced in several industries, including aluminum smelting and coking (ATSDR, 2002). Aluminum smelters have been identified as potential sources of PAHs in stormwater (Pietari, 2016). Other sources have linked PAH pollution in surface waters and soils to aluminum smelters (Martineau, 2012; Borgulat, 2018; Rengarajan, 2015). Coke production at iron and steel facilities has also been identified as a source of PAHs (Eisler 1987, Aries 2007). Stormwater discharges exposed to these operations/sites could, therefore, contain PAHs.

Additionally, EPA's industry analysis indicated that Subsector F1 (Steel Works, Blast Furnaces, and Rolling and Finishing Mills) has an estimated total PAH pollutant load in industrial wastewater of 628 kg/year, and Subsector F5 (Primary Smelting and Refining of Nonferrous Metals; Secondary Smelting and Refining of Nonferrous Metals; and Miscellaneous Primary Metal Products) has an estimated total PAH pollutant load in industrial wastewater of 3.7 kg/year. Subsector F1 (Steel Works, Blast Furnaces, and Rolling and Finishing Mills) had the third highest total estimated PAH pollutant loading in industrial wastewater of the MSGP subsectors evaluated.

Based on the potential for spills and leaks of petroleum products used at primary metals facilities, and sources identifying aluminum smelters and iron and steel facilities as potential sources of PAHs in surface waters, the 2021 MSGP requires indicator monitoring for PAHs for Sector F facilities.

Sector H: Coal Mines and Coal Mining-Related Facilities

The industrial stormwater fact sheet series identifies the following industrial activities with potential for petroleum hydrocarbon exposure to precipitation that could result in the discharge of PAHs in stormwater for Sector H:

- Equipment/vehicle maintenance, repair, and storage.
- Road and rail construction and maintenance.

Coal is a source of petrogenic PAHs. Coal pile discharge has been shown to result in PAH accumulation in receiving water sediments (Curran, 2000), and tailings from underground coal mining have been identified as a source of PAH contamination in urban soils (Hindersmann, 2018).

Sector H facilities commonly construct and maintain haul and access roads that could be sealed with coal-tar sealcoat. Coal-tar sealcoat, like other pavement, is exposed to the

elements and undergoes weathering and abrasion that can cause dust and particles containing PAHs to break off. Dust and particles containing PAHs can then be picked up by stormwater discharges and transported to stormwater control measures or directly to receiving waters where it can accumulate in sediments and soils (DeMott, 2010; Rowe, 2011; State of Washington Department of Ecology, 2011; Van Metre, 2009; Van Metre, 2010; Van Metre, 2014). Several studies have linked aquatic life impacts to PAHs in stormwater from surfaces treated with coal-tar and asphalt sealants (Bommarito, 2010; Bryer, 2006; Driscoll, 2019; Kienzler, 2015; Mahler, 2012; USGS, 2019). Thus, roads constructed at Sector H facilities may result in stormwater discharges containing PAHs.

Coal-tar creosote is a commonly used wood preservative derived from coal-tar and is known to contain high levels of PAHs (ATSDR, 2002). Several studies have shown that creosote-treated railroad ties and storage of creosote-treated wood have the potential to contribute to PAHs to soils and stormwater discharges (Van Zuydam, 2009; Ragan, 2011; Pietari, 2016; Konkler, 2020; Valle, 2007; Hussain, 2018; Brooks, 2004; Meador, 1995; Marcotte, 2014; Niera, 2016). Coal mines and related facilities commonly use railways to transport coal and other resources. Creosote-treated railroad ties used at Sector H facilities and exposed to precipitation may result in stormwater discharges containing PAHs.

Based on the potential for petroleum hydrocarbon exposure to precipitation and potential stormwater discharges of PAHs associated with coal piles and tailings at coal mines, as well as road and rail construction and maintenance, the 2021 MSGP requires indicator monitoring for PAHs for Sector H facilities.

Sector I: Oil and Gas Extraction

The industrial stormwater fact sheet series identifies the following industrial activities with potential for petroleum hydrocarbon exposure to precipitation that could result in the discharge of PAHs in stormwater for Sector I:

- Equipment/vehicle maintenance, repair, and storage.
- Vehicle fueling.
- Construction of access roads, drill pads, mud/reserve pits, storage tanks, pipelines, etc.
- Well drilling.
- Well completion or stimulation.
- Production.
- Site closures.

Sector I facilities include oil and gas exploration, production, processing or treatment operations, or transmission facilities. Spills or leaks of crude oil and petroleum products are documented sources of PAH contamination in surface waters (Mahler, 2001; Zychowski, 2016; Troisi, 2016; Meador, 1995; Collier 2013, Albers 2003, Hussain 2018). Petroleum exploration, extraction, transport, and refining have been associated with PAH contamination of surface waters (Collier, 2013; Reynolds, n.d.; Troisi, 2016). Sector I facilities may contribute PAHs in stormwater discharges from drilling mud and fluid, oil spills, leaks, and hydrostatic testing of natural gas pipelines (Sarma, 2016; Eisler, 1987).

Sector I facilities commonly construct access roads that could be sealed with coal-tar sealcoat. Coal-tar sealcoat, like other pavement, is exposed to the elements and undergoes weathering and abrasion that can cause dust and particles containing PAHs to break off. Dust and particles containing PAHs can then be picked up by stormwater discharges and transported to stormwater control measures or directly to receiving waters

where it can accumulate in sediments and soils (DeMott, 2010; Rowe, 2011; State of Washington Department of Ecology, 2011; Van Metre, 2009; Van Metre, 2010; Van Metre, 2014). Several studies have linked aquatic life impacts to PAHs in stormwater from surfaces treated with coal-tar and asphalt sealants (Bommarito, 2010; Bryer, 2006; Driscoll, 2019; Kienzler, 2015; Mahler, 2012; USGS, 2019). Thus, PAHs from construction of access roads at Sector I facilities may result in stormwater contamination.

The NRC Study noted for Sector I that “[s]pills and leaks can also lead to petroleum hydrocarbon contaminants in stormwater, including PAHs, which have been shown to be highly toxic to aquatic life. Chemical-specific monitoring is appropriate for this sector to ensure that stormwater is appropriately managed.”

Based on the potential for spills and leaks of petroleum products and documented sources of PAHs in surface waters at oil and gas extraction facilities, the 2021 MSGP requires indicator monitoring for PAHs for Sector I facilities.

Sector M: Automobile Salvage Yards

The industrial stormwater fact sheet series identifies the following industrial activities with potential for petroleum hydrocarbon exposure to precipitation that could result in the discharge of PAHs in stormwater for Sector M:

- Equipment/vehicle maintenance, repair, and storage.
- Storage of materials in above ground tanks.
- Outdoor vehicle and equipment storage.
- Unused parts storage.
- Vehicle dismantling.

End of life vehicles have been identified as a source of pollutants, including PAHs, and improper handling of end of life vehicle fluids, such as engine oil and transmission fluid, and components during the dismantling process has the potential to result in stormwater discharges containing PAHs from Sector M facilities (Arbitman, 2003). Stormwater discharges containing PAHs may occur as a result of vehicle and equipment dismantling and storage, as well as spills, leaks, or improper discarding of gasoline and oil (Prabhukamar, 2010; Valle, 2007; Srogi, 2007; Humboldt Baykeeper, n.d.). Based on the potential for petroleum hydrocarbon exposure to precipitation and potential stormwater discharges of PAHs at automobile salvage yards, the 2021 MSGP requires indicator monitoring for PAHs for Sector M facilities.

Sector O: Steam Electric Generating Facilities

The industrial stormwater fact sheet series identifies the following industrial activities with potential for petroleum hydrocarbon exposure to precipitation that could result in the discharge of PAHs in stormwater for Sector O:

- Equipment/vehicle maintenance, repair, and storage.
- Vehicle fueling.
- Storage of materials in above ground tanks.
- Scrap yards and refuse sites.

Sector O facilities store coal onsite. Coal is a source of petrogenic PAHs, and stormwater discharges from coal piles have been shown to result in PAH accumulation in receiving water sediments (Curran, 2000). EPA’s industrial stormwater fact sheet series for Sector O notes that the primary and largest potential source of stormwater pollutants from fossil-

fueled steam electric generating facilities is ash refuse piles. PAHs can form from the coal-combustion process and can be present in flue gas and ash generated from coal combustion (both fly ash and bottom ash) (Tarafdar, 2019). Electric power generation has been identified as a significant anthropogenic source of PAHs (Albers, 2003; Eisler, 1987; Rengarajan, 2015). Based on the potential for petroleum hydrocarbon exposure to precipitation and potential stormwater discharges of PAHs from coal piles and ash refuse sites, the 2021 MSGP requires indicator monitoring for PAHs for Sector O facilities.

Sector P: Land Transportation and Warehousing

The industrial stormwater fact sheet series identifies the following industrial activities with potential for petroleum hydrocarbon exposure to precipitation that could result in the discharge of PAHs in stormwater for Sector P:

- Equipment/vehicle maintenance, repair, and storage.
- Vehicle fueling.
- Storage of materials in above ground tanks.
- Petroleum loading/unloading.

Sector P includes railroad transportation facilities (SIC Codes 4011 and 4013). Coal-tar creosote is a commonly used wood preservative derived from coal-tar and is known to contain high levels of PAHs (ATSDR, 2002). Several studies have shown that creosote-treated railroad ties and storage of creosote-treated wood has the potential to contribute to PAHs in soils and stormwater discharges (Van Zuydam, 2009; Ragan, 2011; Pietari, 2016; Konkler, 2020; Valle, 2007; Hussain, 2018; Brooks, 2004; Meador, 1995; Marcotte, 2014; Niera, 2016). Precipitation running over creosote-treated railroad ties used at railroad transportation facilities may result in stormwater discharges containing PAHs.

Sector P also includes petroleum bulk stations and terminals (SIC Code 5171). Spills or leaks of petroleum products have been documented as sources of PAH contamination in surface waters. Petroleum exploration, extraction, transport, and refining have been associated with PAH contamination of surface waters (Collier, 2013; Reynolds, n.d.; Troisi, 2016). Petroleum bulk stations and terminals may contribute to stormwater discharges containing PAHs from oil spills and leaks, which may occur during transportation (Sarma, 2016; Eisler, 1987).

The NRC study noted for Sector P that “petroleum hydrocarbon leaks and spills could lead to harmful stormwater discharges of PAHs. The activities in Sector P and risk of stormwater pollution suggest that chemical-specific monitoring within the MSGP would be appropriate.”

Based on the potential for petroleum hydrocarbon exposure to precipitation and potential stormwater discharges of PAHs from creosote-treated railroad ties used at railroad transportation facilities and the potential for leaks and spills at petroleum bulk stations and terminals, the 2021 MSGP requires indicator monitoring for PAHs for Sector P facilities with SIC Codes 4011, 4013, and 5171.

Sector Q: Water Transportation

The industrial stormwater fact sheet series identifies the following industrial activities with potential for petroleum hydrocarbon exposure to precipitation that could result in the discharge of PAHs in stormwater for Sector Q:

- Materials loading and unloading, storage, handling, and waste management and disposal.
- Equipment/vehicle maintenance, repair, and storage.
- Storage of materials in above ground tanks.

Sector Q includes marinas (SIC Code 4491). Studies have linked PAH contamination in surface waters to marinas from activities associated with boating (e.g., boat cleaning, fueling operations), boat motor exhaust, and occasional spills (Neira, 2016; Heng, 2013). EPA's industry analysis indicated that Sector Q has an estimated total PAH pollutant load in industrial wastewater of 6,351 kg/year, which represents the second highest estimated PAH pollutant loading in industrial wastewater of the MSGP subsectors evaluated. Marinas (SIC Code 4491) account for most of the estimated loading identified in this subsector (6,379 kg/year). Based on the potential for petroleum hydrocarbon exposure to precipitation and potential stormwater discharges of PAHs at marinas, the 2021 MSGP requires indicator monitoring for PAHs for Sector Q facilities with SIC Code 4491.

Sector R: Ship and Boat Building and Repairing Yards

The industrial stormwater fact sheet series identifies the following industrial activity with potential for petroleum hydrocarbon exposure to precipitation that could result in the discharge of PAHs in stormwater for Sector R:

- Equipment/vehicle maintenance, repair, and storage.

Facilities in Sector R perform activities like fluid changes, mechanical repairs, engine maintenance and repair, parts cleaning, refinishing, paint removal, painting, fueling, metal working, welding, cutting, and grinding. These sorts of activities can include using solvents, oils, fuel, antifreeze, acid and alkaline wastes, abrasives, and paints and can create dust. Studies indicate that ship and boat building and repairing yards have the potential to contribute to PAH contamination of soil, groundwater, and marine sediments from maintenance activities, including scraping/sanding of hulls, use of anti-fouling paints, accidental fuel and oil spills, refueling operations, and repair of boat engines and boat maintenance (State of Washington Department of Ecology, n.d.; Eklund, 2014; Niera, 2016). Based on the potential for petroleum hydrocarbon exposure to precipitation and potential stormwater discharges of PAHs at ship and boat building and repairing yards, the 2021 MSGP requires indicator monitoring for PAHs for Sector R facilities.

Sector S: Air Transportation Facilities

The industrial stormwater fact sheet series identifies the following industrial activities with potential for petroleum hydrocarbon exposure to precipitation that could result in the discharge of PAHs in stormwater for Sector S:

- Materials loading and unloading, storage, handling, and waste management and disposal.
- Equipment/vehicle maintenance, repair, and storage.
- Vehicle fueling.
- Runway maintenance.

Studies indicate that Sector S facilities have the potential to contribute to PAHs to stormwater from combustion of liquid fuels, deicing/anti-icing agents, spills (during refueling, fuel transportation, airplane repairs, and fuel storage), airplane tire wear, runways paved

with bitumen or coal-tar sealcoat, and vehicle cleaning and maintenance (Sulej, 2011; Sulej, 2012; Sulej-Suchomska, 2016).

Sector S facilities commonly maintain runways that could be sealed with coal-tar sealcoat. Coal-tar sealcoat, like other pavement, is exposed to the elements and undergoes weathering and abrasion that can cause dust and particles containing PAHs to break off. Dust and particles containing PAHs can then be picked up by stormwater discharges and transported to stormwater control measures or directly to receiving waters where it can accumulate in sediments and soils (DeMott, 2010; Rowe, 2011; State of Washington Department of Ecology, 2011; Van Metre, 2009; Van Metre, 2010; Van Metre, 2014). Several studies have linked aquatic life impacts to PAHs in stormwater from surfaces treated with coal-tar and asphalt sealants (Bommarito, 2010; Bryer, 2006; Driscoll, 2019; Kienzler, 2015; Mahler, 2012; USGS, 2019). Thus, PAHs from runways sealed with coal-tar sealcoat at Sector S facilities may result in discharges of PAHs in stormwater.

Based on the potential for petroleum hydrocarbon exposure to precipitation and potential stormwater discharges of PAHs at air transportation facilities, the 2021 MSGP requires indicator monitoring for PAHs for Sector S facilities.

Indicator Monitoring Schedule

Indicator monitoring for PAHs for applicable operators is required bi-annually (i.e., sample twice per year) in the first and fourth years of the permit term as "report-only." For the 2021 MSGP, EPA is limiting PAH indicator monitoring to bi-annually in these two years of permit coverage, rather than quarterly, given laboratory analysis cost considerations. Indicator monitoring does not have a threshold or baseline value for comparison, therefore no follow-up action is triggered or required based on the sampling results in this part. The requirement in Part 2.2.1 to meet applicable water quality standards still applies. Operators may find it useful to evaluate and compare indicator monitoring data over time to identify any fluctuating values and why they may be occurring, and further inform any revisions to the SWPPP/SCMs if necessary. EPA encourages operators to proactively use their sampling results to understand where the SCMs are working if values are low and improve their stormwater management program if values are high, relative to previous samples collected at the same discharge point. Based on indicator monitoring data collected and analyzed under the 2021 MSGP, EPA may evaluate whether sector/subsector-specific benchmarks are warranted in a future proposed permit.

Samples for PAH indicator monitoring must be analyzed using EPA Method 625.1, or EPA Method 610/Standard Method 6440B if preferred by the operator, consistent with 40 CFR Part 136 analytical methods. These methods are specified for this part so that samples are analyzed consistently across operators. Of the PAH methods, high-performance liquid chromatography (HPLC) with UV/fluorescence detectors in series and gas chromatography/mass spectrometry (GC/MS) are documented to be the best techniques (Adeniji et al., 2018). EPA Method 625.1 is a GC/MS method and "is the most frequently used because of the advantages of identification using both retention time and mass spectrum, providing added information on the chemical structures of the analyte compounds" (Adeniji et al., 2018). In addition, all of the laboratories surveyed during EPA's cost research reported using EPA Method 625.1 for analysis of the 16 individual priority pollutant PAHs, indicating that this method is currently widely used. EPA Method 610/Standard Method 6440B is an HPLC method and is known to be more sensitive, specific, and reproducible than some GC-based methods (Adeniji et al., 2018). For this reason, EPA supports operators who prefer to use the more sensitive HPLC method.

EPA emphasizes that indicator monitoring for PAHs is report-only and is neither benchmark monitoring nor numeric effluent limitations. However, failure to conduct and report indicator monitoring is a permit violation. This part does not replace or modify any requirement for operators that must monitor for PAHs under any other type of required monitoring, including annual monitoring for impaired waters.

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Part 4.2.1.2 Exception for Facilities in Climates with Irregular Stormwater Discharges

This Part allows for an exception from indicator monitoring for facilities in climates with irregular stormwater discharges as described in Part 4.1.6 (e.g., areas where limited rainfall occurs during parts of the year (e.g., arid or semi-arid climates) or in areas where freezing conditions exist that prevent discharges from occurring for extended periods). This exception provides flexibility to those operators in these climates. Such operators may modify the applicable indicator monitoring schedule provided the operator reports the revised schedule directly to EPA by the due date of the first applicable sample (see EPA Regional contacts in Part 7.8), and the operator keeps this revised schedule with the facility's SWPPP as specified in Part 6.5. As noted in Part 4.1.7, the operator must indicate in Net-DMR any 3-month interval that it did not take a sample.

Part 4.2.1.3 Exception for Inactive and Unstaffed Facilities

This Part allows for an exception from indicator monitoring for facilities that are both inactive and unstaffed, when such facilities no longer have industrial activities or materials exposed to stormwater. EPA is allowing this exception because these facilities will not be contributing pollutants in stormwater discharges. These facilities could alternatively submit an NEC, terminating permit coverage. However, EPA realizes that some facilities plan to recommence industrial activity in the future and therefore may wish to keep active permit

coverage. To qualify for this exception, a facility must maintain a signed certification with their SWPPP documentation (Part 6.5 of the permit) that indicates that the site is inactive and unstaffed, and that there are no industrial activities or materials exposed to stormwater. Operators are not required to obtain advance approval for this exception. The 2021 MSGP includes an allowance for inactive and unstaffed sites in the mining industry (i.e., Sectors G, H, and J) to qualify for this exception where some industrial activities or materials are still exposed to stormwater. This provision is included for mining sites because of the large number of extremely remote sites in these sectors, and the impracticability/infeasibility of reaching these sites during qualifying storm events.

The permit clarifies that if circumstances change and industrial materials or activities become exposed to stormwater or facilities become active and/or staffed, this exception no longer applies and operators must immediately begin complying with the applicable indicator monitoring requirements under Part 4.2.1 as if they were in the first year of permit coverage, and notify EPA of the change in the NOI by submitting a "Change NOI" form. In the same way, if an operator does not qualify for this exception at the time it is authorized to discharge, but during the permit term the facility becomes inactive and unstaffed, and there are no industrial materials or activities that are exposed to stormwater, then the operator must notify EPA of this change in the "Change NOI" form. The operator may discontinue indicator monitoring once they have done so and have prepared and signed the statement described above concerning their qualification for this special exception.

Part 4.2.2 Benchmark Monitoring

This permit requires benchmark monitoring as a gauge of the performance of facilities' SCMs and to further ensure compliance with water quality standards. Since the MSGP's first issuance in 1995, benchmark monitoring has been employed as a means by which to measure the concentration of a pollutant in a facility's industrial stormwater discharges. See 60 FR 50804 (Sept. 29, 1995). Analytical results from benchmark monitoring are quantitative and therefore can be used to compare results from discharge to discharge and to quantify any improvement in stormwater quality attributable to the stormwater control measures, or to identify a pollutant that is not being adequately controlled. The benchmark thresholds are the pollutant concentrations above which represent a level of concern. The level of concern is a concentration at which a stormwater discharge could potentially impair or contribute to impairing water quality or affect human health from ingestion of water or fish. The benchmarks are also set at a level, that if below, a facility's discharges pose less potential for a water quality concern. As such, the benchmarks provide an appropriate level to determine whether a facility's SCMs are successfully implemented. See 60 FR 50804 for a discussion on the origin of the MSGP's benchmarks.

The 2019 NRC Study on industrial stormwater noted that some stakeholders have described benchmark monitoring as overly burdensome to industries and producing data that go unutilized (p. 18). On the other hand, other stakeholders have expressed concern that if stormwater problems are observed through benchmark monitoring, the mechanisms to ensure issues are effectively addressed are lacking. Public comments received on the proposed permit also express both of these views. Some stakeholders have also suggested that EPA completely discontinue benchmark monitoring and that operators and EPA should rely on annual reporting and quarterly visual assessments as the main mechanisms to assess stormwater control effectiveness at industrial facilities. Benchmark monitoring, Annual Reports, and visual assessments are all complementary, but ultimately serve different purposes for the operator, and for EPA.

Annual reporting only occurs once per year during the permit term, and thus limits the number of opportunities and delays the time the operator must assess and react to potential problems at their facility. Additionally, while Annual Reports contain valuable information on facility inspections, visual assessments, corrective actions, and Additional Implementation Measures, the data are largely qualitative. Visual assessments are also an important component of a facility's stormwater program, which requires the operator to observe water quality characteristics, such as color, clarity, solids, and oil sheen and can indicate issues from pollutants that are not required to be monitored for. Although quarterly visual assessments and quarterly benchmark monitoring occur at the same frequency, visual assessments result in narrative descriptions of stormwater pollution and may not provide the precision necessary for the operator to address a specific pollutant problem.

Compiling and evaluating information from either Annual Reports or visual assessments in a systemic, meaningful way is more challenging than analyzing quantitative benchmark data. Annual Reports tell an overall story of what happened with stormwater discharges at the facility for a given year, and visual assessments give a general, observed indication of discharge quality for a given quarter. Benchmark monitoring data, however, provide numerical indicators of stormwater control measure effectiveness, what pollutants are being discharged, and at what magnitude, which can be addressed in real-time and compared over time.

EPA has always tried to balance the burden to the regulated community with its obligation under the CWA to ensure industrial stormwater discharges meet all provisions of CWA § 301, including applicable water quality standards (CWA § 402(p)(3)(A)). To date, the Agency has not received adequate information or data suggesting a viable alternative approach to benchmark monitoring for characterizing industrial sites' stormwater discharges, quantifying pollutant concentrations, and assessing stormwater control measure effectiveness.

Part 4.2.2.1 Applicability of Benchmark Monitoring

Benchmark monitoring requirements described in Part 4.2.2 require operators to collect quarterly stormwater samples for laboratory chemical analyses. Samples must be analyzed consistent with 40 CFR Part 136 analytical methods and using test procedures with quantitation limits at or below benchmark thresholds for all benchmark parameters for which you are required to sample, i.e. sufficiently sensitive methods. For averaging purposes, you may use a value of zero for any individual sample parameter which is determined to be less than the method detection limit. For sample values that fall between the method detection level and the quantitation limit (i.e., a confirmed detection but below the level that can be reliably quantified), use a value halfway between zero and the quantitation limit.

For clarity, EPA continues to emphasize that the benchmark thresholds in the EPA 2021 MSGP are not, and have never been, effluent limits themselves. Therefore, an exceedance of the benchmark threshold is not a violation of the permit. At the same time, the permit contains a narrative effluent limitation to protect water quality.

Part 4.2.2.2 Summary of the 2021 MSGP Benchmark Thresholds

The following table presents the 2021 MSGP's freshwater and saltwater benchmark thresholds, and the source of those values. EPA updated the benchmark thresholds to match the units that appear in the source documents as indicated.

2015 and 2021 MSGP Benchmark Values and Sources

Pollutant		2015 MSGP Benchmark	2015 MSGP Source (see footnotes)	2021 MSGP Benchmark	2021 MSGP Source (see footnotes)
Total Recoverable Aluminum (T)		0.75 mg/L	1	1,100 µg/L	18
Total Recoverable Beryllium		0.13 mg/L	2	130 µg/L ^a	2
Total Recoverable Iron		1.0 mg/L	3	Removed	16
Biochemical Oxygen Demand (5-day)		30 mg/L	4	30 mg/L	4
pH		6.0 – 9.0 s.u.	4	6.0 – 9.0 s.u.	4
Chemical Oxygen Demand		120 mg/L	5	120 mg/L	5
Total Phosphorus		2.0 mg/L	6	2.0 mg/L	6
Total Suspended Solids (TSS)		100 mg/L	7	100 mg/L	7
Nitrate and Nitrite Nitrogen		0.68 mg/L	7	0.68 mg/L	7
Total Recoverable Magnesium		0.064 mg/L	8	Removed	16
Turbidity		50 NTU	9	50 NTU	9
Total Recoverable Antimony		0.64 mg/L	12	640 µg/L ^a	1
Ammonia		2.14 mg/L	13	2.14 mg/L	1
Total Recoverable Cadmium	Freshwater ^b	0.0021 mg/L	1	1.8 µg/L ^a	15
	Saltwater	0.04 mg/L	14	33 µg/L ^a	15
Total Recoverable Copper	Freshwater	0.014 mg/L	1	5.19 µg/L	18
	Saltwater	0.0048 mg/L	14	4.8 µg/L	14
Total Recoverable Cyanide	Freshwater	0.022 mg/L	1	22 µg/L ^a	1
	Saltwater	0.001 mg/L	14	1 µg/L ^a	14
Total Recoverable Mercury	Freshwater	0.0014 mg/L	1	1.4 µg/L ^a	1
	Saltwater	0.0018 mg/L	14	1.8 µg/L ^a	14
Total Recoverable Nickel	Freshwater ^b	0.47 mg/L	1	470 µg/L ^a	1
	Saltwater	0.074 mg/L	14	74 µg/L ^a	14
Total Recoverable Selenium	Freshwater	0.005 mg/L	3	1.5 µg/L for still/standing (lentic) waters 3.1 µg/L for flowing (lotic) waters	17
	Saltwater	0.29 mg/L	14	290 µg/L ^a	14
Total Recoverable Silver	Freshwater ^b	0.0032 mg/L	1	3.2 µg/L ^a	1
	Saltwater	0.0019 mg/L	14	1.9 µg/L ^a	14
Total Recoverable Zinc	Freshwater ^b	0.12 mg/L	1	120 µg/L ^a	1
	Saltwater	0.09 mg/L	14	90 µg/L ^a	14
Total Recoverable Arsenic	Freshwater ^b	0.15 mg/L	3	150 µg/L ^a	3
	Saltwater	0.069 mg/L	14	69 µg/L ^a	14

Pollutant		2015 MSGP Benchmark	2015 MSGP Source (see footnotes)	2021 MSGP Benchmark	2021 MSGP Source (see footnotes)
Total Recoverable Lead	Freshwater ^b	0.082 mg/L	3	82 µg/L ^a	3
	Saltwater	0.21 mg/L	14	210 µg/L ^a	1

^a Values have been updated to match original units found in source documents.

^b These pollutants are dependent on water hardness where discharged into freshwaters. The freshwater benchmark value listed is based on a hardness of 100 mg/L. When a facility analyzes receiving water samples for hardness, the operator must use the hardness ranges provided in Table 1 in Appendix J of the 2015 MSGP and in the appropriate tables in Part 8 of the 2015 MSGP to determine applicable benchmark values for that facility. Benchmark values for discharges of these pollutants into saline waters are not dependent on receiving water hardness and do not need to be adjusted.

Sources:

1. "National Recommended Water Quality Criteria." Acute Aquatic Life Freshwater (EPA-822-F-04-010 2006-CMC). <https://nepis.epa.gov/Exe/ZyNET.exe/P1003R9X.txt?ZyActionD=ZyDocument&Client=EPA&Index=2006%20Thru%202010&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&UseQField=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5CZYFILES%5CINDEX%20DATA%5C06THRU10%5CTXT%5C00000007%5CP1003R9X.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=hpfr&DefSeeKPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=2#>
2. "EPA Recommended Ambient Water Quality Criteria for Beryllium." LOEL Acute Freshwater (EPA-440-5-80-024 October 1980)
3. "National Recommended Water Quality Criteria." Chronic Aquatic Life Freshwater (EPA-822-F-04-010 2006-CCC)
4. Secondary Treatment Regulations (40 CFR 133)
5. Factor of 4 times BOD5 (5-day biochemical oxygen demand) concentration - North Carolina Benchmark
6. North Carolina stormwater Benchmark derived from NC Water Quality Standards
7. National Urban Runoff Program (NURP) median concentration
8. Minimum Level (ML) based upon highest Method Detection Limit (MDL) times a factor of 3.18
9. Combination of simplified variations on Stormwater Effects Handbook, Burton and Pitt, 2001 and water quality standards in Idaho, in conjunction with review of DMR data
10. "National Ambient Water Quality Criteria." Acute Aquatic Life Freshwater. This is an earlier version of the criteria document that has subsequently been updated. (See source #1)
11. "National Ambient Water Quality Criteria." Chronic Aquatic Life Freshwater. This is an earlier version of the criteria document that has subsequently been updated. (See source #3)
12. "National Ambient Water Quality Criteria. "Human Health for the Consumption of Organism Only (EPA-822-F-01-0102006)
13. "Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses." USEPA Office of Water (PB85-227049 January 1985)
14. "National Recommended Water Quality Criteria." Acute Aquatic Life Saltwater (CMC) available at: <http://water.epa.gov/scitech/swguidance/standards/criteria/current/index.cfm#altable>
15. "Aquatic Life Ambient Water Quality Criteria: Cadmium, 2016" (EPA 820-R-16-002)
16. Improving the EPA Multi-Sector General Permit for Industrial Stormwater Discharges, 2019. Available at: <https://www.nap.edu/catalog/25355/improving-the-epa-multi-sector-general-permit-for-industrial-stormwater-discharges>

17. "National Recommended Water Quality Criteria Table." Available at: <https://www.epa.gov/wqc/national-recommended-water-quality-criteria-aquatic-life-criteria-table>
18. See "Industrial stormwater Technical Memo for aluminum and copper criteria percentiles" in Docket ID# EPA-HQ-OW-2019-0372.

Derivation of the Benchmark Levels

The 2021 MSGP retains many of the same benchmark monitoring thresholds as the 2015 MSGP, with some modifications. EPA revised the aluminum, copper (for discharges to freshwater), selenium (for discharges to freshwater), and cadmium benchmark thresholds based on updated EPA national recommended aquatic life water quality criteria and suspends magnesium and iron based on the NRC study recommendations and lack of documented acute toxicity. The 2021 MSGP also incorporates additional flexibility in Part 5 (Additional Implementation Measures) for those operators who exceed the benchmark threshold for aluminum or copper through the optional derivation and application of a facility-specific threshold.

The process that EPA followed in selecting the benchmark thresholds for the permit is the same as in previous permits. The steps are as follows: Step 1: Use EPA's current CWA section 304(a) national recommended aquatic life ambient water quality acute criterion value, where appropriate; Step 2: If no EPA acute criterion exists, use the national recommended aquatic life ambient water quality chronic criterion; Step 3: If neither acute nor chronic criteria exist, use data from discharge studies or technology-based standards to establish a benchmark. EPA hereinafter refers to the CWA section 304(a) national recommended aquatic life ambient water quality criteria as "criteria" or "criterion" and differentiates acute and chronic criteria where applicable. EPA also evaluated reported 2015 MSGP benchmark monitoring data for aluminum and copper (for discharges to freshwater) to determine if it would be appropriate to allow voluntary calculation and use of a facility-specific threshold using the national recommended criteria equations in place of the standard MSGP benchmark thresholds for aluminum and copper.

In general, the freshwater acute criteria are less restrictive than chronic water quality criteria. Because of the intermittent nature of wet weather (i.e., stormwater) discharges and the increased and variable ambient flows that generally result from precipitation events, EPA views acute criteria as generally more appropriate than chronic criteria in this context. Since benchmarks are usually set equal to recommended ambient water quality criteria for the receiving waters, with no allowance for dilution during storm events, they generally represent conservative values. Exceedance of a benchmark threshold does not necessarily indicate that a discharge is not meeting an applicable water quality standard, but does require the operator to evaluate the effectiveness of its stormwater control measures, with follow-up Additional Implementation Measures (AIM) responses where required per Part 5.2. For a full discussion of EPA's approach for the derivation of the benchmarks, see the Fact Sheet for the 1995 MSGP (60 Fed. Reg. 50825), 2000 MSGP (65 Fed. Reg. 64746), and the 2008 MSGP (73 Fed. Reg. 56572).

The MSGP defines saline or saltwaters for the purposes of benchmark monitoring as those waters with salinity equal to or in exceedance of 10 parts per thousand 95 percent or more of the time, unless otherwise defined as a coastal or marine water by the applicable state or tribal surface water quality standards. This definition is consistent with 40 CFR 131.36. These benchmarks represent the available acute ambient water quality criteria for priority toxic and non-priority pollutants in saltwater.

The use of national recommended aquatic life ambient water quality criteria, particularly acute criteria, are appropriate for use as benchmark thresholds in the MSGP for stormwater discharges. Criteria are derived to be protective under ambient conditions however those water conditions occur. The criteria reflect maximum concentrations of a pollutant in ambient water that can occur for specific durations that will still protect the designated aquatic life use, if not exceeded more than once in 3 years on average.

The duration for acute criteria, which are most often selected as sources for the MSGP benchmark thresholds, are typically one hour. In a laboratory setting, acute criteria reflect toxic effects observed in test organisms following acute laboratory exposure tests of 4 days. There are scientific studies indicating shorter-term exposures (e.g., one hour or less, as with stormwater) can cause latent acute effects, thus the one-hour acute exposure duration is intended to reflect this knowledge (Brent and Herricks, 1998; Mebane et al., 2019).

The use of acute water quality criteria for stormwater comports with recommendations in the NRC study, which states: *"Given the episodic nature of stormwater flow and the likelihood of instream dilution and attenuation, aquatic life criteria based on short-term (acute) or intermittent exposures are typically more appropriate for stormwater benchmark threshold levels than criteria based on long-term (chronic) exposures. Where EPA identifies substantial chronic risks to aquatic ecosystems from intermittent exposures during criteria development, such as for contaminants that bioaccumulate, an equation should be provided to translate chronic criteria."*

The duration for chronic criteria is typically 4 days, but occasionally set for longer durations. In a laboratory setting, chronic criteria reflect reproductive, growth, or survival impacts occurring in 20- to 60-day toxicity tests, depending on the test and species. There is evidence that for some chemicals and species chronic effects can occur after shorter durations (Brent and Herricks, 1998; Mebane et al., 2019).

The potential for shorter-term exposures (e.g., one hour or less) to result in delayed effects has long been recognized. In the "Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses," which established the basis for deriving aquatic life criteria, Stephan et al. (1985) state for acute criteria "one hour is probably an appropriate averaging time because high concentrations of some materials can cause death in one to three hours. Even when organisms do not die within the first hour or so, it is not known how many might have died due to delayed effects (Stephan et al., 1985). Recent scientific investigations support that shorter-term exposures, can cause delayed acute effects (Brent and Herricks, 1998; Mebane et al., 2019). The one-hour acute exposure duration is intended to reflect this knowledge.

Multiple chemical exposures (e.g., PAHs) may occur after wet weather events that cause stormwater discharges; the current science indicates that effects of multiple individual chemicals in the same class are often found to be additive (ECETOC, 2001; Jakobs et al., 2020; EPA, 2008; NAS, 2013). The one-by-one chemical consideration for benchmarks in the MSGP does not address potential additive effects, and while EPA establishes the benchmark thresholds at a level below which a facility's discharges pose less potential for a water quality concern, possible additive effects of multiple chemicals suggests the benchmark thresholds are unlikely to be overprotective in general.

Although numerous laboratory studies document the potential impacts to aquatic life of pulsed exposure to contaminants, impacts from wet weather events can be challenging to document in the field, due in part to the intermittent nature of the events and sampling logistics. However, the recurrent die off of salmon returning to urban streams in the Puget

Sound provides an example of impacts that can be directly linked with stormwater pollutants (McIntyre et al., 2015; Scholz et al., 2011).

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New Benchmark Thresholds for Aluminum and Copper

Aluminum

The 2021 MSGP benchmark threshold for aluminum changed to 1,100 µg/L from the 2015 MSGP threshold of 750 µg/L. Just like the 2015 MSGP, the 2021 MSGP requires operators in subsectors C2, E1, F1, F2, H1, M1, N1, Q1, and AA1 to conduct benchmark monitoring for aluminum. The 2015 MSGP benchmark value for aluminum was set to 750 µg/L (0.75 mg/L) based on the 1988 national recommended acute freshwater aquatic life criteria. In 2018, EPA updated the recommended aluminum criteria to reflect the latest scientific understanding of how water chemistry parameters alter the bioavailability of aluminum and affect toxicity to aquatic species. The updated criteria use a criteria calculator that incorporates a multiple linear regression method to derive values resulting from the interaction of total hardness, pH, and dissolved organic carbon (DOC). Therefore, rather than setting a single fixed value, the new recommended criteria values vary depending on the water chemistry conditions in the waterbody.

Considering whether to update the MSGP benchmark thresholds to reflect the latest recommended water quality criteria is generally undertaken each time EPA revises this permit. The NRC study also recommended that the 2021 MSGP benchmark threshold for

aluminum should reflect the updated criteria. Given the site-specific nature of the new criteria, EPA explored the best way to update the MSGP's benchmark using the revised recommended aluminum criteria, as discussed in additional detail below. The 2021 MSGP incorporates the revised recommended criteria in two ways, 1) using a single nationally-representative value based on the criteria calculator as the MSGP benchmark threshold, and 2) providing operators who may exceed this benchmark the opportunity to conduct a site-specific analysis using the criteria model and representative ambient water chemistry data for pH, DOC, and hardness for the site to demonstrate to EPA that their discharges would not exceed their refined site-specific value. The details of the benchmark and the optional site-specific derivation are discussed in the next sections.

Copper

The 2021 MSGP freshwater benchmark threshold for copper changed to 5.19 µg/L from a hardness-based range in the 2015 MSGP. Like the previous permit, the 2021 MSGP requires operators in subsectors A2, F2, F3, F4, G2, and N1 to conduct benchmark monitoring for copper. The 2015 MSGP copper benchmark value for freshwater was hardness-dependent based on the 1984 national recommended acute freshwater aquatic life criteria, ranging from 3.8 µg/L to 33.2 µg/L. In 2007, EPA revised the recommended copper criteria using new data on copper toxicity and its effects on aquatic life that became available. The new criteria are based on the Biotic Ligand Model (BLM) – a metal bioavailability model that uses receiving water body characteristics to develop site-specific water quality criteria. The BLM requires ten input parameters to calculate the freshwater copper criterion: temperature, pH, dissolved organic carbon (DOC), calcium, magnesium, sodium, potassium, sulfate, chloride, and alkalinity. Although the recommended criteria were updated in 2007, EPA decided to not update the copper benchmark in the 2015 MSGP due to the extra sampling burden that would be placed on operators to acquire the site-specific water quality data needed by the BLM.

For the 2021 MSGP, EPA re-evaluated the possibility of using the current recommended copper criteria to inform the MSGP benchmark, discussed below. As with aluminum, the 2021 MSGP incorporates the revised recommended copper criteria in the same two ways, 1) using a single nationally-representative value informed by the BLM as the benchmark threshold, and 2) providing operators who may exceed this benchmark the opportunity to conduct a site-specific individual analysis using the copper BLM and representative ambient water chemistry data for temperature, pH, dissolved organic carbon (DOC), calcium, magnesium, sodium, potassium, sulfate, chloride, and alkalinity for the site to demonstrate to EPA that their discharges would not exceed their refined site-specific value.

Derivation of New Benchmarks for Aluminum and Copper

The new benchmark thresholds of 1,100 µg/L for aluminum and 5.19 µg/L for copper align with the updated acute aquatic life criteria and account for the required water quality parameter inputs to reflect the latest methods and toxicity data available. To generate these thresholds, EPA calculated nationally representative acute water quality criteria values for aluminum and copper using water quality data reported in the USGS National Water Information System (NWIS) database and collected from surface waters across the conterminous U.S. between 1984 and 2018. For copper, these data were evaluated for the input water chemistry parameters of calcium (Ca), magnesium (Mg), sodium (Na), sulfate (SO₄), chloride (Cl), potassium (K), alkalinity, temperature, hardness, pH, and dissolved organic carbon (DOC). For aluminum, these data were evaluated for the input water chemistry parameters of pH, DOC, and hardness. EPA also included the following supporting information in the data analysis: sampling station ID number, sample date,

sample season, state, EPA region, stream order, location name, latitude, longitude, and ecoregion. After initial compilation, data were evaluated for usability based on several other quality assurance factors (for complete details on the QA process (see "Industrial stormwater Technical Memo for aluminum and copper criteria percentiles" in Docket ID# EPA-HQ-OW-2019-0372). The final database included a total of 686 NWIS sample stations and 38,603 records. EPA then analyzed the data using the Aluminum Criteria Calculator R Code V2.0 and the Copper Biotic Ligand Model (BLM) V2.2.1 for criteria derivation. Based on this analysis, EPA derived values used for the benchmark monitoring thresholds for aluminum and copper that represent a level of protection (LOP) that is estimated to be protective 90% of the time, at a national level, for 95% of the genera.

This analysis generated an aluminum criteria value of 1,100 µg/L used for the 2021 MSGP's benchmark threshold, reflecting the same intended level of protection but based the best available science with improved accuracy of the intended LOP from the previous permit's benchmark. The updated freshwater acute criterion, on which the new benchmark threshold is based, considers the variable effects of water chemistry on aluminum toxicity and includes additional species data. The data in the 1988 recommended water quality criteria were not normalized to any water chemistry conditions making it difficult to compare the magnitude of the two criteria. The revised recommended criterion represents the concentration of aluminum at which approximately 95% of genera in a freshwater aquatic ecosystem should be protected if one-hour average (duration) concentration of total aluminum is not exceeded more than once in three years (frequency) (see Final Aquatic Life Ambient Water Quality Criteria for Aluminum – 2018 (EPA-822-R-18-001)).

The analysis also generated a value 5.19 µg/L for the copper criteria for the 2021 MSGP's benchmark. Using the BLM-based water quality criteria reflects the same intended LOP but based the best available science with improved accuracy of the intended LOP from the hardness-based benchmark value in the 2015 MSGP, which ranged from 3.8 µg/L to 33.2 µg/L. The revised benchmark threshold will in some cases be higher and in other cases be lower than the hardness-based benchmark threshold in the 2015 MSGP. Although there is not a single water quality criteria value to use for comparison purposes, the BLM-based water quality criteria for copper provides an improved framework for evaluating an LOP that is consistent with the LOP that was intended by the 1985 Guidelines (i.e., a 1-in-3 year exceedance frequency that will be protective of 95% of the genera) (see Aquatic Life Ambient Freshwater Quality Criteria - Copper 2007 Revision (EPA-822-R-07-001)).

As EPA moves toward developing more bioavailability-based recommended water quality criteria, the NPDES program will continue to seek the input of EPA's criteria experts in considering future revised criteria as benchmarks in the MSGP. For detailed information on the 2018 recommended aluminum criteria and the 2007 recommended copper criteria, please refer to publications "Final Aquatic Life Ambient Water Quality Criteria for Aluminum – 2018 (EPA-822-R-18-001)" and "Aquatic Life Ambient Freshwater Quality Criteria - Copper 2007 Revision (EPA-822-R-07-001)," respectively. For a detailed description of the criteria analysis used for the 2021 MSGP, see "Industrial stormwater Technical Memo for aluminum and copper criteria percentiles" in Docket ID# EPA-HQ-OW-2019-0372.

Optional operator-derived aluminum and copper values after benchmark exceedance

The NRC study recommended that EPA allow facilities that repeatedly exceed certain benchmark thresholds to be able to use the latest aquatic life criteria to evaluate water quality risk on a site-specific basis and discontinue comparisons to national benchmarks. Although the current 2018 recommended criteria for aluminum and the 2007 recommended criteria for copper in freshwater provide the flexibility to develop site-

specific criteria based on local water chemistry, the extra data collection associated with implementing these new aquatic life criteria makes them challenging to finalize as benchmark thresholds in the MSGP at the individual facility level, given there are an estimated 355 facilities that monitor for aluminum and 94 facilities that monitor for copper. Collection and reporting of several in-stream water chemistry parameters would be required of each operator ahead of or concurrent with NOI submission to allow EPA to derive a facility-specific benchmark threshold by the time the first quarter of benchmark monitoring is due. At this time, EPA finds this approach to be unduly burdensome to both the operator and to EPA as the permitting authority for this general permit. One of the main benefits of a general permit is that it streamlines permit coverage for a large number of operators with similar discharges that are subject to the same or similar monitoring requirements. A general permit can allow the permitting authority to allocate resources efficiently and provide timelier permit coverage rather than issuing an individual permit and individually-tailored monitoring requirements to each facility.

However, the current recommended water quality criteria represent the latest scientific understanding of toxicity and bioavailability for aluminum and copper for protecting aquatic ecosystems from adverse impacts from short-term or intermittent exposure, such as that from stormwater. EPA recognizes the benefit of a facility-specific criteria in identifying when stormwater discharges of these constituents at certain facilities may pose less of a concern than the nationally-representative benchmarks would otherwise indicate. Therefore, for the 2021 MSGP, EPA is allowing an exception from Additional Implementation Measures (AIM) and continued benchmark monitoring requirements for operators that exceed the MSGP benchmark thresholds for either aluminum or copper (for discharges to freshwater) and can demonstrate to EPA that their discharge(s) would not result in an exceedance of a derived facility-specific value. See Part 5.2.6.4 for details and conditions of the exception.

New Benchmark Threshold for Selenium (for Discharges to Freshwater)

As in the 2015 MSGP, the 2021 MSGP requires operators in subsectors G2 and K1 to conduct benchmark monitoring for selenium. The 2015 MSGP benchmark threshold for freshwater was set to 5 µg/L, based on the 1999 national recommended chronic freshwater aquatic life criteria. EPA used the chronic criterion for the benchmark threshold since at the time issuance of the 2015 MSGP, no acute freshwater criterion had been published. In 2016, EPA updated the national recommended aquatic life chronic criteria for selenium in freshwater that reflects the latest science and consists of four elements, all of which are protective against chronic selenium effects (see Aquatic Life Ambient Water Quality Criterion for Selenium – Freshwater 2016, EPA 822-R-16-006). Two elements are based on the concentration of selenium in fish tissue and two elements are based on the concentration of selenium in the water column, which are the elements of the criteria most relevant in determining a revised benchmark threshold.

The recommended water-related elements of the update selenium criteria are: (1) a monthly average exposure water column element and (2) an intermittent exposure water column element to account for potential chronic effects from short-term exposures. Both water column elements include two values: one for lentic waters (e.g., lakes and impoundments) and one for lotic waters (e.g., rivers and streams). The recommended selenium criteria for the monthly average exposure water column element are 1.5 µg/L for still/standing (lentic) waters and 3.1 µg/L for flowing (lotic) waters, which EPA recommended states use when implementing the criteria under the NPDES program. Based on this recommendation, the 2021MSGP includes the benchmark threshold of 1.5 µg/L for stormwater discharges to still/standing (lentic) waters and 3.1 µg/L for stormwater

discharges to flowing (lotic) waters. Operators required to conduct benchmark monitoring for selenium are required to identify on the NOI whether the receiving waterbody is still/standing or flowing for each discharge point. Operators should refer to the state's waterbody classifications/definitions where available.

EPA has not developed specific concentration-based acute criteria in the 2016 national recommended aquatic life criteria for selenium; however, the chronic criterion is expected to be protective of acute effects on aquatic communities. To account for acute effects, EPA derived an intermittent exposure equation to address short-term exposures (such as stormwater) that contribute to the bioaccumulation of selenium and reproductive effects on fish species. The equation includes a translation of the chronic criteria, which must be calculated based on the background base-flow concentration of selenium in the receiving water and the length of exposure. See Table 1 on page XV of the final recommended criterion document for selenium https://www.epa.gov/sites/production/files/2016-07/documents/aquatic_life_awqc_for_selenium_-_freshwater_2016.pdf.

The NRC study recommended that EPA allow operators that repeatedly exceed the benchmark threshold for selenium to use the EPA-developed intermittent exposure equation in the revised recommended water quality criteria to evaluate water quality risk on a site-specific basis and discontinue comparisons to the MSGP benchmark threshold. Allowing operators who have repeatedly exceeded benchmarks to perform facility-specific analyses could provide additional information on any potential adverse effects that could occur based on specific facility conditions. However, optional use of the selenium intermittent exposure equation for such operators requires gathering additional data, including average background base-flow concentration of selenium in the receiving water and the length of exposure based on the fraction of any 30-day period during which elevated selenium concentrations occur. Given that reported benchmark data under the 2015 MSGP do not indicate a high incidence of exceedance of the 2015 MSGP selenium benchmark and the extra data collection associated with implementing the intermittent exposure water column criteria the 2021 MSGP does not include the option to use the intermittent exposure water column aquatic life criterion. EPA may consider a site-specific benchmark application of the selenium water quality criteria in a future proposed permit.

Maintaining the Previous MSGP Benchmark Threshold for Arsenic

As in the 2015 MSGP, the 2021 MSGP requires operators in subsectors A2, G2, and K1 to conduct benchmark monitoring for arsenic. The benchmark value in the 2015 MSGP was set to 150 µg/L (0.15 mg/L) for freshwater and 69 µg/L (0.069 mg/L) for saltwater. These values are based on the 1995 national recommended chronic water quality criteria for freshwater and acute criteria for saltwater, respectively. The more conservative chronic freshwater criterion of 150 µg/L was selected for the MSGP benchmark, rather than the acute freshwater criterion which is set to 340 µg/L, based on concerns about near-coastal freshwater discharges flowing quickly into sensitive saline waters, which have a saltwater acute aquatic criteria value of 69 µg/L, five times lower than the acute freshwater criterion. The NRC study recommended that EPA base the freshwater benchmark threshold on the recommended acute aquatic life criterion of 340 µg/L unless EPA can justify why arsenic in stormwater from freshwater in near-coastal setting is of concern or until the Agency develops a criterion based on intermittent exposure. For the 2021 MSGP, and as stated in previous MSGPs, EPA will continue using the recommended chronic freshwater criteria of 150 µg/L for setting the freshwater arsenic benchmark given that the Agency prefers not to weaken a discharge requirement unless good scientific evidence exists that a pollutant is less toxic than previously believed. This is not the case with arsenic. Furthermore, arsenic toxicity increases substantially in saline waters. Since many permitted facilities under EPA's

MSGP are located in coastal states, and their discharge may reach saline waters quickly, EPA will continue to use the chronic criteria for arsenic as a benchmark to protect these estuarine environments.

New Benchmark Threshold for Cadmium

As with the 2015 MSGP, the 2021 MSGP requires operators in subsectors G2 and K1 to conduct benchmark monitoring for cadmium. EPA based the 2015 MSGP benchmark threshold on the 2001 national recommended acute aquatic life criterion that was hardness-dependent for freshwater (2.1 ug/L based on a hardness of 100 mg/L) and 40 ug/L for saltwater. In 2016, EPA updated the freshwater criterion to continue to be hardness-dependent (1.8 ug/L based on a hardness of 100 mg/L) and the saltwater criterion to 33 ug/L (see 81 FR 19176). The revised criteria represent the best science available by accounting for new laboratory aquatic toxicity tests, including the effects of total hardness on cadmium toxicity and included 75 new species and 40 new genera in the testing process. Based on the revised criteria, the 2021 MSGP includes a new freshwater benchmark for cadmium that continues to be hardness-dependent (at a hardness of 100 mg/L the benchmark is 1.8 µg/L) and a new saltwater benchmark of 33 µg/L.

Suspending the Benchmark Threshold for Magnesium

The 2015 MSGP required operators in subsector K1 to monitor for magnesium and included a benchmark value of 0.064 mg/L. The NRC study recommended that EPA remove the magnesium benchmark from the 2021 MSGP since it is a “natural component of surface and groundwater and does not appear to be toxic to a majority of aquatic organisms at concentrations likely to be encountered in most waters” (NRC, 41). Significant evidence does not exist to indicate adverse impacts of aquatic organism, and EPA does not provide an aquatic life criterion for magnesium. Magnesium concentrations present in stormwater are not anticipated to be toxic to most aquatic organisms.⁷ EPA agrees with the NRC’s analysis and does not have a historical record to support continuing to require this benchmark parameter and therefore removed magnesium as a benchmark in the 2021 MSGP. If EPA develops an aquatic life criterion for magnesium in the future, the Agency may consider including it in a future proposed permit.

Suspending the Benchmark Threshold for Iron

In the 2015 MSGP, EPA required operators in subsectors C1, C2, E2, F2, G2, H1, L2, M1, N1, O1, Q1, and AA1 to conduct benchmark monitoring for iron. The 2015 MSGP benchmark was set to the 1986 criteria of 1,000 µg/L. EPA has not developed national recommended acute aquatic life criteria for iron since the MSGP was originally issued. The NRC study found few studies on the acute effects of iron on aquatic organisms, and the studies that were referenced suggest lethal effects occur well above the 2015 MSGP benchmark over longer time periods. Another study cited by the NRC also suggested that iron has relatively low toxicity and bioaccumulation of iron does not pose a substantial hazard to higher trophic levels, therefore it is unlikely that a criterion based on intermittent exposure would be necessary. The NRC recommended that EPA no longer require an iron benchmark. EPA has removed iron as a benchmark in the 2021 MSGP. If EPA revises the recommended aquatic life criterion for iron in the future, the Agency may consider including it in a future proposed permit.

⁷ van Dam, R. A., A. C. Hogan, C. D. McCullough, M. A. Houston, C. L. Humphrey, and A. J. Harford. 2010. Aquatic toxicity of magnesium sulfate, and the influence of calcium, in very low ionic concentration water. *Environmental Toxicology and Chemistry* 29(2):410 – 421.

Part 4.2.2.3 Benchmark Monitoring Schedule

In the 2021 MSGP, operators required to conduct sector-specific benchmark monitoring must at a minimum do so quarterly in the first year of permit coverage and again in the fourth year of permit coverage, unless a modified benchmark monitoring schedule is included in the SWPPP for “Facilities in Climates with Irregular Stormwater Discharges” (see Part 4.2.2.4). The new benchmark monitoring schedule is updated from the 2015 MSGP and extends the minimum benchmark monitoring from four quarters to at least eight quarters under the 2021 MSGP. The 2015 MSGP required only four quarters of benchmark monitoring in the first year of permit coverage, after which benchmark monitoring could be discontinued for the remainder of the permit if the average of four quarters of monitoring was below the benchmark threshold. Requiring monitoring twice during the permit term at the beginning and again towards the end of the permit allows operators to better characterize their industrial stormwater discharges and describe industrial SCM performance with additional sampling data throughout their permit coverage. If the MSGP is administratively continued at the end of its five-year permit term, benchmark monitoring that was applicable at the time of expiration would continue to be required for operators authorized under the permit prior to its expiration. If monitoring data are unable to be reported electronically after the expiration of the permit, operators would be required to maintain data on site with the SWPPP and be made available to EPA upon request.

The 2021 MSGP requires that applicable operators conduct quarterly benchmark monitoring in their first year of permit coverage, beginning in the first *full* quarter of permit coverage, no earlier than May 30, 2021, just as the 2015 MSGP required. An operator that does not exceed the four-quarter annual average for a given parameter can discontinue benchmark monitoring for that parameter for the next two years (i.e., the next eight quarters). Quarterly benchmark monitoring then resumes in the fourth year of permit coverage for another four quarters for all parameters, unless the first quarter of the operator’s fourth year of permit coverage occurs on or after the date this permit expires.

However, if during the first year of benchmark monitoring, the annual average for a parameter exceeds the benchmark threshold, the operator must comply with Part 5 (Additional Implementation Measures responses and deadlines), and continue quarterly benchmark monitoring for that parameter for four quarters until results indicate that the annual average for the parameter is no longer exceeded. At this point, the operator can discontinue monitoring for that parameter until monitoring resumes in the fourth year of permit coverage for all parameters. The same AIM requirements apply for any exceedance that occurs during benchmark monitoring in the fourth year. If the annual average for a parameter exceeds the benchmark threshold, the operator must comply with Part 5 and continue quarterly benchmark monitoring for that parameter until results indicate that the annual average is no longer exceeded, after which the operator can discontinue benchmark monitoring for that parameter for the remainder of permit coverage.

Under the new schedule, regardless of when the operator discontinued monitoring for any benchmark parameter, monitoring resumes for all parameters for four quarters in the fourth year of permit coverage (unless the permit has already expired). It is possible that an operator with continued benchmark exceedances in years two and three of permit coverage will be required to continue monitoring through their second and third years of permit coverage. In the scenario where the operator receives results in their third year of permit coverage that the benchmark threshold is no longer exceeded, the operator is still required to monitor again the following year, in their fourth year of permit coverage. The principle underpinning this schedule is that the relief period from benchmark monitoring between the first and fourth year decreases if benchmark exceedances continue and

additional monitoring is required. During this year, operators may also be conducting continued benchmark monitoring in compliance with AIM for certain parameters that have ongoing exceedances.

Exceptions for data exceeding benchmarks and compliance with AIM, including from natural background pollutant sources and run-on, were moved to Part 5.2.6 AIM Exceptions. If results from continued quarterly monitoring, as required under AIM, show that no exceedance of the annual average has occurred (i.e., no AIM triggering event has occurred), the operator can discontinue benchmark monitoring for the next eight quarters. After eight "off-quarters," the benchmark monitoring cycle then resumes for another four quarters, as described above.

Under the 2021 MSGP, an annual average exceedance for a parameter can occur under two mathematically related conditions:

(a) The four-quarterly annual average for a parameter exceeds the benchmark threshold; or

(b) Fewer than four quarterly samples are collected, but a single sample or the sum of any sample results within the sampling year exceeds the benchmark threshold by more than four times for a parameter. This result indicates an exceedance is mathematically certain (i.e., the sum of quarterly sample results to date is already more than four times the benchmark threshold). EPA notes that because pH is on a logarithmic scale, an annual average exceedance for pH can only occur if the four-quarter annual average exceeds the benchmark threshold.

The two exceedance triggering conditions detailed in this Part are the same as in the 2015 MSGP but are specifically separated out in the 2021 MSGP for clarity. This delineation ensures that operators are aware that a benchmark exceedance can also occur from one high quarterly sample, or the average of two or three quarterly samples, if high enough, and that AIM responses and deadlines in Part 5 must be followed as soon as the operator knows an annual average exceedance is certain.

40 C.F.R. 122.48(b) requires that EPA specify any monitoring in the MSGP at an interval and frequency "sufficient to yield data which are representative of the monitored activity." The 2021 MSGP extended benchmark monitoring schedule will ensure that operators have current data to characterize their stormwater discharges throughout their permit coverage. The 2019 NRC study observed that quarterly stormwater event samples collected over one year as in the 2015 MSGP were inadequate to characterize industrial stormwater discharge or describe long-term industrial SCM performance. The study states that "extended sampling over the course of the permit would provide greater assurance of continued effective stormwater management and help identify adverse effects from modifications in facility operation and personnel over time" (NRC, 65). Although the NRC recommended a minimum of continued annual benchmark monitoring through the permit term, for the 2021 MSGP EPA is requiring "two rounds" of quarterly benchmark monitoring occurring in the first and fourth years of permit coverage. This schedule is more appropriate than continued annual monitoring for the MSGP because operators are already accustomed to the four-quarter sampling schedule, and the follow-up action protocol (AIM in Part 5.2) is also based on four-quarter averages.

Because some operators choose to sample more than the required number of times, EPA has included specific language in the permit that the extra samples may be used to calculate their benchmark monitoring average. Any additional sampling does not reduce the requirement that the monitoring be completed over a minimum of four calendar quarters. Therefore, additional samples collected in one quarter for this purpose cannot

replace sampling required in other quarters. (Note: the requirement for four calendar quarters of monitoring is not applicable to airports given that the monitoring requirements for that sector are related to winter application of deicing chemicals.)

The monitoring periods, detailed in Part 4.1.7, are as follows:

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

Part 4.2.2.4 Exception for Facilities in Climates with Irregular Stormwater Discharges

This Part allows for an exception from benchmark monitoring for facilities in climates with irregular stormwater discharges as described in Part 4.1.6 (e.g., areas where limited rainfall occurs during parts of the year (e.g., arid or semi-arid climates) or in areas where freezing conditions exist that prevent discharges from occurring for extended periods). EPA is retaining this exception from the 2015 MSGP to provide flexibility to those operators in these climates. Such operators may modify the quarterly schedule provided the operator reports the revised schedule directly to EPA by the due date of the first benchmark sample (see EPA Regional contacts in Part 7.8), and the operator keeps this revised schedule with the facility's SWPPP as specified in Part 6.5. When conditions prevent the operator from obtaining four samples in four consecutive quarters, they must continue monitoring until they have the four samples required for calculating the benchmark monitoring average. As noted in Part 4.1.7, the operator must use the DMR form to indicate any 3-month interval that it did not take a sample.

Part 4.2.2.5 Exception for Inactive and Unstaffed Facilities

This Part allows for an exception from benchmark monitoring for facilities that are both inactive and unstaffed, when such facilities no longer have industrial activities or materials exposed to stormwater. EPA is retaining this exception because these facilities will not be contributing pollutants in stormwater discharges. These facilities could alternatively submit a No Exposure Certification terminating permit coverage. However, EPA realizes that some facilities plan to recommence industrial activity in the future and therefore may wish to keep active permit coverage. To qualify for this exception, a facility must maintain a signed certification with their SWPPP documentation (Part 6.5 of the permit) that indicates that the site is inactive and unstaffed, and that there are no industrial activities or materials exposed to stormwater. Operators are not required to obtain advance approval for this exception. The 2021 MSGP retains the allowance for inactive and unstaffed sites in the mining industry (i.e., Sectors G, H, and J) to qualify for this exception where some industrial activities or materials are still exposed to stormwater. This provision is included for mining sites because of the large number of extremely remote sites in these sectors, and the impracticability/infeasibility of reaching these sites during qualifying storm events. However, these sites must still be identified in a SWPPP, and must still adopt SCMs to minimize pollutant discharges and meet water quality standards.

The permit clarifies that if circumstances change and industrial materials or activities become exposed to stormwater or facilities become active and/or staffed, this exception no longer applies and operators must immediately begin complying with the applicable benchmark monitoring requirements under Part 4.2.2 as if they were in the first year of permit coverage, and notify EPA of the change in the NOI by submitting a "Change NOI" form. In the same way, if an operator does not qualify for this exception at the time it is

authorized to discharge, but during the permit term the facility becomes inactive and unstaffed, and there are no industrial materials or activities that are exposed to stormwater, then the operator must notify EPA of this change in the "Change NOI" form. The operator may discontinue benchmark monitoring once they have done so and have prepared and signed the statement described above concerning their qualification for this special exception.

Part 4.2.3 Effluent Limitations Monitoring

Numeric effluent limitations have been included in previous versions of the MSGP, based on national effluent limitation guidelines for certain industry-specific discharges (see Part 4.2.3). Consistent with minimum monitoring requirements for NPDES permit limits established at 40 CFR 122.44(i), operators must monitor for these parameters at least once each year for the duration of permit coverage. Numeric effluent limitations are specified in the sector-specific requirements in Part 8. Monitoring for all parameters must be conducted according to the procedures in Part 4.1 unless otherwise noted.

The 2021 MSGP retains the requirement for corrective action whenever there is an exceedance of a numeric effluent limitation.

Part 4.2.3.2 clarifies that facilities subject to effluent limitation guidelines are required to monitor each discharge point discharging stormwater, and that the flexibility afforded for benchmark and impaired waters monitoring for substantially identical discharge points (SIDPs) does not apply to effluent limitation guidelines monitoring.

EPA also clarifies that, in contrast to benchmarks, an exceedance of an effluent limitation constitutes a violation of the permit. Failure to conduct required corrective action and follow-up monitoring as required in Part 4.2.3.3 is an additional violation.

Additionally, facilities that use coal simply for steam generation are not subject to numeric effluent limitations. Applicable control measures for these facilities must be selected, designed, installed, and implemented consistent with the stormwater control requirements established in Part 2 of the permit.

Part 4.2.3.3 specifies follow-up monitoring requirements for pollutants that exceed any effluent limitation contained in the permit. EPA is maintaining the requirement to conduct follow-up monitoring as a way to ensure that facilities come back into compliance with applicable effluent limitations as soon as possible. While the NPDES regulations require a minimum of annual monitoring to demonstrate compliance with applicable effluent limitations, the vast majority of NPDES permits for industrial wastewater discharges require more frequent monitoring (up to daily for certain pollutants/sources in some instances). Monitoring at the regulatory minimum of once per year is appropriate for stormwater discharges, provided facilities remain in compliance with the numeric effluent limitations. However, it is appropriate to require more frequent monitoring once the effluent limitation is exceeded. Otherwise, there would be an additional year to wait to confirm that facilities have come back into compliance with the limitation. This is an unacceptably long period for facilities to be potentially out of compliance with the limitation. EPA notes that failure to complete follow-up monitoring and reporting within the stipulated timeframes constitutes additional violations of the permit, in addition to the initial effluent limitation violation.

Consistent with other types of effluent monitoring, the permit requires that operators report follow-up monitoring results to EPA through EPA's DMR system (see Part 7). Procedures and timeframes for reporting exceedances of numeric effluent limitations are described in Part 7.5 of this Fact Sheet.

Part 4.2.4 State or Tribal Required Monitoring

Where a state or tribe has imposed a numeric effluent limitation, has established a wasteload allocation, or has stipulated specific monitoring requirement(s) as a condition for certification under CWA Section 401, a minimum monitoring frequency of once-per-year has been included in the permit. This annual monitoring frequency applies only if a state or tribe does not specify an alternative monitoring frequency. Exceedances of state or tribal numeric effluent limitations are permit violations in the same way as exceedances of effluent limitation guidelines-based limitations are violations. Both types of violations require the same corrective action and follow-up monitoring.

Part 4.2.5 Impaired Waters Monitoring

This Part contains provisions for monitoring stormwater discharges to water quality impaired receiving waters. The following is a step-by-step discussion on how an operator should determine appropriate monitoring requirements.

Operators must indicate in their NOI whether they discharge stormwater to an impaired water, and, if so, the pollutants causing the impairment, or any pollutants for which there is a TMDL. To assist operators in determining their receiving waters' information, NeT will automatically provide receiving waters' information and their impairment status based on the latitude and longitude of stormwater discharge points the operator provides on the NOI form. This information is also readily accessible from the state or tribal integrated report/CWA section 303(d) lists of waters.

If the discharge is to an impaired water, the monitoring requirements under Part 4.2.5 are triggered; otherwise, a facility has no obligations under Part 4.2.5. EPA specifies that facilities will be considered to discharge to an impaired water if the first water of the United States to which they discharge is identified by a state, tribe, or EPA pursuant to section 303(d) of the CWA as not meeting an applicable water quality standard, or has been removed from the 303(d) list because the impairments are addressed in an EPA-approved or established TMDL, or is covered by pollution control requirements that meet the requirements of 40 CFR 130.7(b)(1). For discharges that enter a separate storm sewer system prior to discharge, the first water of the United States discharged to is the waterbody that receives the stormwater discharge from the storm sewer system.

When developing TMDLs, EPA and the states evaluate contributions from upstream segments and contributing waterbodies. As such, in some instances, upstream sources may be identified as a contributor to an impairment. Where EPA has reason to believe that stormwater discharges at permitted facilities will not be controlled as necessary to meet applicable water quality standards, notwithstanding any indication in a facility's NOIs that it does not discharge to an impaired water, EPA may require the operator to perform additional monitoring and/or adopt additional control measures to address the potential contribution to the impairment, i.e., to ensure that the discharge is controlled as necessary to meet water quality standards. In these instances, EPA will notify the operator, in writing, of any additional obligations, including monitoring requirements, to meet such water quality-based effluent limit.

The permit requires facilities to monitor for all pollutants for which the receiving waterbody is impaired, with a few noteworthy exceptions as discussed below. For waters impaired by pollutants without an approved TMDL, monitoring is required where a standard analytical test method in 40 CFR Part 136 exists for the pollutant or surrogate parameter. If the pollutant for which the waterbody is impaired is suspended solids, turbidity or sediment/sedimentation, the parameter to be monitored is total suspended solids (TSS). If

the pollutant of concern is an indicator or surrogate pollutant, then the pollutant indicator (e.g., dissolved oxygen) must be monitored. No monitoring is required when a waterbody's biological communities are impaired but no pollutant is specified as causing the impairment, or when a waterbody's impairment is related to hydrologic modification, impaired hydrology, or other non-pollutant (e.g., exotic species, habitat alterations, objectionable deposits). If a TMDL has been approved or established that applies to the discharge, EPA will notify the facility of any monitoring requirements based on any assumptions and requirements of the TMDL and any wasteload allocation for the discharge.

Part 4.2.5.1 Facilities Required to Monitor Discharges to Impaired Waters

The appropriate impaired waters monitoring frequency is determined based on whether there is an approved or established TMDL for the pollutant in the impaired water.

Discharges to impaired waters without an EPA-approved or established TMDL

For those operators discharging stormwater to impaired waters without an approved or established TMDL, monitoring is required for each discharge point discharging to an impaired water. Operators must monitor once per year in the first and fourth years of permit coverage, unless the operator detects a pollutant in the stormwater discharge for which a receiving water is impaired, in which case annual monitoring must continue. In general, the monitoring schedule is as follows: one year of monitoring for all pollutants for which the receiving water is impaired (in year one of permit coverage) followed by two years without monitoring; one year of monitoring resumes for a sub-set of parameters (in year four of permit coverage). Impaired waters monitoring begins in the first year of permit coverage (beginning in the first full quarter of permit coverage following either May 30, 2021 or the date of discharge authorization, whichever date comes later. Just as in the 2015 MSGP, the 2021 MSGP requires monitoring for one year at each discharge point for all pollutants for which the waterbody is impaired, or their surrogates, and using a standard analytical method, provided one exists (see 40 CFR Part 136). However, unlike the 2015 MSGP, which allowed operators to discontinue impaired waters monitoring for the remainder of their permit coverage after one year if the pollutant was not detected or expected in the discharge, the 2021 MSGP allows operators to discontinue monitoring for just the next two years for any pollutant that is not detected. Annual monitoring must continue for any pollutant that is detected in the discharge for which the receiving water is impaired.

After two years (i.e., in year four of permit coverage), the 2021 MSGP requires that all operators resume monitoring for a sub-set of pollutants initially monitored for in the first year: pollutants (or their indicators or surrogates) that are both causing impairments and associated with the operator's industrial activity and/or are listed as a required benchmark parameter for the operator's subsector in Part 8 and, if applicable, Part 9. To determine this list of pollutants for which the operator must conduct benchmark monitoring for in the fourth year of permit coverage, operators should start with the list of pollutants for which the waterbody is impaired and for which a standard analytical method exists (see 40 CFR Part 136), then compare that list to the industrial pollutants identified in Part 6.2.3.2 and any sector-specific benchmark monitoring pollutants in Part 8, and if applicable, Part 9. The operator must monitor for pollutants that appear on both the impairments list and either the industrial pollutants and/or benchmark list, including "indicator" or "surrogate" pollutants, to understand the extent to which pollutants associated with their industrial activity are contributing to impairments. Operators may discontinue monitoring for the remainder of their permit coverage for any pollutants that are not detected in year four. The extended impaired waters monitoring schedule under the 2021 MSGP will ensure that operators affirmatively determine in their first year of permit coverage that a parameter causing an

impairment is not present in the facility's stormwater discharge before narrowing the list of monitored parameters in the fourth year. Requiring monitoring in years one and four allows for a periodic check on the operator's potential contribution to impairments during their permit coverage. The basis for discontinuing impaired waters monitoring under this Part must be documented and retained with the SWPPP, including if the operator has determined that the presence of a pollutant in their discharge is caused solely by natural background sources. Operators are advised to follow the same guidance provided in Part 5.2.6 of this Fact Sheet in determining if the natural background exception is applicable. Operators should consult the applicable EPA Regional Office for help, if needed. The same exception may also be available to dischargers of pollutants attributed solely to run-on sources. This exception is only available after discussing the situation and receiving guidance and approval from the applicable EPA Regional Office.

Operators should consult the applicable EPA Regional Office for any available guidance regarding required monitoring parameters under this Part. EPA notes that, as with all six types of monitoring in the 2021 MSGP, operators can combine monitoring activities where requirements are duplicative (e.g., if effluent limitation guidelines-based limits or benchmark monitoring requirements and impaired water monitoring both require testing for the same parameter at the same discharge point).

Discharges to impaired waters with an EPA-approved or established TMDL

If a facility discharges stormwater to an impaired water with an approved or established TMDL, operators are not required to monitor for the pollutant(s) for which the TMDL was written unless EPA informs the operator that they are subject to such a requirement consistent with the assumptions and requirements of the TMDL and its wasteload allocation. Where applicable, EPA's notice will include specification on which pollutant(s) to monitor and the required monitoring frequency.

The monitoring requirements in Part 4.2.5 are intended to provide the states and EPA with further information on the impacts stormwater from permitted industrial facilities have on impaired waters, and to help ensure that the facilities are not causing or contributing to the impairment. For discharges to impaired waters that do not yet have an approved TMDL for pollutants of concern, these monitoring data are important for developing the TMDL to identify potential sources of the pollutants causing the impairment(s) as well as to identify sources that are not likely to contribute to the impairment(s) and thus may not be included in the TMDL or its wasteload allocation. They are also important for assessing whether additional water quality-based effluent limits, either numeric or qualitative, are necessary on a site-specific basis to ensure that facilities meet water quality standards. For discharges of pollutants to waters with an approved or established TMDL, monitoring data provides a means of ensuring that discharges are controlled consistent with the TMDL, as well as a useful tool to assess the operator's progress toward achieving necessary pollutant reductions consistent with any wasteload allocation.

Part 4.2.5.2 Exception for Inactive and Unstaffed Facilities

This Part of the permit includes an exception from impaired waters monitoring for facilities that are both inactive and unstaffed, when such facilities no longer have industrial activities or materials exposed to stormwater. This exception has different requirements for Sectors G, H, and J.

Part 4.2.6 Additional Monitoring Required by EPA

EPA may determine that additional stormwater discharge monitoring is necessary to meet the permit's effluent limits, specifically the permit's water quality-based effluent limit. In this case, EPA will provide the appropriate facility with a brief description of why additional monitoring is needed, locations and parameters to be monitored, frequency and period of monitoring, sample types, and reporting requirements.

Part 5 Corrective Actions and Additional Implementation Measures (AIM)

The 2021 MSGP retains the corrective action conditions in Part 5.1.1 to ensure effluent limits are met and Part 5.1.2 when construction or a change in design, operation, or maintenance occurs, and corresponding corrective action deadlines in Part 5.1.3, which remain unchanged from the 2015 MSGP. Those corrective action conditions in Part 5.1.1 include an unauthorized release, an exceedance of numeric effluent limits, failed or improperly installed SCMs, and visual assessments indicating water quality standards may be violated. The corrective action condition in Part 5.1.2 applies when construction or a change in design, operation, or maintenance at the facility occurs that significantly changes the nature of pollutants discharged via stormwater from the facility, or significantly increases the quantity of pollutants discharged. If any conditions in Part 5.1.1 or 5.1.2 occurred, Part 5.1.3 requires that the operator implement timely fixes so that the condition triggering the issue is resolved.

Previous MSGPs also required corrective action in the event of an exceedance of a benchmark monitoring threshold. The 2015 MSGP required the operator to review the SWPPP and adjust SCMs, depending on the facility's assessment, to bring any exceedances below the benchmark threshold, and continue quarterly monitoring until no further exceedance occurred.

The 2021 MSGP contains revisions to those corrective actions required for benchmark exceedances, now called Additional Implementation Measures (AIM). The 2021 MSGP AIM requirements keep follow-up actions for benchmark exceedances clear, timely, and proportional to exceedance frequency and duration. The new AIM requirements provide a sequential, stepwise follow-up process if advancement through the AIM levels is warranted. This process provides more regulatory certainty as to what is required of an operator and in what timeframe once a benchmark triggering event occurs. The new requirements also facilitate the identification of any issues and implementation of any follow-up responses in a timely manner and addresses previous stakeholder concerns that the prior MSGP's corrective actions were not sufficient to ensure that discharges under the permit are sufficiently controlled to protect water quality. The 2015 MSGP's corrective actions for benchmark exceedances may have allowed facilities to only make minimal changes, or no changes, in their SWPPP or to their SCMs, which may have led to limited stormwater control measure effectiveness. Under the 2015 MSGP's requirements, facilities' benchmark exceedances as well as their attempts to reduce pollutant levels below the benchmark thresholds could potentially continue in an endless loop, without clear expectations in the permit for how to improve the necessary response, if warranted, nor for how to comply with certainty.

The new AIM process leads the operator through a linear, three-level response triggered by a four-quarter annual average exceedance of a benchmark, or by fewer than four quarterly samples, but where a single sample or the sum of any sample results within the sampling year exceeds the benchmark threshold by more than four times for a parameter, indicating an exceedance is mathematically certain (i.e., the sum of quarterly sample

results to date is already more than four times the benchmark threshold). Stepwise advancement through AIM indicates repeated benchmark exceedances and prescribes increasingly robust controls with each subsequent level. In the 2021 MSGP, AIM levels are sequential, and levels cannot be skipped. In other words, an operator would need to progress from baseline status to Level 1 before progressing to Level 2, and Level 2 before progressing to Level 3. The operator is in the best position to evaluate the initial cause of their benchmark exceedance, and should have the opportunity to self-correct in AIM Level 1 before advancing to Level 2 or subsequently to Level 3, in which additional SCMs are no longer optional but required. EPA renamed the three-stages of AIM to be “levels” rather than “tiers,” as it was called during the proposal of the permit, based on public comment to reduce any confusion related to identical terminology related to the tiers of waterbodies for antidegradation purposes (e.g., tier 3 waters) that may also be applicable for some facilities.

However, EPA has always and continues to hold that benchmark thresholds by themselves are not numeric water quality-based effluent limits (or any effluent limit); and therefore, facilities whose responses to benchmark exceedances comply with the permit’s requirements, but do not achieve sub-benchmark pollutant levels, would not be in violation of the permit solely on the basis of the benchmark exceedances because a benchmark exceedance is not definitive proof that a water quality standard has been exceeded. The 2021 MSGP provides a clearer and more robust process to improve the previous permit’s requirements for responding to benchmark exceedances, facilitating the examination and implementation of additional actions that an operator must reasonably take to lower pollutant levels in stormwater discharges and provide effective stormwater control.

The 2021 MSGP’s AIM requirements improve upon the 2015 MSGP’s provisions for responding to benchmark exceedances through a three-stage protocol that gets progressively more prescriptive with the required responses, and thus more protective, when the average of quarterly monitoring results exceed or repeatedly exceed benchmark thresholds. There are three stages of response, known in the final 2021 MSGP as “Additional Implementation Measures,” so-named to bolster EPA’s long-held position that benchmark exceedances alone are not permit violations. The AIM protocol is triggered if an operator has a four-quarterly annual sampling average exceedance, including averages from fewer than four quarters of sampling that demonstrate the annual average will inevitably be exceeded. The AIM triggering events are: (a) The four-quarterly annual average for a parameter exceeds the benchmark threshold; and (b), Fewer than four quarterly samples have been collected, but a single sample or the sum of any sample results within the sampling year exceeds the benchmark threshold by more than four times for a parameter, indicating an exceedance of the annual average is mathematically certain (i.e., the sum of quarterly sample results to date is already more than four times the benchmark threshold). The AIM requirements apply on a parameter-specific, per discharge point basis and supplement, as opposed to supplant, the technology-based, water quality-based, and remaining provisions of the permit. Regarding annual averages, their calculation (i.e., the clock) is reset upon triggering and complying with each AIM level individually and demonstrating that the relevant discharge is below the benchmark threshold for the exceeded parameter. An operator with sampling results that show a triggering event has occurred must continue benchmark monitoring for the same parameter that caused the triggering event until four additional quarters of monitoring do not prompt a triggering event. In addition to the triggering events noted above, the new AIM requirements also detail the required responses, deadlines for implementing those responses, and allowable exceptions.

For the next proposed MSGP, EPA will evaluate the benchmark monitoring data submitted under this permit along with data on the AIM levels triggered by any benchmark

exceedances to analyze the effectiveness of the AIM response requirements (i.e., implementing more robust SCMs) on reducing benchmark exceedances.

Part 5.1 Corrective Action

Part 5.1.1 Conditions Requiring SWPPP Review and Revision to Ensure Effluent Limits are Met

As discussed above, the corrective actions conditions in this Part and corresponding corrective action deadlines in Part 5.1.3 remain unchanged from the 2015 MSGP. If operators find that any of the conditions in this Part of the 2021 MSGP have occurred, they are required to review and revise their SWPPP to eliminate the condition so that the permit's effluent limits are met and pollutant discharges are minimized. Operators may become aware of these conditions through an inspection, monitoring, or other means, or if EPA informs the operator of the condition(s).

The SWPPP review should focus on sources of pollution, spill and leak procedures, non-stormwater discharges, selection, design, installation and implementation of stormwater control measures. This Part of the 2021 MSGP specifies the following conditions requiring review and revision to ensure effluent limits are met, which are identical to the correction action triggering conditions in the 2015 MSGP:

- An unauthorized release or discharge (e.g., spill, leak, or discharge of non-stormwater not authorized by the MSGP or another NPDES permit) occurring at the facility.
- A discharge that violates a numeric effluent limitation listed in Table 2-1 and/or in the Part 8 sector-specific requirements.
- Control measures that are not stringent enough for the discharge to be controlled as necessary to meet applicable water quality standards or the non-numeric effluent limits in the permit.
- Where a required stormwater control measure was never installed, was installed incorrectly, or not in accordance with Parts 2 and/or 8, or is not being properly operated or maintained.
- Whenever a visual assessment shows evidence of stormwater pollution (e.g., color, odor, floating solids, settled solids, suspended solids, foam).

Part 5.1.2 Conditions Requiring SWPPP Review to Determine if Modifications Are Necessary.

This Part retains the requirement from the 2015 MSGP that if construction or a change in design, operation, or maintenance at the facility occurs that significantly changes the nature of pollutants discharged via stormwater from the facility, or significantly increases the quantity of pollutants discharged, the operator must review the SWPPP (e.g., sources of pollution, spill and leak procedures, non-stormwater discharges, selection, design, installation and implementation of control measures) to determine if modifications are necessary to meet the effluent limits in the permit. EPA had contemplated under the proposed 2020 MSGP moving this condition to the AIM section in Part 5.2, but based on public comments, this condition remains with the corrective action section for the 2021 MSGP.

Part 5.1.3 Deadlines for Corrective Actions

The 2021 MSGP includes specific deadlines for taking corrective actions to remedy deficiencies. These deadlines remain largely unchanged from the 2015 MSGP. The time limits in Part 5 are those that EPA considers reasonable for making the necessary repairs or

modifications and are included specifically so that inadequacies are not allowed to persist indefinitely.

When conditions exist that trigger corrective action, a facility must immediately take (i.e., on the same day the condition was found) all reasonable steps to minimize or prevent pollutant discharges via stormwater until the operator can implement a permanent solution

The permit's immediate actions are substantially similar to requirements in the 2015 MSGP. Minor changes are clarifying that "all reasonable steps" means responding to the conditions triggering the corrective action (the 2015 MSGP describes "all reasonable steps" to be undertaking initial actions to assess and address the condition causing the corrective action). Additionally, EPA clarifies in the permit that when corrective actions are identified too late in the work day, the corrective action must be performed by the following work day morning (the 2015 MSGP specified that corrective action be initiated the following work day). These changes provide greater assurance that corrective actions are implemented expeditiously to minimize pollutant discharges.

The 2021 MSGP requires that the operator take subsequent action to implement a permanent solution no later than 14 calendar days from discovering the corrective action-triggering condition (e.g., by installing a new or modifying an existing control or by completing any needed stormwater control measure repairs). This requirement has not changed from the 2015 MSGP.

EPA does recognize that there may be circumstances in which immediate action to initiate corrective action may not be possible within the same day a corrective action condition is found. "All reasonable steps" does not necessitate taking action when it is unsafe to do so (e.g., due to inclement weather). EPA also recognizes that there may be circumstances where it is not feasible to complete needed corrective actions within 14 days, and therefore provides that operators may modify the schedule for completing the corrective action so that corrective action is taken as soon as practicable after the 14-day timeframe, and is completed no later than 45 days after discovery of the triggering condition. If it will take longer than 45-days to complete the corrective action, the permit also allows operators to take the minimum additional time necessary to complete the corrective action, provided that the operator notifies the applicable EPA Regional Office. Operators must provide a rationale for an extension of the timeframe, and a corrective action completion date to the applicable EPA Regional Office, and also include this in their corrective action documentation.

EPA recognizes that identifying both the need to take corrective action and the appropriate modifications to the stormwater control measures will, in some cases, be an iterative process. Several storm events may be needed to determine how to fully resolve the triggering issue(s). For example, if a visual assessment indicates that the facility is discharging suspended solids in stormwater, an appropriate corrective action may be to immediately clean up any signs of visible sources of the pollutants on the site (e.g., through immediate sweeping or vacuuming of exposed surfaces), and then to review the SWPPP to identify additional potential deficiencies or pollutant sources. If poor housekeeping is suspected to be the cause, operators may decide to implement a new schedule of increased sweeping or vacuuming within 14 calendar days. However, if a subsequent visual assessment indicates that suspended solids remain a stormwater pollution issue that would be a separate corrective action-triggering event. In such a case, operators would undertake the corrective action review process again in order to assess and correct other deficiencies that are suspected to be the cause, meaning that the corrective action deadlines in Part 5.1.3 would be reset.

EPA emphasizes that these timeframes are not grace periods within which an operator is relieved of any liability for a permit violation that may have triggered the corrective action. If the original inadequacy triggering a corrective action constitutes a permit violation, then that violation is not deferred or erased by the timeframe EPA has allotted for corrective action. In all cases, failing to take corrective action as required in Part 5 constitutes a permit violation separate and apart from any violation that the triggering event may have constituted.

Part 5.1.4 Effect of Corrective Action

The permit states that if the condition triggering the corrective action review is a permit violation (e.g., exceedance of a numeric effluent limitation), correcting it does not remove the original violation. Additionally, failure to take corrective action in accordance with Part 5 is a separate permit violation (in addition to any permit violation that may have triggered corrective action). EPA will consider the appropriateness and promptness of corrective action in determining enforcement responses to permit violations. This provision is unchanged from the 2015 MSGP.

Part 5.1.5 Substantially Identical Discharge Points

If the event triggering corrective action is associated with a discharge point that has been identified as a “substantially identical discharge point” (SIDP) (see Parts 3.2.4.5 and 4.1.1), operators must assess the need for corrective action for all related SIDPs. Any necessary changes to control measures that affect these other discharge points must also be made before the next storm event if possible, or as soon as practicable following that storm event. Any corrective actions must be conducted within the timeframes set forth in Part 5.1.3.

Part 5.2 Additional Implementation Measures (AIM)

Part 5.2.1 Baseline Status

The 2021 MSGP includes a baseline status for all applicable facilities subject to benchmark monitoring once they receive authorization to discharge under Part 1.3, which is typically 30 calendar days after EPA notifies the operator that it has received a complete NOI. If benchmark monitoring results indicate an AIM triggering event has occurred and proceeding sequentially to AIM Level 1, 2, or 3, the operator may return directly to baseline status once the corresponding required response and conditions are met.

Part 5.2.2 AIM Triggering Events

The 2021 MSGP includes two AIM triggering events for all AIM levels and the triggering events do not change from level to level. The triggering events are based on quarterly samples that result in an exceedance of the annual average, including a one-sample exceedance, or two-, or three-sample average exceedance that result in a mathematically certain exceedance of the annual average. The two AIM triggering events are: (a) The four-quarterly annual average for a parameter exceeds the benchmark threshold, and (b) Fewer than four quarterly samples have been collected, but a single sample or the sum of any sample results within the sampling year exceeds the benchmark threshold by more than four times for a parameter. This result indicates an exceedance is mathematically certain (i.e., the sum of quarterly sample results to date is already more than four times the benchmark threshold). EPA notes that because pH is on a logarithmic scale, an annual average exceedance for pH can only occur if the four-quarter annual average exceeds the benchmark threshold. EPA is also developing a simple spreadsheet to assist operators with determining if their samples trigger AIM.

Requiring AIM for a one-sample exceedance, or two-, or three-sample average exceedance that indicates an annual average exceedance, is consistent with the equivalent triggering conditions in the 2015 MSGP and appropriate to ensure that facilities respond in a timely manner as soon as any potential issues are identified. Any quarterly sample collected that results in a benchmark exceedance based on mathematical certainty will trigger a timely response in accordance with the responses and deadlines specified in the permit.

The required responses for each AIM level are also consistent with the familiar recommended protocol contained within EPA's existing industrial stormwater sector-specific fact sheets, which suggest that the operator should first focus on reviews of existing control measures, stormwater pollution prevention plans, and other on-site activities to see if any actions or SWPPP revisions are necessary (as in AIM Level 1), then look at additional pollution prevention/good housekeeping measures that could be implemented (as in AIM Level 2), and finally structural source controls and/or treatment controls that could be installed (as in AIM Level 3).

The following is a discussion of each AIM level.

Part 5.2.3 AIM Level 1

An operator's baseline status will change to Level 1 status if quarterly benchmark monitoring results indicate that an AIM triggering event described above and in Part 5.2.2 has occurred, unless the operator qualifies for an exception under Part 5.2.6.

AIM Level 1 Example A: Benchmark Monitoring Results that would NOT trigger AIM

Below are example benchmark monitoring results that would NOT trigger any AIM requirements. In these results, AIM is not triggered **because the annual averages are below the benchmark threshold.**

Parameter	Benchmark	AIM 1 triggers:
Total Suspended Solids (TSS) (mg/L)	100 mg/L	<ul style="list-style-type: none"> A 4-quarter benchmark average = over 101 mg/L Fewer than four quarterly samples collected, but a single sample or the sum of any sample results exceeds the benchmark threshold by more than four times = over 401 mg/L

Samples	1 st Qtr.	2 nd Qtr.	3 rd Qtr.	4 th Qtr.	Sum to date	Sample Average
Ex. 1	50	150	25	25	250	63
Ex. 2	100	105	100	95	400	100
Ex. 3	0	400	0	0	400	100

**AIM Level 1 Example B:
Annual Average Over the Benchmark Threshold**

Below are example benchmark monitoring results that WOULD trigger AIM Level 1. In these results, AIM Level 1 is triggered **because the annual average exceeds the benchmark threshold** (or an exceedance of the four-quarter average is mathematically certain i.e., if the sum of quarterly sample results to date is more than four times the benchmark threshold).

Parameter	Benchmark	AIM triggers:
Total Suspended Solids (TSS) (mg/L)	100 mg/L	<ul style="list-style-type: none"> A 4-quarter benchmark average = over 101 mg/L Fewer than four quarterly samples collected, but a single sample or the sum of any sample results exceeds the benchmark threshold by more than four times = over 401 mg/L

Samples	1 st Qtr.	2 nd Qtr.	3 rd Qtr.	4 th Qtr.	Sum to date	Sample Average
Ex. 1	105	120	100	95 (Level 1 triggered)	420	105
Ex. 2	300	110 (Level 1 triggered)	* *		410	Over 101

In Example 1, AIM Level 1 is triggered in the 4th quarter because after 4 samples, the annual average ($105 + 120 + 100 + 95 = 420/4 = 105$ mg/L) exceeds the benchmark threshold (100 mg/L). AIM Level 1 responses must be completed within 14 days of receipt of laboratory results and quarterly benchmark monitoring must continue for at least the next four quarters.

In Example 2, AIM Level 1 is triggered in the 2nd quarter because the 1st and 2nd quarter results (300 mg/L and 110 mg/L) mean an exceedance of the four-quarter average of the benchmark threshold (100 mg/L) is mathematically certain, even if the 3rd and 4th quarter sampling results denoted by a * were 0 ($300 + 110 + 0 + 0 = 410/4 = 102.5$ mg/L). AIM Level 1 responses must be completed within 14 days of receipt of laboratory results in the 2nd quarter and quarterly benchmark monitoring must continue for at least the next four quarters.

Part 5.2.3.1 AIM Level 1 Responses

AIM Level 1 requires two responses plus continued quarterly monitoring. These responses are identical to required responses for a benchmark exceedance in the 2015 MSGP. First, the operator would need to immediately review existing control measures, SWPPP, and other on-site activities to see if any actions or SWPPP revisions are necessary. Examples of portions of the facility's control measures, SWPPP, and other on-site activities it should review include sources of pollution, spill and leak procedures, non-stormwater discharges, and selection, design, installation, and implementation of control measures. Second, after reviewing the control measures and SWPPP, the operator would implement those additional implementation measures, such as a single comprehensive clean-up, a change in subcontractor, a modification or replacement of an existing SCM, and/or increased inspections, to bring the exceedances below the parameter's benchmark threshold. However, an operator could determine that, after reviewing the stormwater control measures and SWPPP, nothing further needs to be done to achieve lower pollutant discharge levels. In this case, the operator would be required to document per Part 5.3 and include in the Annual Report why it expected its existing SWPPP and SCMs to bring exceedances below the parameter's benchmark threshold for the next 12-month period. With the variability of stormwater and the small sample set of monitoring results, it may be

reasonable for the operator to conclude that the current stormwater control measures are performing appropriately and further monitoring will support that the facility's existing controls will achieve the necessary pollutant reductions. This response mirrors the 2015 MSGP's corrective action response requirements.

Part 5.2.3.2 AIM Level 1 Deadlines

If any modifications to or additional control measures are necessary in response to AIM Level 1, the operator is required to implement those actions or modifications within 14 days of receipt of laboratory results. If doing so within 14 days is infeasible, the operator is required to document per Part 5.3 why it is infeasible to implement such actions or modifications within 45 days of receipt of laboratory results. The 2021 MSGP requires a 14-day deadline for AIM Level 1 responses because EPA expects Level 1 responses to be able to be implemented relatively quickly to address exceedances and any potential impacts on water quality. This deadline is consistent with the previous deadline for corrective actions for benchmark exceedances in the 2015 MSGP.

Part 5.2.3.3 Continued Quarterly Monitoring

After compliance with AIM Level 1 responses and deadlines, the operator is required to continue quarterly benchmark monitoring for the next four quarters for the parameter(s) that caused the AIM triggering event at all affected discharge points, beginning no later than the next full quarter after compliance. Even if AIM was triggered in the first quarter of the first year of monitoring, EPA requires that the operator comply with AIM Level 1 requirements at that time and continue quarterly monitoring until the next four-quarter average no longer exceeds the benchmark value.

Part 5.2.3.4 AIM Level 1 Status Updates

EPA specifies in this Part the conditions for returning to baseline status and the conditions under which an operator would proceed to the next AIM level. EPA included these conditions in the permit to clarify how an operator can reset the AIM process as well as how advancement to the next level would be determined. While in AIM Level 1 status, the operator may either return to baseline status, or if benchmark exceedances continue, progress to AIM Level 2. The operator's AIM Level 1 status will return to baseline status if the AIM Level 1 responses have been met and the continued quarterly benchmark monitoring results indicate that an AIM triggering event per Part 5.2.2 has not occurred after four quarters of monitoring (i.e., the benchmark threshold is no longer exceeded for the parameter(s)). The operator may discontinue benchmark monitoring for that parameter until monitoring resumes in year 4 of permit coverage per Part 4.2.2.3 or if the operator has fulfilled all benchmark monitoring requirements per Part 4.2.2.3 (i.e., quarterly monitoring is complete for both year 1 and 4 of permit coverage) then it may discontinue monitoring for that parameter for the remainder of permit coverage. The operator's AIM Level 1 status advances to AIM Level 2 status if the operator has completed AIM Level 1 responses and the benchmark threshold continues to be exceeded for the same parameter(s). These status update conditions are the same for each AIM level and do not change from level to level.

Part 5.2.4 AIM Level 2

An operator's AIM Level 1 status changes to AIM Level 2 if the continued quarterly benchmark monitoring results indicate that an AIM triggering event per Part 5.2.2 has occurred (i.e., the benchmark threshold continues to be exceeded for the parameter(s)), unless the operator qualifies for an exception per Part 5.2.6.

Just like in the 2015 MSGP and just as for AIM Level 1, if fewer than four quarterly samples indicate it is mathematically certain that a benchmark would be exceeded prior to collecting all quarterly samples, then the operator must respond accordingly.

AIM Level 2 Examples:

In AIM Level 1 and Next Annual Average Is Over the Benchmark Threshold

Below are example benchmark monitoring results that would trigger AIM Level 2. In these results, AIM Level 2 is triggered **because the operator is in AIM Level 1 and the next annual average exceeds the benchmark threshold** (or an exceedance of the four-quarter average is mathematically certain, i.e., if the sum of quarterly sample results to date is more than four times the benchmark threshold).

Parameter	Benchmark	AIM triggers:
Total Suspended Solids (TSS) (mg/L)	100 mg/L	<ul style="list-style-type: none"> A 4-quarter benchmark average = over 101 mg/L Fewer than four quarterly samples collected, but a single sample or the sum of any sample results exceeds the benchmark threshold by more than four times = over 401 mg/L

Example 1	First four quarters of monitoring						
	Samples	1 st Qtr.	2 nd Qtr.	3 rd Qtr.	4 th Qtr.	Sum to date	Sample Average
	Ex. 1	105	120	100	95 (Level 1 triggered)	420	105
	Continued quarterly monitoring while in AIM Level 1						
	Samples	1 st Qtr.	2 nd Qtr.	3 rd Qtr.	4 th Qtr.	Sum to date	Sample Average
	Ex. 1	115	100	90	135 (Level 2 triggered)	440	110

Example 2	First four quarters of monitoring						
	Samples	1 st Qtr.	2 nd Qtr.	3 rd Qtr.	4 th Qtr.	Sum to date	Sample Average
	Ex. 2	300	110 (Level 1 triggered)	*	*	410	Over 101
	Continued quarterly monitoring while in AIM Level 1						
	Samples	1 st Qtr.	2 nd Qtr.	3 rd Qtr.	4 th Qtr.	Sum to date	Sample Average
	Ex. 2	150	270 (Level 2 triggered)	**	**	420	Over 101

In Example 1, AIM Level 1 is triggered in the 4th quarter of the first four quarters of monitoring because after 4 samples, the annual average ($105 + 120 + 100 + 95 = 420/4 = 105$ mg/L) is above the benchmark threshold (100 mg/L). Once AIM Level 1 responses and deadlines are met, quarterly benchmark monitoring must continue for the next four quarters. While in AIM Level 1, a triggering event occurs again in the 4th quarter because after another 4 quarterly samples, the annual average ($115 + 100 + 90 + 135 = 440/4 = 110$ mg/L) is again above the benchmark threshold (100 mg/L). AIM Level 2 responses must be completed

within 14 days of receipt of laboratory results and quarterly benchmark monitoring must continue for the next four quarters.

In Example 2, AIM Level 1 is triggered in the 2nd quarter of the first four quarters of monitoring because the 1st and 2nd quarter results (300 mg/L and 110 mg/L) mean an exceedance of the four-quarter average of the benchmark threshold (100 mg/L) is mathematically certain, even if the 3rd and 4th quarter sampling results denoted by a * were 0 ($300 + 110 + 0 + 0 = 410/4 = 102.5$ mg/L). Once AIM Level 1 responses and deadlines are met, quarterly benchmark monitoring must continue for the next four quarters. While in AIM Level 1, a triggering event occurs in the 2nd quarter because, again, the 1st and 2nd quarter results (150 mg/L and 270 mg/L) mean an exceedance of the four-quarter average is mathematically certain, even if the 3rd and 4th quarter sampling results denoted by a ** were 0 ($150 + 270 + 0 + 0 = 420/4 = 105$ mg/L). AIM Level 2 responses must be completed within 14 days of receipt of laboratory results in the 2nd quarter and quarterly benchmark monitoring would continue for at least the next four quarters.

Part 5.2.4.1 AIM Level 2 Responses

Exceedances of AIM Level 2 magnitude warrant additional action. Therefore, after Level 2 is triggered, the Level 2 response requires the operator to implement additional pollution prevention/good housekeeping SCMs. EPA encourages facilities to consult the existing MSGP industrial stormwater sector-specific fact sheets for guidance on recommended SCMs appropriate to comply with AIM Level 2. Compliance with AIM Level 2 does not require the operator to implement *all* feasible SCMs from an appropriate sector-specific fact sheet, as contemplated in the proposal (previously, all fact sheets were compiled and named Appendix Q in the proposed permit). EPA received many comments on Appendix Q related to the relevancy of certain practices identified in the revised fact sheets. For example, one commenter indicated that the control measure “determine whether excessive application of deicing chemicals occurs and adjust as necessary” may potentially conflict with Federal Aviation Administration requirements and that other identified practices for Sector S (Air Transportation Facilities) were outdated and ineffective at airports. Some commenters also suggested that Appendix Q be converted to recommendations as guidance rather than contained in the permit itself. In light of the volume of comments, EPA retained the existing 2015 sector-specific fact sheet guidance for the 2021 MSGP to provide recommended controls and, over the course of the 2021 MSGP permit term, will work with external stakeholders to thoroughly review and revise, as needed, the checklists for future use.

To lower pollutant levels below benchmarks and better protect water quality, EPA requires operators to select those pollution prevention/good housekeeping SCMs best suited for their site-specific conditions, sources, and pollutants (if not already implemented) and to note those SCMs implemented per Part 5.3. This helps ensure that SCM selections are made with rigor and completeness, resulting in an effective SWPPP.

Part 5.2.4.2 AIM Level 2 Deadlines

The operator is required to select and implement additional pollution prevention/good housekeeping SCMs to comply with Level 2 within 14 days of receipt of laboratory results that indicate an AIM triggering event has occurred and document per Part 5.3 how the measures will achieve benchmark thresholds. If it is infeasible for the operator to implement a measure within 14 days, the operator may take up to 45 days to implement such measures, but must document per Part 5.3 why it was infeasible to do so within 14 days. EPA may also grant an extension beyond 45 days based on an appropriate demonstration by the operator. While persistent high levels of pollutants should be mitigated as soon as possible, EPA acknowledges that operators may need more time for actions such as planning and designing their SCMs. After full implementation of selected SCMs, an operator

must commence another cycle of quarterly benchmark monitoring for the next four quarters for all affected discharge points.

Part 5.2.4.3 Continued Quarterly Benchmark Monitoring

After compliance with AIM Level 2 responses and deadlines, the operator is required to continue quarterly benchmark monitoring for the next four quarters for the parameter(s) that caused the AIM triggering event at all affected discharge points, beginning no later than the next full quarter after compliance, as in Level 1.

Part 5.2.4.4 AIM Level 2 Status Updates

Just as in AIM Level 1, EPA specifies in this Part the conditions for returning to baseline status from Level 2 status, and the conditions under which an operator would proceed to AIM Level 3 status, if appropriate.

Part 5.2.5 AIM Level 3

An operator's AIM Level 2 status changes to AIM Level 3 if the continued quarterly benchmark monitoring results indicate that an AIM triggering event per Part 5.2.2 has occurred (i.e., the benchmark threshold continues to be exceeded for the parameter(s)), unless the operator qualifies for an exception per Part 5.2.6.

AIM Level 3 Example:

In AIM Level 2 and Next Annual Average Is Over the Benchmark Threshold

Below are example benchmark monitoring results that would trigger AIM Level 3. In these results, AIM Level 3 is triggered **because the operator is in AIM Level 2 and the next annual average exceeds the benchmark threshold** (or an exceedance of the four-quarter average is mathematically certain, i.e., if the sum of quarterly sample results to date is more than four times the benchmark threshold).

Parameter	Benchmark	AIM triggers:
Total Suspended Solids (TSS) (mg/L)	100 mg/L	<ul style="list-style-type: none"> A 4-quarter benchmark average = over 101 mg/L Fewer than four quarterly samples collected, but a single sample or the sum of any sample results exceeds the benchmark threshold by more than four times = over 401 mg/L

Example 1	First four quarters of monitoring						
	Samples	1 st Qtr.	2 nd Qtr.	3 rd Qtr.	4 th Qtr.	Sum to date	Sample Average
	Ex. 1	105	120	100	95 (Level 1 triggered)	420	105
	Continued quarterly monitoring while in AIM Level 1						
	Samples	1 st Qtr.	2 nd Qtr.	3 rd Qtr.	4 th Qtr.	Sum to date	Sample Average
	Ex. 1	115	100	90	135 (Level 2 triggered)	440	110
	Continued quarterly monitoring while in AIM Level 2						
	Samples	1 st Qtr.	2 nd Qtr.	3 rd Qtr.	4 th Qtr.	Sum to date	Sample Average
	Ex. 1	85	150	105	120 (Level 3 triggered)	460	115

Example 2	First four quarters of monitoring						
	Samples	1 st Qtr.	2 nd Qtr.	3 rd Qtr.	4 th Qtr.	Sum to date	Sample Average
	Ex. 2	300	110 (Level 1 triggered)	*	*	410	Over 101
	Continued quarterly monitoring while in AIM Level 1						
	Samples	1 st Qtr.	2 nd Qtr.	3 rd Qtr.	4 th Qtr.	Sum to date	Sample Average
	Ex. 2	150	270 (Level 2 triggered)	**	**	420	Over 101
	Continued quarterly monitoring while in AIM Level 2						
	Samples	1 st Qtr.	2 nd Qtr.	3 rd Qtr.	4 th Qtr.	Sum to date	Sample Average
	Ex. 2	200	240 (Level 3 triggered)	***	***	440	Over 101

In Example 1, AIM Level 1 is triggered in the 4th quarter of the first four quarters of monitoring because after 4 samples, the annual average ($105 + 120 + 100 + 95 = 420/4 = 105$ mg/L) is above the benchmark threshold (100 mg/L). Once AIM Level 1 responses and deadlines are met, quarterly benchmark monitoring must continue for the next four quarters. While in AIM Level 1, a triggering event occurs again in the 4th quarter because after another 4 quarterly samples, the annual average ($115 + 100 + 90 + 135 = 440/4 = 110$ mg/L) is again above the benchmark threshold (100 mg/L). AIM Level 2 responses must be completed within 14 days of receipt of laboratory results and quarterly benchmark monitoring must continue for at least the next four quarters. While in AIM Level 2, a triggering event occurs again in the 4th quarter because after another 4 samples, the annual average ($85 + 150 + 105 + 120 = 460/4 = 115$ mg/L) is again above the benchmark threshold (100 mg/L). AIM Level 3 responses must be completed within the required deadlines of receipt of laboratory results and quarterly benchmark monitoring must continue for at least the next four quarters.

In Example 2, AIM Level 1 is triggered in the 2nd quarter of the first four quarters of monitoring because the 1st and 2nd quarter results (300 mg/L and 110 mg/L) mean an exceedance of the four-quarter average of the benchmark threshold (100 mg/L) is mathematically certain, even if the 3rd and 4th quarter sampling results denoted by a * were 0 ($300 + 110 + 0 + 0 = 410/4 = 102.5$ mg/L). Once AIM Level 1 responses and deadlines are met, quarterly benchmark monitoring must continue for the next four quarters. While in AIM Level 1, a triggering event occurs in the 2nd quarter because, again, the 1st and 2nd quarter results (150 mg/L and 270 mg/L) mean an exceedance of the four-quarter average is mathematically certain, even if the 3rd and 4th quarter sampling results denoted by a ** were 0 ($150 + 270 + 0 + 0 = 420/4 = 105$ mg/L). AIM Level 2 responses must be completed within 14 days of receipt of laboratory results in the 2nd quarter and quarterly benchmark monitoring must continue for at least the next four quarters. While in AIM Level 2, a triggering event occurs in the 2nd quarter because, again, the 1st and 2nd quarter results (200 mg/L and 240 mg/L) mean an exceedance of the four-quarter average is mathematically certain even if the 3rd and 4th quarter sampling results denoted by a *** were 0 ($200 + 240 + 0 + 0 = 440/4 = 110$ mg/L). AIM Level 3 responses must be completed within the required deadlines of receipt of laboratory results and quarterly benchmark monitoring must continue for at least the next four quarters.

Part 5.2.5.1 AIM Level 3 Responses

The AIM Level 3 response requires an operator to implement one or more permanent, structural or treatment train technologies appropriate for the exceeded pollutants. Treatment removes pollutants from effluent rather than the more prevalent stormwater approach of pollution prevention. Structural controls could include building structures to prevent stormwater from being discharged. Treatment and structural controls are not required until AIM Level 3 due to the complexity and cost to the operator and are

mandated only when earlier attempts to lower pollutants via pollution prevention/good housekeeping and other procedural changes fail to do so in AIM Levels 1 and 2. EPA expects that few operators will advance to AIM Level 3 after completing AIM Levels 1 and 2.

Part 5.2.5.2 AIM Level 3 Deadlines

In the 2021 MSGP, EPA is allowing additional time for operators to identify and install structural source and/or treatment control measures under AIM Level 3. AIM Level 3 requires that operators must identify the schedule for installing the appropriate structural source and/or treatment control measures within 14 days and install the identified measures within 60 days of the Level 3 triggering event. If it is not feasible within 60 days, the operator may take up to 90 days to install such measures, documenting per Part 5.3 why it is infeasible to install the measure within 60 days. EPA may also grant an extension beyond 90 days based on an appropriate demonstration by the operator.

Part 5.2.5.3 Continued Quarterly Benchmark Monitoring

After compliance with AIM Level 3 responses and deadlines, the operator is required to continue quarterly benchmark monitoring for the next four quarters for the parameter(s) that caused the AIM triggering event at all affected discharge points, beginning no later than the next full quarter after compliance, as in AIM Levels 1 and 2.

Part 5.2.5.4 AIM Level 3 Status Updates

Just as in AIM Levels 1 and 2, EPA specifies in this Part the conditions for returning to baseline status from Level 3 status, and the conditions under which an operator would remain in AIM Level 3 status. If after AIM Level 3 compliance, the operator continues to exceed the benchmark threshold for the same parameter, EPA may require the operator to apply for an individual permit. At this stage, circumstances at the facility could indicate that the discharge is no longer appropriately controlled under the general permit (40 C.F.R. 122.28(b)(3)(E)). More site-specific requirements tailored to address the facility's stormwater discharges under an individual permit may be appropriate if benchmark exceedances continue to occur despite implementation of standard SCMs required to comply with this general permit.

Part 5.2.6 AIM Exceptions

This Part of the 2021 MSGP includes five exceptions that could allow an operator to be relieved of compliance with AIM requirements and continued benchmark monitoring at any AIM level. Two exceptions are carry-overs from the 2015 MSGP: one being that the exceedance was caused by natural background levels of pollutants causing the elevated levels and the other being that the exceedance was caused by run-on from a neighboring source which elevates the operator's pollutant levels, which requires EPA approval before the operator can qualify for this exception. Three additional exceptions are included in the 2021 MSGP as well: one being that the exceedance was an abnormal event; one for discharges of copper and aluminum using facility-specific criteria; and the other that the exceedance does not result in any exceedance of water quality standards. EPA notes that these exceptions are not available for effluent limitation monitoring (Part 4.2.3). Details on each exception are discussed below.

The 2021 MSGP does not include an exception for feasibility, such as one found in the 2015 MSGP (i.e., no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice). This exception to AIM is inappropriate in the 2021 MSGP for several reasons. Feasibility considerations are not

relevant at AIM Level 1 because the operator can self-determine that no additional measures are warranted, as well as AIM Level 2 where the operator can select pollution prevention/house-keeping measures they deem appropriate. At AIM Level 3, repeated benchmark exceedances have occurred to a point at which implementation of permanent stormwater control measures is warranted. Industrial stormwater discharges are explicitly required to meet all provisions of CWA §301, including applicable water quality standards (CWA §402(p)(3)(A)).

Part 5.2.6.1 Details on AIM Exception due to Natural Background Pollutant Levels

EPA maintains from the 2015 MSGP the option for operators to justify benchmark exceedances based on local natural background concentrations. This Part allows for an exception from AIM requirements and continued benchmark monitoring when natural background levels are solely responsible for the exceedance of a benchmark threshold. This can be determined if (1) natural background pollutant concentrations are greater than the corresponding benchmark threshold, and (2) there is no net facility contribution of the pollutant (i.e., the four-quarter average concentration detected in the discharge from all monitored discharge points minus the average natural concentration of the parameter does not exceed zero). An operator is eligible for the exception provided that all the following conditions are met, and the operator submits an analysis and documentation to the applicable EPA Regional Office upon request:

- The four-quarter average concentration of benchmark monitoring results (or fewer than four-quarters of data that trigger an exceedance) is less than or equal to the concentration of that pollutant in the natural background; and
- The operator documents and maintains with the SWPPP, as required in Part 6.5, the supporting rationale for concluding that benchmark exceedances are in fact attributable solely to natural background pollutant levels. The operator must include in the supporting rationale any data previously collected by the operator or others (including literature studies) that describe the levels of natural background pollutants in the stormwater discharge. Natural background pollutants are those substances that are naturally occurring in soils or groundwater. Natural background pollutants do not include legacy pollutants from earlier activity on your site, or pollutants in run-on from neighboring sources which are not naturally occurring, such as other industrial facilities or roadways.

This natural background exception could apply to parameters such as metals derived from natural mineral deposits and nutrients attributable to background soil, vegetation, or wildlife sources. Natural background levels cannot be attributed to run-on from non-natural sources such as other industrial sites or roadways (however, per Part 5.2.6.2, a facility may be eligible to discontinue monitoring for pollutants that occur solely from run-on sources). If background concentrations are not responsible for the benchmark exceedance, the operator will need to comply with the applicable AIM requirements, per Part 5.2. Operators must use the same sample collection, preservation, and analysis methods for natural background monitoring as required for benchmark monitoring.

If operators experience average benchmark exceedances for one or more pollutants during coverage under the 2021 MSGP or suspect that they might have benchmark exceedances caused entirely by natural background, they can begin monitoring the natural background pollutant concentrations from a non-human impacted reference site concurrently with required benchmark monitoring and compliance with AIM requirements. After monitoring for four quarters and adequately determining that exceedances are the

result of pollutants present in the natural background, operators may discontinue AIM responses and additional benchmark sampling if all conditions in Part 5.2.6.2 are met. The following is a list of information the operator must document and maintain with the SWPPP, as required by Part 5 to support a rationale for the natural background exception:

- Map showing the reference site location in relation to facility along with available land cover information;
- Reference site and facility site elevation;
- Available geology and soil information for reference and facility sites;
- Photographs showing reference site vegetation;
- Reference site reconnaissance survey data regarding presence of roads, discharge points, or other human-made structures; and
- Records from relevant state or federal agencies indicating no known mining, forestry, or other human activities upstream of the reference site.

The background concentration of a pollutant in discharges from a non-human impacted reference site in the same watershed should be determined by evaluating ambient monitoring data or by using information from a peer-reviewed publication or a local, state, or federal government publication specific to stormwater in the immediate region. Studies that are in other geographic areas, or are based on clearly different topographies or soils, are not appropriate. When no data are available, and there are no known sources of the pollutant, the background concentration should be assumed to be zero. In cases where historic monitoring data from a site are used for generating a natural background value, and the site is no longer accessible or able to meet reference site acceptability criteria, then there must be documentation (e.g., historic land use maps) that the site met reference site criteria (indicating absence of human activity) during the time data collection occurred.

The justification for this exception must be kept on-site with the facilities' SWPPP (see Part 6.5) and made available to EPA upon request. EPA may review the operator's determinations that a benchmark exceedance is based solely on natural background concentrations and disallow the exception if the Agency finds the documentation inadequate. Operators that have previously made a determination that benchmark exceedances are attributable solely to the presence of that pollutant in the natural background may be able to rely on a previous analysis and rationale for waiving compliance with AIM requirements and discontinuing benchmark monitoring under the 2021 MSGP. However, these operators must conduct four quarters of benchmark monitoring in the first year of permit coverage under the 2021 MSGP and the results must continue to show that the average concentration of pollutants in the facility's discharge are less than or equal to the concentration of that pollutant in the natural background. In such circumstances, there is no ongoing burden to comply with AIM requirements or to expend additional resources in justifying the rationale for meeting this exception, and benchmark monitoring can be discontinued for the duration of the permit.

EPA is maintaining the 2015 MSGP's method for determining natural background pollutant concentrations in relation to this exception. Under the proposed MSGP, EPA had contemplated changing the threshold for the natural background exception for benchmark exceedances from the 2015 MSGP threshold. The approach used in the 2015 MSGP (as well as the preceding 2008 MSGP) required the average concentration of the benchmark monitoring results to be at or below natural background levels to qualify for the exception. By comparison, under the proposed method in the proposed 2020 MSGP, the

operator would qualify for the exception if the four-quarter average concentration of the benchmark monitoring results minus the concentration of that pollutant in the natural background is less than or equal to the benchmark threshold. Essentially, but for the natural background contribution, the operator's discharge would meet the benchmark threshold. The difference between the two approaches is that in the proposed method, an operator could subtract from the benchmark results from the value attributable to natural background.

EPA contemplated this revised subtraction method based on previous stakeholder feedback that the 2015 MSGP standard for the exception was burdensome because it required the operator to demonstrate no net facility contributions, meaning the four-quarter average concentration detected in discharges from all monitored discharge points minus the average natural concentration of the parameter could not exceed zero. However, EPA did retain in the proposal that the exception is allowed only when "the benchmark exceedance is *solely attributable* to the presence of that pollutant in natural background sources," because the burden on the operator to meet the exception is outweighed by the potential effect on water quality from uncontrolled pollutant contributions.

After further consideration of the rationale behind the 2015 MSGP's (and 2008 MSGP's) approach and review of public comments, which both supported and opposed the newly proposed subtraction method, EPA is retaining the 2015 MSGP approach to applying the natural background exception for several reasons.

First, the 2015 MSGP approach is consistent with existing EPA policy concerning the establishment of site-specific water quality criteria based on natural background conditions. See EPA's Office of Science and Technology memorandum, Establishing Site Specific Aquatic Life Criteria Equal to Natural Background (November 5, 1997). The policy states that aquatic life criteria should be equal to natural background, defined as background concentration due only to non-anthropogenic sources, i.e., non-manmade sources. Upon reconsideration of the proposed 2020 MSGP approach, which would have enabled the facility to subtract out the amount of the pollutant attributable to natural background from the pollutant levels found in the benchmark sample, EPA found that it would be inconsistent with the "solely attributable" standard EPA intends to maintain in the MSGP and the longstanding EPA policy referenced above. Since many of EPA's benchmark thresholds are based on aquatic life criteria (see 60 Fed. Reg. 50,804, 50,825 (Sept. 29, 1995)), the principles discussed in this policy are appropriate to uphold when establishing a natural background exception for benchmark exceedances.

Additionally, as stated in EPA's response to comment document for the 2015 MSGP, "EPA's long-standing position, consistent with the CWA and EPA's permitting regulations, is that operators are responsible for the quality of their discharges, regardless of what may be added as a result of run-on from other sources or legacy/anthropomorphic sources of pollutants." Additionally, the 2015 MSGP response to comments stated that "the CWA does not allow EPA or states to set a site-specific criteria equal to the natural background plus an otherwise protective level ... since doing so could raise the level of the pollutant in the water body that might [be] above the natural background, which would not be protective of aquatic life, at a minimum." See *Natural Background Exception to Benchmark Monitoring* (p. 5-6) in Response to Public Comments – EPA NPDES 2015 Multi-Sector General Permit (MSGP), June 4, 2015. EPA maintains that this principle applies to benchmark monitoring and Additional Implementation Measures.

Public comments also raised a variety of concerns to EPA that the proposed subtraction method is counter to the “solely attributable” standard and is not appropriate for the MSGP. Commenters pointed out that the proposed subtraction method does not limit the exception to situations where benchmark exceedances are “solely attributable” to natural background sources, but rather it flipped the standard to excuse an exceedance if it was solely attributable to the operator’s discharges, substantially weakening the effectiveness of the benchmark monitoring requirements. Commenters also noted that the subtraction method does not account for the proportion of flow due to natural background sources in the discharge and assumes that the natural background flows are equal to the stormwater discharge flows, meaning the proposed exception would allow operators to contribute pollutants in amounts greater than the benchmark and could cause or contribute to water quality impairments. The proposed subtraction method essentially would allow operators to contribute higher concentrations to receiving waters than previously allowed without triggering AIM. This is not EPA’s intention with this exception.

Additionally, as EPA expects that more operators would have qualified for the exception under the proposed subtraction method and been excused of from controlling their pollutant contributions to their benchmark exceedances, the Agency must prioritize reducing the cumulative and compounding effect on water quality in its decision to not revise the exception and maintain the 2015 MSGP standard in the 2021 MSGP.

Part 5.2.6.2 Details on AIM Exception due to Run-On

This operator is not required to comply with AIM responses or continued benchmark monitoring for any parameters for which it can demonstrate and obtain EPA agreement that run-on from a neighboring source (i.e., a source external to the facility) is the cause of the exceedance, provided that all the following conditions are met and the operator submits its analysis and documentation to the applicable EPA Regional Office for concurrence:

- After reviewing and revising the SWPPP, as appropriate, the operator must notify the other facility or entity contributing run-on to the discharges and request that they abate their pollutant contribution.
- If the other facility or entity fails to take action to address their discharges or sources of pollutants, the operator must contact the applicable EPA Regional Office.

Part 5.2.6.3 Details on AIM Exception due to an Abnormal Event

The operator is not required to comply with AIM responses or continued benchmark monitoring for any parameters for which it immediately documents per Part 5.3 that the single event causing the exceedance was an abnormal event, a description explaining what caused the abnormal event, how any control measures taken within 14 days of such event will prevent a reoccurrence of the exceedance, and the operator takes a sample during the next qualifying precipitation event that is less than the benchmark threshold, in which case the operator does not trigger any AIM requirements based on the abnormal event. This new sample is the sample that should be reported in Net-DMR and used to calculate your annual average.

The operator may avail itself of the “abnormal” demonstration exception at any AIM Level, but only one time per parameter, per discharge point, which shall include substantially identical discharge points (SIDPs), for the duration of their permit coverage, provided the operator qualifies for the exception. EPA expects that the operator will ensure the abnormal event for the parameter does not occur repeatedly given that the nature of the event is

atypical of the discharge quality. EPA also requires the operator to explain what caused the abnormal event as part of the documentation for this exception.

Part 5.2.6.4 For Aluminum and Copper benchmark parameters only: Details on AIM Exception due to demonstration that benchmark exceedance does not result in an exceedance of a facility-specific value using the national recommended water quality criteria in-lieu of the applicable MSGP benchmark threshold.

To be eligible for the exception, the operator must demonstrate to EPA that their discharge(s) that exceeded the applicable nationally representative MSGP benchmark threshold would not result in an exceedance of a derived facility-specific value. The demonstration to EPA, which will be made publicly available, must meet the minimum elements below in order to be considered for and approved by the applicable EPA Regional Office. Operators that exceed the MSGP benchmark for aluminum or copper must still comply with any AIM requirements and additional benchmark monitoring until the demonstration is made to and approved by the applicable EPA Regional Office. In this case, EPA suggests that samples collected for any continued benchmark monitoring also be analyzed for the required input parameters for each model for efficiency. For existing operators that anticipate an exceedance of the MSGP benchmark(s) based on previous monitoring data and expect to utilize this exception(s), EPA recommends those operators begin the required data collection in their first year of permit coverage.

Aluminum:

- Conditions of this exception include:
 - Use of EPA's 2018 National Recommended Aluminum Aquatic Life Criteria: <https://www.epa.gov/wqc/aquatic-life-criteria-aluminum>;
 - In-stream waterbody sampling for the three water quality input parameters for the recommended criteria model: pH, total hardness, and dissolved organic carbon (DOC);
 - Completion of sampling events sufficient to capture spatial and temporal variability. Sampling events must adequately represent each applicable season at the facility's location, which would likely be over the course of at least one year. An equal number of ambient waterbody samples must be collected at a single upstream and downstream location from the operator's discharge point(s) to the receiving water of the United States. Where there exists no ambient source water upstream of the operator's discharge point(s) to the receiving water of the United States, samples of the ambient downstream waterbody conditions are sufficient.
- The demonstration provided to EPA must include, at minimum:
 - A description of the sampling, analysis, and quality assurance procedures that were followed for data collection, following the guidance in Section 3 of EPA's Industrial Stormwater Monitoring and Sampling Guide. https://www.epa.gov/sites/production/files/2015-11/documents/msgp_monitoring_guide.pdf;
 - The input parameters and export of results from the Aluminum Criteria Calculator, available at: <https://www.epa.gov/sites/production/files/2018-12/aluminum-criteria-calculator-v20.xlsm>; and,
 - A narrative summary of results.

Copper (only for discharges to freshwater):

- Conditions for this exception are:
 - Use of EPA's 2007 National Recommended Freshwater Copper Aquatic Life Criteria: <https://www.epa.gov/wqc/aquatic-life-criteria-copper> ;
 - In-stream waterbody sampling for the 10 water quality input parameters to the BLM for copper: pH; dissolved organic carbon (DOC); alkalinity; temperature; major cations (calcium, magnesium, sodium, and potassium); and major anions (sulfate, chloride);
 - The water quality input parameters, with the exception of temperature, must fall within the range of conditions recommended for use in the BLM, found in Table 1-1 of the Data Requirements document: <https://www.epa.gov/sites/production/files/2015-11/documents/copper-data-requirements-training.pdf>; and
 - Completion of sampling events sufficient to capture spatial and temporal variability. Because some of the BLM input parameters are known to vary seasonally, EPA suggests a possible starting point of at least one sampling event per season.⁸ Sampling events must adequately represent each applicable season at the facility's location, which would likely be over the course of at least one year. An equal number of ambient waterbody samples must be collected at a single upstream and downstream location from the operator's discharge point(s) to the receiving water of the United States. Where there exists no ambient source water upstream of the operator's discharge point(s) to the receiving water of the United States, samples of the ambient downstream waterbody conditions are sufficient. This is the minimum number of samples to adequately characterize the spatial and temporal variability of the site.
- The demonstration provided to EPA must include, at minimum:
 - A description of the sampling, analysis, and quality assurance procedures that were followed for data collection, following the guidance in Section 3 of EPA's Industrial Stormwater Monitoring and Sampling Guide. https://www.epa.gov/sites/production/files/2015-11/documents/msgp_monitoring_guide.pdf;
 - A discussion of how the data collected reflects the site-specific characteristics and how the operator considered special circumstances that may affect copper toxicity throughout the expected range of receiving water conditions;
 - The input file and export of the results from the BLM software, which can be requested at: <https://www.epa.gov/wqs-tech/copper-biotic-ligand-model>;

⁸ EPA training materials on Copper BLM for Data Requirements states that spatial variability in the BLM input parameters caused by physical factors such as watershed size or the presence or absence of a point source discharge(s) to a waterbody should also be considered when determining how many sampling events should be collected when using the BLM to develop site-specific copper criteria. Spatial variability in the BLM input parameters should also be considered when determining how many sampling locations should be selected for development of site-specific copper criteria using the BLM. Regardless of the number of sampling events involved, data collection should reflect site-specific characteristics and consider special circumstances that may affect copper toxicity throughout the expected range of receiving water conditions. See <https://www.epa.gov/sites/production/files/2015-11/documents/copper-data-requirements-training.pdf>.

and,

- o A narrative summary of results.

Part 5.2.6.5 Details on AIM Exception due to demonstration that benchmark exceedance does not result in any exceedance of water quality standards:

The operator is not required to comply with AIM requirements or continued benchmark monitoring for any parameters for which it has acquired sufficient data and generates an analysis that demonstrates that its discharges do not and will not result in any exceedance of a water quality standard. EPA notes that this exception is available to all AIM levels, but a robust analysis must be completed and submitted to EPA before qualifying for the exception.

The demonstration to EPA, which will be made publicly available, must be made within 30 days of the AIM triggering event. If it is not feasible to complete this demonstration within 30 days, the operator may take up to 90 days, documenting in the SWPPP why it is infeasible to complete the demonstration within 30 days. EPA may also grant an extension beyond 90 days, based on an appropriate demonstration by the operator. The demonstration must include the following minimum elements in order to be considered for approval by EPA and would likely rely upon computer models, such as Storm Water Management Model (SWMM), Distributed Routing Rainfall-Runoff Model (DR3M) and Hydrological Simulation Program-Fortran (HSPF), to make such a case:

1. the water quality standards applicable to the receiving water;
2. the average flow rate of the stormwater discharge;
3. the average instream flow rates of the receiving water immediately upstream (if applicable) and downstream of the discharge point;
4. the ambient concentration of the parameter(s) of concern in the receiving water immediately upstream (if applicable) and downstream of the discharge point demonstrated by full-storm composite sampling;
5. the concentration of the parameter(s) of concern in the stormwater discharge demonstrated by full-storm, flow-weighted composite sampling;
6. any relevant dilution factors applicable to the discharge; and
7. the hardness of the receiving water.

Timeframe of EPA Review of the Submitted Demonstration: EPA will review and either approve or disapprove of such demonstration within 90 days of receipt (EPA may take up to 180 days upon notice to the operator before the 90th day that EPA needs additional time).

- **EPA Approval of the Submitted Demonstration.** If EPA approves such demonstration within this timeframe, the operator has met the requirements for this exception and does not have to comply with the corresponding AIM requirements and continued benchmark monitoring.
- **EPA Disapproval of the Submitted Demonstration.** If EPA disapproves such demonstration within this timeframe, the operator must comply with the corresponding AIM requirements and continued benchmark monitoring, as required. Compliance with the AIM requirements would begin from the date

EPA notifies the operator of the disapproval unless you submit a Notice of Dispute to the applicable EPA Regional Office in Part 7 within 30 days of EPA's disapproval.

- **EPA Does Not Provide Response Related to the Submitted Demonstration.** If EPA does not provide a response on the demonstration within this timeframe, the operator may submit to the applicable EPA Regional Office in Part 7 a Notice of Dispute.
- **Operator Submittal of Notice of Dispute.** The operator may submit all relevant materials, including support for your demonstration and all notices and responses to the Water Division Director for the applicable EPA Region to review within 30 days of EPA's disapproval or after 90 days (or 180 days if EPA has provided notice that it needs more time) of not receiving a response from EPA.
- **EPA Review of Notice of Dispute.** EPA will send the operator a response within 30 days of receipt of the Notice of Dispute. Time for action by the operator upon disapproval shall be tolled during the period from filing of the Notice of Dispute until the decision on the Notice of Dispute is issued by the Water Division Director for the applicable EPA Region.

Part 5.3 Corrective Action and AIM Documentation

For any event described in Parts 5.1, 5.2.3, 5.2.4, or 5.2.5, the operator must document basic information describing the condition that requires corrective action and/or the AIM triggering event, and their response to that event. As described previously, the permit establishes conditions for both immediate and longer response periods. The operator must maintain a copy of this documentation with their SWPPP as well as summarize this information in the Annual Report. These documentation requirements are substantially similar to the 2015 MSGP.

Part 6 Stormwater Pollution Prevention Plan (SWPPP)

This Part requires operators to develop a SWPPP to document the specific control measures they will use to meet the limits contained in Part 2, Part 8 (if applicable), and Part 9 (if applicable), as well as to document compliance with other permit requirements (e.g., monitoring, recordkeeping, reporting). The SWPPP itself does not contain effluent limits; rather, it constitutes a tool to assist operators, inspectors, and other authorities in ensuring and documenting that effluent limits are met. Per Part 6.3, this documentation must be kept up-to-date (e.g., with inspection findings, after stormwater control measures are modified). Failure to develop and maintain a current SWPPP is a recordkeeping violation of the permit, and is separate and distinct from a violation of any of the other substantive requirements in the permit, such as effluent limits, corrective action, inspections, monitoring, reporting, and sector- or state-specific requirements. For the 2021 MSGP, EPA added a clarification in this Part that facilities should consider the SWPPP to be a living document and that keeping the SWPPP up-to-date-also entails making revisions and improvements to their stormwater management program based on new information and experiences with major storm events.

To be covered under the MSGP, operators must complete a SWPPP prior to submitting an NOI for permit coverage (existing MSGP-permitted facilities must update their existing SWPPP). Doing so helps to ensure that operators have (1) taken steps to identify all sources of pollutant discharges via stormwater; and (2) implemented appropriate measures to control these discharges in advance of authorization to discharge under the new permit.

This Part contains most of the required elements to be documented in the SWPPP; however, sector-specific SWPPP documentation requirements are also included in Part 8 of the permit. Those permit elements that all facilities must document include: 1) the establishment of a stormwater pollution prevention team; 2) a description of the site; 3) a summary of potential pollutant sources; 4) a description of stormwater control measures; 5) monitoring and inspection procedures (including schedules); 6) documentation to support eligibility considerations under other federal laws; and 7) signature requirements.

Note that any discharges not expressly authorized in the MSGP cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA, state, or local authorities after issuance of this permit via any means, including the NOI to be covered by the permit, the SWPPP, during an inspection, etc.

Part 6.1 Person(s) Responsible for Preparing the SWPPP

This Part requires that the operator prepare the SWPPP in accordance with good engineering practices and to industry standards. Examinations of SWPPPs during inspections have found some SWPPPs to be generic and minimal rather than detailed and site-specific.

With respect to the SWPPP preparation standards requirement, the SWPPP may be developed by either the facility/operator itself or a contractor, but in all cases the person or party that develops the SWPPP must be a "qualified person" as defined in Appendix A, and the SWPPP must be certified per the signature requirements in Part 6.2.7. A "qualified person" is defined in Appendix A as a person "knowledgeable in the principles and practices of industrial stormwater controls and pollution prevention, and who possesses the education and ability to assess conditions at the industrial facility that could impact stormwater quality, and the education and ability to assess the effectiveness of stormwater controls selected and installed to meet the requirements of the permit." Requiring that the SWPPP be developed by a qualified person and then certified provides accountability and increases the chance that SWPPPs will be available to and followed by facility personnel. Regardless of the SWPPP certification, EPA may still determine after reviewing a SWPPP that it is not in compliance with the requirements of Part 6.2. In this instance, EPA may require the SWPPP to be reviewed, amended as necessary, and certified by a Professional Engineer with the education and experience necessary to prepare an adequate SWPPP. For the mining sectors (G, H and J), the certifier may also be a Professional Geologist. This professional credentials requirement option is for severely and/or persistently deficient SWPPPs. This requirement engenders no additional burden when the permit is fully complied with originally.

Part 6.2 Required Contents of Your SWPPP

The SWPPP must address the specific requirements in this Part. Operators may choose to reference other documents in their SWPPP, as appropriate, rather than recreating the same text in the SWPPP. However, when referencing other documents, operators are responsible for ensuring that their SWPPP and the other documents referenced together contain all the necessary elements to fully address the elements in Part 6.2. In addition, operators must ensure that a copy of the referenced document is in an accessible format that can be made immediately available to facility employees, EPA, a state or tribe, etc., per Part 6.4, such as Spill Prevention, Control and Countermeasure (SPCC) plans. Regardless of whether all required SWPPP components are combined into one document, operators should keep an index that identifies where individual SWPPP components are addressed.

Part 6.2.1 Stormwater Pollution Prevention Team

The operator must identify a qualified individual or team responsible for developing and revising the facility's SWPPP. These persons are responsible for implementing and maintaining the stormwater control measures to meet effluent limits, and taking corrective action and/or AIM responses where necessary. Personnel should be chosen for their expertise in the relevant departments at the facility to ensure that all aspects of facility operations are considered in developing the plan. The SWPPP must clearly describe the responsibilities of each team member to ensure that each aspect of the plan is covered. EPA expects most operators will have more than one individual on the team, except for small facilities with relatively simple plans and/or staff limitations. The permit requires that team members have ready access to any applicable portions of the SWPPP and the permit. Identification of the team in the plan provides notice to facility staff and management (i.e., those responsible for signing and certifying the SWPPP) of the responsibilities of certain key staff for following through on compliance with the permit's conditions and limits.

Part 6.2.2 Site Description

The SWPPP must describe the industrial activities, materials employed, and physical features of the facility that may contribute significant amounts of pollutants in stormwater discharges. The SWPPP must also contain both a general location map of the facility that shows where the facility is in relationship to receiving waters of the United States and other geographical features, plus a more detailed site map that contains information on facility/site characteristics that affect stormwater discharge quality and quantity. For areas of the facility that generate stormwater discharges associated with industrial activity that contain potentially significant quantities of pollutants (i.e., pollutant amounts that could cause a water quality standards exceedance), the map must indicate the probable direction of stormwater flow and the pollutants likely to be in the discharge. Flows with a significant potential to cause soil erosion must be identified. The site map must also include locations of such things as: boundaries and size (in acres) of the property; location and extent of significant structures and impervious surfaces; stormwater control measures; receiving waters; stormwater conveyances, inlets and discharge points; potential pollutant sources; locations of past significant spills or leaks; locations of stormwater monitoring points; municipal separate storm sewer systems and where the stormwater discharge enters to them (if applicable); areas of designated critical habitat for Endangered Species Act (ESA)-listed species (if applicable); and locations of the activities listed in Part 6.2.2.3(m), including locations and sources of run-on to operators' sites (see the permit for a complete list of required items). To improve readability of the map, some detailed information may be kept as an attachment to the site map and pictures may be included, as deemed appropriate. A detailed site description and site map assists operators in identifying issues and setting priorities for the selection, design and implementation of measures taken to meet effluent limits, and in identifying potential changes in materials, materials management practices, or site features. It is also vital for executing proper inspections.

Part 6.2.3 Summary of Potential Pollutant Sources

This Part requires operators to identify in the SWPPP the potential sources of pollutants from industrial activities that could result in contaminated stormwater discharges, unauthorized non-stormwater discharges, and potential sources of authorized non-stormwater discharges. "Stormwater discharges associated with industrial activities" is defined, pursuant to 40 CFR 122.26(b)(14), to include, but not be limited to: stormwater 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 waste waters; 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 stormwater. The term "material handling activities" is defined in the permit to include storage, loading and unloading, transportation or conveyance of any raw material, intermediate product, final product, by-product or waste product. "Stormwater discharges associated with industrial activities" does not include areas located at a facility separate from the facility's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with stormwater drained from the above described areas. Part 6.2.3 is only applicable to those portions of a facility covered under the permit, but the areas of the facility not covered under the MSGP should be identified and an explanation provided as to why such areas need not be covered.

Note that potential pollution sources include a facility's roof(s) and other surfaces that could accumulate pollutants originating from an industrial process and deposited through the air. Roofs, walls, etc., exposed to emissions from industrial areas can build up such pollutants over dry periods, which can be mobilized during a rain event or in snowmelt, so the operator needs to identify these areas and include them in the SWPPP. Likewise, industrial structures containing materials that could become pollutants discharged in stormwater (e.g., copper cladding on buildings or zinc from galvanized fences) must also be identified as potential pollutant sources.

For each area that may be a pollutant source at the site, operators must describe the following:

Part 6.2.3.1 Activities in the Area

This description must include a list of the industrial activities exposed to stormwater (see the list above), including any co-located industrial activities that may be exposed to stormwater.

Part 6.2.3.2 Pollutants

For each of the industrial activities described above, operators must document the associated pollutants or pollutant constituents (e.g., biochemical oxygen demand, suspended solids). The pollutant list must include all significant materials that have been handled, treated, stored or disposed, and exposed to stormwater in the three years prior to the date the operator prepares or amends their SWPPP. The SWPPP must also include any additional significant materials that may become a pollutant source that the operator plans to use during the permit's term.

EPA defines "significant materials," per 40 CFR 122.26(b)(12) and in Appendix A of the MSGP 2021, as including but not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the operator is required to report pursuant to section 313 of title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA); fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges.

CERCLA section 101(14) defines "hazardous substance" to include: a) any substance designated pursuant to the CWA section 311(b)(2)(A); b) any element, compound, mixture, solution or substance designated pursuant to section 102 of CERCLA; c) any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Resource Conservation and Recovery Act (RCRA); d) any toxic pollutant listed under CWA section 307(a); e) any hazardous air pollutant listed under section 112 of the Clean Air Act; and f) any imminently hazardous chemical substance or mixture with respect to which the Administrator has taken action pursuant to section 7 of the Toxic Substances Control Act. See 40 CFR 302.4 for the list of such hazardous substances.

Part 6.2.3.3 Spills and Leaks

The operator must document in the SWPPP where potential spills and leaks could occur that could contribute pollutants to stormwater discharges, and the corresponding discharge point(s) that could be affected by such spills and leaks. The pollutant list must include all significant materials that have been handled, treated, stored or disposed, and exposed to stormwater in the three years prior to SWPPP preparation or amendment. New owners/operators of existing facilities should try to identify any significant spills or leaks attributable to past owners (within reason). Significant spills include, but are not limited to, releases of oil or hazardous substances in excess of quantities that are reportable under section 311 of the CWA (see 40 CFR 110.10 and 40 CFR 117.21) or section 102 of CERCLA (see 40 CFR 302.4). Note that significant spills may also include releases of materials that are not classified as oil or hazardous substances. The list of significant spills and leaks should include a description of the causes of each spill or leak, the actions taken to respond to each release, and the actions taken to prevent similar spills or leaks in the future. This effort will aid operators in developing spill prevention and response procedures and any additional procedures necessary to fulfill the requirements per Part 2.1.2.4.

As required in Part 5.1.2 of the permit, the operator must document any spills or leaks that occur while covered under the permit. Documenting spills does not relieve operators of any reporting requirements established in 40 CFR 110, 40 CFR 117, and 40 CFR 302, or any other statutory requirements relating to spills or other releases of oils or hazardous substances.

Part 6.2.3.4 Unauthorized Non-Stormwater Discharges Evaluation

This Part requires the operator to evaluate and document unauthorized non-stormwater discharges as part of the SWPPP. The documentation must include: the date of any evaluation; a description of the evaluation criteria used; a list of the discharge points or onsite drainage points that were directly observed during the evaluation; if there are any unauthorized non-stormwater discharges, and, if so, the actions taken and/or control measures used to immediately eliminate those or documentation that shows the facility obtained an individual NPDES wastewater permit; and an explanation of everything done to immediately eliminate the unauthorized discharge per Part 5 corrective actions. EPA also includes added flexibility on the timing if it is infeasible to complete the evaluation within the first year of permit coverage. For example, this flexibility can allow operators with particularly large sites to complete their evaluations within a time frame that may take longer than one year. Operators unable to complete the evaluations within one year must document in the SWPPP why more time is needed and identify the schedule by which they expect to complete the evaluation.

Acceptable test or evaluation techniques include, but are not limited to, dye testing, television surveillance, visual observation of discharge points or other appropriate locations during dry weather, water balance calculations, and analysis of piping and drainage

schematics. A combination of these mechanisms may be appropriate to complete a thorough evaluation. In general, smoke tests should not be used for evaluating the discharge of non-stormwater to a municipal separate storm sewer as many sources of non-stormwater typically pass through a trap that may limit the effectiveness of the test. Where the operator discovers unauthorized non-stormwater discharges, the documentation must also include a description of how the facility immediately eliminated those discharges or a documentation showing the facility obtained an individual NPDES wastewater permit for those discharges.

Common unauthorized discharges and common resolutions include: re-routing sanitary wastes (e.g., sinks, drinking fountains, toilets) to sanitary sewer systems; obtaining an appropriate NPDES permit for cooling water or industrial process wastewater discharges; capping or plugging floor drains; and prohibiting practices such as paint brush washing or wash bucket dumping into storm drain inlets.

Where an operator identifies an unauthorized non-stormwater discharge, the operator must document in their SWPPP the location of that discharge and the appropriate control measures implemented to meet limits. In many cases, the same types of control measures for contaminated stormwater would suffice, but the nature and volume of potential pollutants in the non-stormwater discharges must be taken into consideration in selecting control measures.

Part 6.2.3.5 Salt Storage

The operator must identify in the SWPPP any storage piles containing salt, including piles that are only partially comprised of salt, used for deicing or other commercial or industrial purposes.

Part 6.2.3.6 Sampling Data

This Part requires existing MSGP-permitted facilities to summarize in their SWPPP all stormwater discharge sampling data collected during the previous permit term, as appropriate. Such a summary will support the identification of potential pollutants and pollutant sources at a facility and also the selection of source control practices to meet permit limits. The summary must include an adequately descriptive narrative and may also include data table/figures. Narrative summaries only are appropriate where available data is very limited or where data results and findings are otherwise easily and concisely conveyed in a brief paragraph. Summaries utilizing tables or charts are appropriate where more data are available. New dischargers must provide a summary of any available stormwater discharge sampling data that they may have, including the methods used to collect the data and the sample collection location.

Part 6.2.4 Description of Stormwater Control Measures to Meet Technology-Based and Water Quality-Based Effluent Limits

Operators must describe in their SWPPP the location and type of stormwater control measures implemented at their site to achieve each of the effluent limits in Parts 2.1.2, 2.1.3, 2.2, 2.3, 8 (if applicable) and 9 (if applicable), and to address any stormwater run-on that commingles with discharges covered under the permit. The description of the control measures must include the location and type of control implemented, including how the Part 2.1.1 selection and design considerations were followed, and how they address the pollutant sources in Part 6.2.3. EPA updates the example given to match the requirement in Part 2.1.2. The control measures in Part 2.1 marked with asterisks are not required to be elaborated on in the SWPPP beyond the inclusion of the requirement language word-for-

word. Further discussion of this relaxed documentation requirement is provided in Part 2.1 Stormwater Control Measures in this Fact Sheet.

Part 6.2.5 Schedules and Procedures

Part 6.2.5.1 Pertaining to Stormwater Control Measures Used to Comply with the Effluent Limits in Part 2

This Part specifies what schedules and operating procedures the operator must document in a SWPPP for the appropriate Part 2 effluent limits. Documenting these activities will help improve facility compliance with the requirements.

Good Housekeeping (see also Part 2.1.2.2). Document the schedule or the convention used for determining when pickup and disposal of waste materials occur, and also a schedule for routine inspections for leaks and conditions of drums, tanks and containers.

Maintenance (see also Part 2.1.2.3). Document the preventative maintenance procedures and schedules, including for regular inspections, testing, maintenance and repair of all stormwater control measures.

Spill Prevention and Response Procedures (see also Part 2.1.2.4). Document the procedures for preventing and responding to spills and leaks, including notification procedures. Document the stormwater control measures for material handling and storage, and the procedures for preventing spills that can contaminate stormwater. Also specify cleanup equipment, procedures and spill logs, as appropriate.

Erosion and Sediment Controls (see also Part 2.1.2.5). Identify any polymers and/or other chemical treatments used and the purpose.

Employee Training (see also Part 2.1.2.8). Document the content of the training and the frequency/schedule of training for employees who have duties in areas of industrial activities subject to this permit along with a log of the dates on which specific employees received training.

Part 6.2.5.2 Pertaining to Inspections and Assessments

This Part requires operators to document in their SWPPP the procedures to be followed for routine facility inspections (Part 3.1) and for quarterly visual assessments (Part 3.2). The SWPPP must include information such as person(s) or position(s) performing the inspections/assessments, the specific items to be covered by the inspections/assessments, and the respective schedules. Operators invoking the exception for inactive and unstaffed sites for quarterly inspections or visual assessments must provide information in the SWPPP to support such a claim.

Part 6.2.5.3 Pertaining to Monitoring

This Part requires operators to document in the SWPPP the specific monitoring requirements and procedures that they will follow. EPA added indicator monitoring to the list of analytical monitoring addressed in this Part. Operators must include information such as locations where samples are to be collected, person(s) or position(s) responsible for collecting samples, the frequency of sampling and the pollutants to be sampled, sampling protocols, natural background level information, if applicable, and procedures that will be followed to gather storm event data. Requiring this documentation helps ensure that operators know about their monitoring responsibilities and should improve facility compliance with the permit's requirements.

If operators choose to use the substantially identical discharge point (SIDP) exception for quarterly visual assessments (Part 3.2) or for indicator monitoring (Part 4.2.1), benchmark (Part 4.2.2), or impaired waters (Part 4.2.5) monitoring, they are required to describe in their SWPPP the locations of each SIDP, the general industrial activities conducted in the drainage area of each discharge point, the stormwater control measures being implemented for each discharge point, the exposed materials that are likely to be a significant contributor of pollutants to the stormwater discharge, an estimate of the runoff coefficient of the drainage area, and why the discharge points are expected to discharge substantially identical effluents.

Part 6.2.6 Documentation to Support Eligibility Considerations Under Other Federal Laws

Part 6.2.6.1 Documentation Regarding Endangered and Threatened Species and Critical Habitat Protection

This Part requires SWPPP documentation that supports operators' eligibility criterion selected per Part 1.1.4 and Appendix E related to the protection of species federally listed as endangered and threatened, including: whether listed species or critical habitat are found in proximity to the facility; a description of any communication between the operator and the U.S. Fish & Wildlife Service and/or the National Marine Fisheries Service (the Services); results of the listed species screening process; and, if applicable, a description of the measures implemented to protect the listed species or critical habitat. The operator must document this information to ensure it is properly eligible for permit coverage with regard to endangered species and may be separately reviewed by EPA and/or the Services.

Part 6.2.6.2 Documentation Regarding Historic Properties

With respect to the National Historic Preservation Act, the 2021 MSGP SWPPP documentation required for historic properties is the same as in the 2015 MSGP that supports operators' historic properties eligibility determination per Part 1.1.5 and Appendix F, including: results of their historic property screening investigations; whether stormwater discharges would have an effect on a property listed or eligible for listing on the National Register of Historic Properties (NRHP), a summary of any consultation with the State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO); and, if applicable, a description of the measures the operator will implement to avoid or minimize adverse impacts on historic properties. The operator must document this information to ensure it is properly eligible for permit coverage with regard to historic properties and may be separately reviewed by SHPOs/THPOs.

Part 6.2.7 Signature Requirements

This Part requires the operator to sign and date the SWPPP consistent with procedures detailed in Appendix B, Subsection 11 (a standard permit condition for signatory requirements, pursuant to 40 CFR 122.22). Operators may appoint an authorized representative consistent with EPA regulations if they think it is more appropriate for someone else to sign the SWPPP certification, e.g., a member of the stormwater pollution prevention plan team. The signature requirement includes an acknowledgment that there are significant penalties for submitting false information.

Part 6.3 Required SWPPP Modifications

This Part requires that the operator update the SWPPP whenever any of the triggering conditions for corrective action in Part 5.1 occur, or when a review following the triggering conditions in Part 5.1 indicates that changes to an operator's control measures are

necessary to meet the effluent limits in the permit. The SWPPP must be signed and dated by an authorized representative each time it is modified. Note that failure to update the SWPPP is a recordkeeping violation, not a violation of an effluent limit. For example, if an operator changes its maintenance procedures, but fails to update its SWPPP to reflect these changes, a recordkeeping violation will result.

Part 6.4 SWPPP Availability

Identical to the 2015 MSGP, this Part requires that a complete and current SWPPP be accessible in any format at the facility and must be immediately available to facility employees; EPA, a state, or tribe; the operator of an MS4 receiving discharges from the site; and representatives of the Services at the time of a site inspection. In addition, as described below, operators must make available either their SWPPP or certain information from their SWPPP to the public (except for any confidential business information (CBI) or restricted information [as defined in Appendix A]).

Enhanced transparency and public accessibility of required NPDES documentation are Agency priorities and will better enable the goals and requirements of the CWA to be met. Timely, complete, and accurate information regarding potential pollutant sources, the types and concentration of receiving water pollution, stormwater control measures implemented, etc., are vital for protecting water quality and can provide a powerful incentive to improve compliance and performance. Operators who object to making SWPPP information publicly available may instead apply for an individual NPDES permit.

Part 6.4.1 Making a SWPPP Publicly Available

The permit provides three options for meeting the requirement to make the operator's SWPPP or SWPPP information publicly available. Part 6.4.1.1 details the option to attach the SWPPP to the NOI. Part 6.4.1.2 details the option to provide a URL of the operator's SWPPP location on their NOI form. Part 6.4.1.3 details the option to provide SWPPP information on the NOI form. Operators using this option must post their SWPPP on their own website or on an associated website, i.e., a relevant and easily discerned website such as a corporate or government website, where the facility submitting the SWPPP is identified on the homepage and facility information is presented on and easily accessed at that website. Operators must post an updated SWPPP at least once a year no later than 45 days after conducting the final routine facility inspection for the year required in Part 3.1.

After an NOI is submitted, the URL would be accessible via EPA's Integrated Compliance Information System (ICIS) and Enforcement and Compliance History Online (ECHO) System. Although CBI and restricted information may be withheld from the public, such information may not be withheld from EPA or the Services.

Part 6.4.1.1 Attaching the SWPPP to the NOI

Unlike for the 2015 MSGP, operators now have the option to attach a copy of their SWPPPs, and any SWPPP modifications, records, and other reporting elements that must be kept with the SWPPP to their NOIs in NeT-MSGP. This new flexibility provides operators with a time-saving option to easily upload SWPPPs and other documents that must be kept with the SWPPP.

Part 6.4.1.2 Providing a URL of the SWPPP in the NOI

Operators who post their SWPPP on the internet may include the URL location in the NOI in NeT-MSGP and maintain the current SWPPP at this URL. Operators must post any SWPPP

modifications, records, and other reporting elements that must be kept with the SWPPP required for the previous year at the same URL as the main body of the SWPPP.

Part 6.4.1.3 Providing SWPPP Information in the NOI Form

This Part provides the third option for meeting the requirement for operators to make their SWPPP or SWPPP information publicly available. For those facilities with SWPPPs not in a format that lends themselves to being put online or that lack a website to host it, salient SWPPP information can be extracted or summarized and input into the NOI in NeT-MSGP. Although not as complete as an entire SWPPP, the information required, such as the control measures and control measures implemented to comply with the non-numeric technology-based effluent limits required in Part 2.1.2, will be sufficient for stakeholders to be aware of what a facility is doing to protect local resources and comply with permit provisions. Operators must post an updated SWPPP at least once a year no later than 45 days after conducting the final routine facility inspection for the year required in Part 3.1.

Part 6.5 Additional Documentation Requirements

This Part includes a list of documents, findings, activities and information that the operator must keep with the SWPPP. EPA requires documentation of various implementation activities, such as reports of routine facility inspections and descriptions of corrective actions and/or AIM responses, after facilities are authorized to discharge. This documentation is useful both for facility personnel and EPA (and other agencies') inspectors to assess overall performance of the control measures selected to meet the technology-based and water quality-based effluent limits in the permit.

Part 7 Reporting and Recordkeeping

Part 7.1 Electronic Reporting Requirement

Operators must comply with a number of different reporting requirements described throughout the 2021 MSGP. Part 7.1 requires all operators to submit all NOIs, NOTs, NECs, Annual Reports, and Discharge Monitoring Reports DMRs electronically, unless the EPA Regional Office has granted them a waiver. Waivers may only be granted on a case-by-case basis and must be based on one of the following conditions: (1) If the operator's headquarters is physically located in a geographic area (i.e., zip code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission; or (2) If the operator has significant issues regarding available computer access or computer capability. This requirement is consistent with EPA's NPDES Electronic Reporting Rule (80 FR 64063).

Part 7.2 Submitting Information to EPA

Part 7.2 includes a summary of all of the required information that the operator must submit to EPA. Operators must submit NOIs, Change NOIs, NECs, NOTs, and Annual Reports via EPA's electronic NPDES eReporting tool (NeT), unless the permit states otherwise or unless granted a waiver per Part 7.1. Operators must also submit the following information to the applicable EPA Regional Office (see Part 7.9 for addresses): New Dischargers and New Sources to Water Quality-Impaired Waters (see Part 1.1.6.2); Exceedance Report for Numeric Effluent Limitations (see Part 7.6); and Additional Reporting (see Part 7.7).

Part 7.3 Reporting Monitoring Data to EPA

The purpose of submitting monitoring data to EPA is to document stormwater quality and identify potential water quality concerns to EPA, states, and stakeholders. Monitoring requirements (i.e., parameters required to be monitored and sample frequency) will be prepopulated on a facility's electronic DMR forms based on the information reported on the NOI form (through the NeT system). Accordingly, operators must report certain changes in monitoring frequency to EPA through the submittal of a "Change NOI" form in NeT. These monitoring changes include:

- All benchmark monitoring requirements have been fulfilled for the permit term;
- All impaired waters monitoring requirements have been fulfilled for the permit term;
- Benchmark and/or impaired monitoring requirements no longer apply because the facility is inactive and unstaffed;
- Benchmark and/or impaired monitoring requirements now apply because the facility has changed from inactive and unstaffed to active and staffed;
- For Sector G2 only: Discharges from waste rock and overburden piles have exceeded benchmark values;
- A numeric effluent limitation guideline has been exceeded;
- A numeric effluent limitation guideline exceedance no longer occurs.

Once monitoring requirements have been completely fulfilled, operators are no longer required to report monitoring results using EPA's electronic DMR reporting tool.

For both indicator monitoring and benchmark monitoring, EPA notes that sampling results must be submitted to EPA no later than 30 days after receiving laboratory results for each monitoring period that samples are required to be collected per Part 4.2.2.2. For any of monitored discharge points that did not have a discharge within the reporting period, operators must report using Net-DMR reporting tool that there was no discharge for that discharge point no later than 30 days after the end of the reporting period.

Part 7.4 Annual Report

In the 2021 MSGP, EPA is retaining the requirement to submit via NeT-MSGP an Annual Report. This provision, along with SWPPP information being made accessible, will provide citizens and other stakeholders with more information about activities and discharges that could affect their receiving waters. The Annual Report must include a summary of the routine site inspection and visual assessment findings, corrective action and AIM responses documentation, and any noncompliance observed. Operators must submit Annual Reports (unless the applicable EPA Regional office has granted a waiver from electronic reporting) by January 30th for each year of permit coverage.

Part 7.5 Exceedance Report for Numeric Effluent Limitations

As described in Part 4.2.3.3, operators must conduct follow-up monitoring any time a monitoring event identifies an exceedance of a numeric effluent limitation. Part 7.5 specifies that the operator must submit an exceedance report to the EPA Regional Office no later than 30 days after receiving laboratory results. Part 7.5 also identifies the specific information the operator must include in this report, which is necessary for EPA to assess the potential impact of this discharge on water quality and the adequacy of the operator's response in addressing the exceedance.

Part 7.6 Additional Standard Recordkeeping and Reporting Requirements

Operators must comply with a number of different reporting requirements in the 2021 MSGP. Specific reporting requirements are included in Part 7; however, additional standard reporting requirements are included in Part 9 applicable to certain states or tribes as well as standard reporting requirements detailed in Appendix B, Subsection 12. Part 7.6 includes a summary of all of the required reports from Appendix B, Subsection 12, and specifies which reports the operator must submit to the applicable EPA Regional Office. Reports required to be submitted include:

- 24-hour reporting (see Appendix B, Subsection 12.F) for any noncompliance which may endanger health or the environment. Any information must be provided orally within 24 hours from the time the operator became aware of the circumstances;
- 5-day follow-up reporting to the 24-hour reporting (see Appendix B, Subsection 12.F) - A written submission must also be provided within five days of the time the operator became aware of the circumstances;
- Reportable quantity spills (see Part 2.1.2.4) – The operator must provide notification, as required under Part 2.1.2.4, as soon as there is knowledge of a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity.
- Planned changes (see Appendix B, Subsection 12.A) – The operator must give notice to EPA promptly, no fewer than 30 days prior to making any planned physical alterations or additions to the permitted facility that qualify the facility as a new source or that could significantly change the nature or significantly increase the quantity of pollutants discharged;
- Anticipated noncompliance (see Appendix B, Subsection 12.B) – The operator must give advance notice to EPA of any planned changes in the permitted facility or activity which they anticipate will result in noncompliance with permit requirements;
- Compliance schedules (see Appendix B, Subsection 12.F) – Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date;
- Other noncompliance (see Appendix B, Subsection 12.G) – The operator must report all instances of noncompliance not reported in your Annual Report (pursuant to Part 7.2), compliance schedule report, or 24-hour report at the time monitoring reports are submitted; and
- Other information (see Appendix B, Subsection 12.H) – The operator must promptly submit facts or information if the operator becomes aware that they failed to submit relevant facts in the NOI, or that they submitted incorrect information in the NOI or in any report.

Part 7.7 Record Retention Requirements

This Part requires operators to maintain certain records to help them assess performance of stormwater control measures and as a way to document compliance with permit conditions. These requirements are consistent with federal regulations at 40 CFR 122.41(j), but have been tailored to more closely reflect requirements of the MSGP. Part 7.7 describes recordkeeping requirements associated with activities covered under the permit. These include the original SWPPP and any modifications, to provide an historical record of the SWPPP and its evolution, additional documentation, all reports and certifications required

by the permit, monitoring data, and records of all data used to complete the NOI. Operators must retain copies of these documents for a period of at least three years from the date that the operator's coverage under the permit expires or is terminated. The recordkeeping requirements in Appendix B, Subsection B.12 include a more general statement of the NPDES standard condition for records retention, but does not impose additional requirements on the operator above what is required in Part 7.7.

Part 7.8 Addresses for Reports

This Part lists the addresses for EPA Regional Offices for reports that must be submitted to EPA.

Part 8 Special Requirements for Discharges Associated with Specific Industrial Activities

Except for the changes to the monitoring requirements described in Part 4 of this Fact Sheet and the changes to individual sectors listed below, the general format and requirements in the sector-specific parts of the permit (Part 8) are similar to the 2015 MSGP.

Sectors G, H and J (Mining Sectors)

EPA clarifies the language for Sector G monitoring requirements for discharges from waste rock and overburden piles at active metal mining facilities (Part 8.G.8.3 and 8.G.8.4). These particular monitoring requirements for Sector G under the 2015 MSGP had a unique, and potentially confusing, monitoring schedule. Under the 2015 MSGP, Part 8.G.8.3 for discharges from waste rock and overburden piles required the operator to conduct benchmark monitoring once in the first year for the parameters listed in Table 8.G-3, and twice annually in all subsequent years of permit coverage for any parameters for which the benchmark had been exceeded. Part 8.G.8.4 required operators to conduct additional analytical monitoring for other pollutants of concern listed in Table 8.G-4. Where a parameter overlapped for both Parts 8.G.8.3 and 8.G.8.4, the operator could use any monitoring results conducted for Part 8.G.8.3 to satisfy the monitoring requirement for that parameter for Part 8.G.8.4. Part 8.G.8.4 specified that the monitoring schedule for this additional analytical monitoring should be quarterly monitoring as per Part 4.2.2.2 (Part 6.2.1.2 in the 2015 MSGP). Given the overlap in parameters the operator is required to monitor for in these two parts and the potential confusion about the monitoring schedules for the same parameter, in the 2021 MSGP, EPA aligns the monitoring schedule for Part 8.G.8.4 to that of Part 8.G.8.3, that is, once in the first year and twice annually in all subsequent years of coverage under this permit for any parameters for which the benchmark threshold has been exceeded. Radium and uranium analytical monitoring is also required in Part 8.G.8.4 but these parameters do not have corresponding benchmark values in Part 8.G.8.3. Without a benchmark value for comparison, the operator would be unable to determine if the parameter has been exceeded; therefore the monitoring schedule of "once in the first year and twice annually in all subsequent years of coverage under this permit for any parameters for which the benchmark has been exceeded" would not make sense for these two parameters. Under the 2021 MSGP, EPA requires the operator to monitor for radium and uranium quarterly for the first four full quarters of permit coverage commencing no earlier than May 30, 2021, after which the operator may discontinue monitoring for these two parameters. EPA also suspends the analytical monitoring currently required for radium and uranium in Part 8.G.8.4 until a relevant national recommended water quality criterion and possible benchmark value can be developed.

Part 9 Permit Conditions Applicable to Specific States, Indian Country or Territories

Section 401 of the CWA (see also 40 CFR §122.44(d)(3) and §124.53(a)) provides that no federal license or permit, including NPDES permits, to conduct any activity that may result in any discharge into navigable waters shall be granted until the State/Tribe in which the discharge originates certifies that the discharge will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of the CWA. The requirements under this Part of the permit provide state, U.S. territory and tribal requirements that these entities certify are necessary in order for the permit to include conditions to achieve their water quality standards.

EPA has two sets of regulations that implement CWA Section 401. The 40 CFR Part 121 regulatory requirements are generally applicable to all 401 certifications. In addition, 40 CFR 124.53 applies specifically to 401 certifications of EPA-issued NPDES permits. In June 2020, EPA updated the 40 CFR Part 121 regulations. See 85 Fed. Reg. 42210 (July 13, 2020) ("2020 Rule"). However, because the certification process for this permit was initiated prior to the effective date of the updated regulations, those updated regulations do not apply to the certifications that were granted for this permit.

EPA regions requested certifications from states and tribes authorized to provide such certifications. These requests were sent to States and Tribes at various times in the spring of 2020. In response, certification decisions were received, also at various times and different months. All certification requests were sent, and all certification decisions were received, before September 11, 2020, which was the effective date of the updated 40 CFR Part 121 regulations. As a result, the certifications, including the conditions incorporated into this permit, were issued pursuant to the Part 121 regulations that were in place prior to the 2020 Rule and 40 CFR §122.44(d)(3) and §124.53.

Appendices**Appendix A Definitions and Acronyms**

Appendix A provides definitions for permit-specific terms and a list of acronyms used throughout the permit.

The following definitions are revised in the permit:

- Green Infrastructure - the range of measures that use plant or soil systems, permeable pavement or other permeable surfaces or substrates, stormwater harvest and reuse, or landscaping to store, infiltrate, or evapotranspire stormwater and reduce flows to sewer systems or to surface waters. See Section 502(27) of the Federal Water Pollution Control Act (33 U.S.C. 1362(27)).
- Primary Industrial Activity – EPA mistakenly omitted 40 CFR 122.26(b)(14)(xi) from the list of activities under this definition in the 2015 MSGP and amends the definition in the permit to match 40 CFR 122.26(b)(14).

The following acronym is added to the permit:

- AIM – Additional Implementation Measures

The following term was edited to match the text used in the permit:

- "Stormwater Team" was changed to "Stormwater Pollution Prevention Team."

Appendix B Standard Permit Conditions

Appendix B includes the standard NPDES permit conditions consistent with 40 CFR 122.41. EPA makes no changes the standard permit conditions or to this appendix.

Appendix C Areas Covered

Appendix C specifies in what areas of the country the permit applies and includes specific corresponding permit numbers. EPA has added areas where EPA is the permitting authority in Indian country within the state of New York and Region 4 to the areas eligible for permit coverage under the MSGP. Previously eligible operators in Region 4 worked with the Region directly to get industrial stormwater permit coverage. For the 2021 MSGP, those operators can seek coverage under EPA's MSGP.

Appendix D Activities Covered

Appendix D describes the types of activities covered by the permit by subsector, SIC or Activity Code, and activity represented. EPA makes no changes to activities covered under the MSGP or to this appendix.

Appendix E Endangered Species Procedures

Appendix E specifies the Part 1.1.4 eligibility criteria related to the Endangered Species Act and protection of endangered and threatened ("listed") species and critical habitat and the procedures operators must follow to meet the criteria. See Fact Sheet discussion for Part 1.1.4 for final changes.

Appendix F Historic Properties Procedures

EPA has not made any changes to the historic preservation requirements or this appendix. Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to take into account the effects of Federal "undertakings" on historic properties that are either listed on, or eligible for listing on, the National Register of Historic Places. The term Federal "undertaking" is defined in the NHPA regulations to include a project, activity, or program of a Federal agency including those carried out by or on behalf of a Federal agency, those carried out with Federal financial assistance, and those requiring a Federal permit, license or approval. See 36 CFR 800.16(y). Historic properties are defined in the NHPA regulations to include prehistoric or historic districts, sites, buildings, structures, or objects that are included in, or are eligible for inclusion in, the National Register of Historic Places. This term includes artifacts, records, and remains that are related to and located within such properties. See 36 CFR 800.16(1).

EPA's issuance of the MSGP is a federal undertaking within the meaning of the NHPA regulations. To address any issues relating to historic properties in connection with issuance of the permit, EPA has included criteria for operators to use to certify that potential impacts of their covered activities on historic properties have been appropriately considered and addressed. Although individual applications for coverage under the general permit do not constitute separate Federal undertakings, the screening criteria and certifications provide an appropriate site-specific means of addressing historic property issues in connection with EPA's issuance of the permit.

Coverage under the 2021 MSGP is available only if operators certify that they meet one of the eligibility criteria following the procedures in Appendix F related to compliance with historic properties protection pursuant to the NHPA. These criteria are used to identify

whether land disturbances associated with the installation or revision of subsurface stormwater control measures would affect properties listed in, or eligible for listing in, the National Register of Historic Properties; and, if so, to determine the measures that will prevent or mitigate adverse effects to the properties.

EPA does not anticipate any effects on historic properties from the pollutants in the stormwater discharges covered by the 2021 MSGP. However, existing and new operators could undertake activities in connection with the 2021 MSGP that might affect historic properties if they install or new or modify stormwater control measures that involve subsurface disturbance. The overwhelming majority of sources covered under the 2021 MSGP will be operators that are seeking renewal of previous permit coverage. If these existing dischargers are not planning to construct new stormwater controls or conveyance systems, they have already addressed NHPA issues. In the 2015 MSGP, they were required to certify that they were either not affecting historic properties or they had obtained written agreement from the applicable SHPO, THPO, or other tribal representative regarding methods of mitigating potential impacts. EPA is not aware of any adverse effects on historic properties under the 2015 MSGP, nor the existence or need for a written agreement. Therefore, to the extent the 2021 MSGP authorizes renewal of prior coverage without relevant changes in operation, it has no potential to affect historic properties.

Where operators install or modify control measures that involve subsurface disturbance, the area of potential effect (APE) for the activities performed to comply with the permit, for historic preservation purposes, is limited to the location and depth of the earth disturbance associated with the installation or modification of the stormwater control measures. Operators need only consider the APE when doing the historic properties screening procedures to determine their eligibility criteria in Appendix F. This is the only scenario where activities authorized or undertaken in connection with the 2021 MSGP may affect historic properties. Since both new and existing dischargers could undertake such activities, all operators are required to follow the historic property screening procedures to document eligibility.

Appendix G Notice of Intent

Parts 1.3.2 and 7.1 require operators to use the electronic NPDES eReporting Tool system, or "Net" system, to prepare and submit NOIs. However, where operators request and receive approval from their EPA Regional Office, they are authorized use the paper NOI form provided in Appendix G on a case-by-case basis.

Operators must provide the following types of information on the NOI form: (1) Permit Information, (2) Facility Operator Information, (3) Facility Information, (4) Discharge Information, (5) SWPPP Information, (6) Endangered Species Protection, (7) Historic Preservation, and (8) Certification Information. The NOI form provides EPA with the information necessary to help determine whether industrial operators have issues that could affect their eligibility to discharge under the permit and enables EPA to better match operators with their respective monitoring requirements and to prioritize oversight activities.

The NOI form has been updated from the 2015 MSGP. New questions on the form include:

- *For new dischargers only:* Do you have a pending enforcement action related to industrial stormwater by EPA, a state, or a citizen (to include both notices of violation (NOVs) by EPA or a state and notices of intent to bring a citizen suit)? (Note that no additional time for discharge authorization is added as contemplated in the proposed permit.)

- Added two questions to determine if PAH indicator monitoring in Part 4.2.1.1.b should apply:
 - Will you have stormwater discharges from paved surfaces that will be sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit?
 - *For operators in Sector A only:* Do you manufacture, use, or store creosote or creosote-treated wood in areas that are exposed to precipitation?
- *For operators in Subsector K1 and G2 only to determine which selenium benchmark should be applied:* Is your receiving water(s) still/standing (lentic) (e.g., a lake or impoundment) or flowing (lotic) (e.g., a river or stream)?
- *For operators in New Mexico only (based on CWA section 401 conditions specific to operators in New Mexico in Part 9 of the permit):*
 - Do you anticipate the discharge of groundwater or spring water from your facility?
 - If answered yes:
 - What is the anticipated flow rate of the groundwater or spring water?
 - Provide information on the potential to encounter impacted groundwater or spring water in the space provided.
 - Using the Mapper tool [link provided] for reference, check if the following groundwater pollutant sources are located nearby the anticipated source of groundwater or spring water such that there is potential for contamination [displays options for project location relative to a source of potential groundwater contamination and the corresponding constituents likely to be required for testing].
 - If any selected:
 - Provide a summary of test data indicating the quality of the groundwater or spring water to be discharged.
 - Use the space provided [for an attachment] to provide test data indicating the quality of the groundwater or spring water to be discharged.
- Added the SIC code field for co-located activities
- Added Options for Answer Selections
 - *For facilities in Sector G only to determine which additional analytic monitoring for discharges from waste rock and overburden piles at active metal mining facilities in Part 8.G.8.3 should apply:* Updated the ore options available to select to include "Ore Not Listed."
 - Added option for user to upload/attach their SWPPP (in addition to the existing options to provide a URL or provide select SWPPP information in the NOI itself)
- Added questions related to the following topics to the NOI form in NeT-MSGP in lieu of providing information to EPA via email communication or in another form to streamline and reduce burden:

- o Endangered species protection criterion determination questions and Criterion C3 information per Part 1.1.4
- o Historic properties criterion determination questions per Part 1.1.5
- o New dischargers to impaired waters eligibility information per Part 1.1.6.2
- o CERCLA-related eligibility information per Part 1.1.7

Appendix H Notice of Termination

Parts 1.4 and 7.1 require operators to use the NPDES eReporting Tool system, or “NeT” system, to prepare and submit their NOT when any of the conditions in Part 1.3.2 have been met. However, where the EPA Regional Office specifically authorizes operators to use a paper NOT form, those operators are required to complete and submit the paper form provided in Appendix H. EPA makes no changes to the NOT requirements or this appendix.

Appendix I Annual Reporting Form

Parts 7.1 and 7.4 require operators to use NeT to prepare and submit an Annual Report. However, where the EPA Regional Office specifically authorizes operators to use a paper Annual Report form, those operators must complete and submit the paper form provided in Appendix I. Information required consists of general information on the facility, summary findings from the routine facility inspections and quarterly visual assessments, and a description of corrective actions and/or AIM responses taken and the status of follow-up repairs, maintenance activities, or new SCMs installations for the previous year. EPA added the requirement to include AIM responses in the Annual Report form for the 2021 MSGP.

Appendix J Calculating Hardness in Receiving Waters for Hardness-Dependent Metals

Appendix J provides guidance to operators for determining their receiving water’s hardness level for hardness-dependent metals benchmark monitoring. EPA no longer uses a hardness range for the copper benchmark thresholds and updated the benchmark threshold based on the 2007 national recommended aquatic life criteria for freshwater, as described further in Part 4.2.2.2. Therefore, the copper values have been removed from this appendix.

Appendix K No Exposure Certification (NEC)

Part 7.1 requires operators to use the NPDES eReporting Tool system, or “NeT” system, to prepare and submit a No Exposure Certification. However, where operators request and receive approval from their applicable EPA Regional Office, they are authorized to use the paper NEC form provided in Appendix K on a case-by-case basis. The NEC form informs EPA that the industrial operator has certified eligibility for the no exposure permitting exemption. EPA finalized the acronym for the No Exposure Certification from NOE to NEC.

Appendix L List of Tier 3, Tier 2, and Tier 2.5 Waters

Appendix L provides a list of Tier 3, Tier 2, and Tier 2.5 waters to assist industrial operators in determining eligibility for coverage under Parts 1.1.6.3, and in complying with any applicable requirements in Part 2.2. This appendix has been updated with the most current information on Tier 3, Tier 2, and Tier 2.5 waters.

Appendix M Discharge Monitoring Report (DMR) Form

Part 7.1 requires operators to use Net-DMR, EPA’s electronic DMR tool to prepare and submit their Discharge Monitoring Reports. However, where an operator requests and

receives a waiver from their EPA Regional Office, the operator is authorized use the paper DMR form included in Appendix M. The DMR form provides EPA with the information necessary to determine compliance with monitoring requirements. EPA updated the form to match the language included in the permit as follows: updated Part 3.d of the form to allow operators to indicate if monitoring was for indicator monitoring, updated Part 3.l of the form to match the abnormal event exception, added Part 3.n (demonstration that discharges of copper do not result in an exceedance of facility-specific criteria) and Part 3.o (demonstration that discharges of aluminum do not result in an exceedance of facility-specific criteria) to match the permit.

Appendix N List of SIC and NAICS Codes

For informational purposes only, Appendix N contains all the 1987 Standard Industrial Classification (SIC) codes that are regulated under stormwater regulations and matches them up with corresponding North American Industrial Classification System (NAICS) codes. NAICS codes have been in use since they replaced the SIC codes in 1997. There is not a one-to-one correspondence between the two systems, so a comprehensive list of regulated codes for both systems was generated. Such a list of codes and how these codes fit into the MSGP's sectors may be of interest to stakeholders. EPA adds the following SIC codes that were mistakenly omitted from previous permits:

- Sector P: 4221-4225 (Farm Product Warehousing and Storage; Refrigerated Warehousing and Storage; and General Warehousing and Storage)
- Sector X: 2761 (Manifold Business Forms)
- Sector AA: 3442 (Metal Doors, Sash, Frames, Molding, and Trim Manufacturing)

Appendix O Summary of Permit Reports and Submittals

Appendix O provides a list of reporting and recordkeeping information that must be generated and, in many cases, submitted to the EPA. There were no changes made from the 2015 MSGP.

Appendix P List of CERCLA Sites

Appendix P provides a list of receiving waters associated with EPA Region 10 CERCLA sites to assist industrial operators in determining eligibility for coverage under Part 1.1.7. These receiving waters have been identified by EPA Region 10 as the ones most likely to experience contamination/recontamination due to toxic pollutants (particularly pollutants for which the site became associated with CERCLA clean ups) being introduced/reintroduced into the receiving water. The eligibility criterion in Part 1.1.7 (Part 1.1.4.10 in the 2015 MSGP) only applies to facilities in EPA Region 10.

Appendix F: 2021 MSGP Notice of Intent


Appendix G: 2021 MSGP Coverage Acknowledgement Letter with the Permit Tracking Number

Appendix H: Quarterly Outfall Inspection Reports

Inspection reports can be found at Environmental Office 439th MSG/CEV or EPA website
<https://cdx.epa.gov/>

Appendix I: Annual EPA Reports

Annual Reports can be found at Environmental Office 439th MSG/CEV or at EPA website <https://cdx.epa.gov/>.

NPDES FORM 6100-28		UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 ANNUAL REPORT FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY UNDER THE NPDES MULTI-SECTOR GENERAL PERMIT	FORM Approved OMB No. 2040-0004
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Permit Information

Report Year: 2020

NPDES ID: MAR052002

Facility Information

Facility Name: WESTOVER AIR RESERVE BASE

Facility Point of Contact

First Name Middle Initial Last Name: John . Moriarty

Phone: 413-557-2434 Ext.:

Email: john.moriarty.1@us.af.mil

Facility Mailing Address

Address Line 1: 975 PATRIOT AVE

Address Line 2: City: CHICOPEE

ZIP/Postal Code: 01022 State: MA

County or Similar Division: Hampden

General Findings

Provide a summary of your past year's routine facility inspection documentation (see Part 3.1.2 of the permit). In addition, if you are an operator of an airport facility (Sector S) that is subject to the airport effluent limitations guidelines, and are complying with the MSGP Part 8.S.8.1 effluent limitation through the use of non-urea-containing deicers, provide a statement certifying that you do not use pavement deicers containing urea (e.g., "Urea was not used at [name of airport] for pavement deicing in the past year and will also not be used in 2015." (Note: Operators of airport facilities that are complying with Part 8.S.8.1 by meeting the numeric effluent limitation for ammonia do not need to include this statement.)

Past year's routine quarterly facility inspections from Dec 2019 to Dec 2020 revealed that all industrial activity points are in compliance; BMPs currently implemented are effective and Westover has no suggested change in BMPs at this time.

Air Force Third-Party Annual Stormwater Inspection was conducted at Westover on 14-15 July 2020 in which there were no incidences of permit non-compliance, and there were no changes in Westover operations to affect the potential for discharge of pollutants to surface waters. I certify that Westover Air Reserve Base complies with the effluent limitation guideline for an airfield pavement deicing by not using airfield pavement deicers that contain urea.

Provide a summary of your past year's quarterly visual assessment documentation (see Part 3.2.2 of the permit).

No issues found during past year's visual assessments. A voluntary third-party inspection was conducted July 2020 with the following results:

Weather conditions during the inspection were mostly sunny, with one rainfall event occurring the second day. Flow was observed from several of the outfalls during the CSCE, the low flow is believed to be caused by groundwater infiltration into the storm sewer system. It is not believed that the flow is associated with a cross-connection or illicit discharge.

Outfall 1, 2, 6, and 7: A slow steady flow was observed emanating from the outfall pipe associated with the OWS and wetlands treatment system at this location. No visible contaminants were observed in the water being discharged to the creek.

Outfall 3 and 9: Slight flow observed emanating from the outfall. No odor, visible contaminants, or discoloration of sediment or rocks was noticed.

Outfall 4: No flow, No Odor, No discoloration.

Outfall 011: Because Outfall 11 receives inflow from Wade Lake, discharging onto Westover ARB from Wade Lake, Outfall 011 is the beginning of Stony Brook and a continuation of the flow that runs

onto Westover ARB from Wade Lake, a steady flow was observed emanating from the outfall. A small

amount of light tan-colored foam was collecting near the outfall. This is likely due to the reddish

sediment near Outfall 005 that is causing the off-colored turbidity. No other odor, visible contaminants,

or discoloration of sediment or rocks was noticed.

For any four-sample (minimum) average benchmark monitoring exceedance, if after reviewing the selection, design, installation, and implementation of your control measures and considering whether any modifications are necessary to meet the effluent limits in the permit, you determine that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice, provide your rationale for why you believe no further reductions are achievable (see Part 6.2.1.2 of the permit). Enter "NA" if not applicable.

NA

Provide a summary of your past year's corrective action documentation (See Part 4.4 of the permit). (Note: If corrective action is not yet completed at the time of submission of this annual report, you must describe the status of any outstanding corrective action(s).) Also describe any incidents of noncompliance in the past year or currently ongoing, or if none, provide a statement that you are in compliance with the permit.

There were no incidences of noncompliance in the past year and we are in compliance with the permit.

Certification Information

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 have no personal knowledge that the information submitted is other than 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.

Certified By: john b. moriarty

Certifier Title:

Certifier Email: john.moriarty.1@us.af.mil

Certified On: 01/20/2021 11:00 AM ET

Appendix J: Annual Air Force Voluntary Third-Party Evaluation Reports

STORM WATER POLLUTION PREVENTION

AIR FORCE VOLUNTARY 3RD PARTY EVALUATION REPORT

WESTOVER AIR RESERVE BASE CHICOPEE, MASSACHUSETTS

Prepared for:

**HEADQUARTERS, AIR FORCE RESERVE COMMAND
HQ AFRC/A4CA
549 Pine Street
Robins Air Force Base, Georgia 31098-1895**



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1. INTRODUCTION

This Storm Water Pollution Prevention Plan (SWPPP) Air Force 3rd Party Evaluation Report documents the findings of the compliance evaluation conducted at Westover Air Reserve Base (ARB) in Chicopee, Massachusetts. The evaluation took place 1-2 March 2021 and was done by Mr. Nick Dobberpuhl and Ms. Melissa Hughes of EA Engineering, Science, and Technology, Inc., PBC (EA), as a subcontractor to Wood Environment & Infrastructure Systems, and Mr. John Cody of Westover ARB 439 CE/CEV. The evaluation and this report satisfy one of the quarterly inspection requirements of the Westover ARB National Pollution Discharge Elimination System (NPDES) Storm Water Multi-Sector General Permit (MSGP) issued by the Environmental Protection Agency (EPA).

The purpose of the evaluation is to determine the effectiveness of the SWPPP in controlling storm water pollution from industrial areas and to ensure that Westover ARB is following its MSGP. This report reviews industrial operations at Westover ARB, discusses best management practices (BMPs) being successfully implemented, suggests additional BMPs to be implemented, and reports any instances of noncompliance with the permit. Each regulatory requirement of the SWPPP was evaluated and determined to be in compliance unless otherwise noted in this report. Some of the BMPs suggested in the previous reports were reevaluated during the 2021 evaluation and changes have been made to make the suggested BMPs more feasible to address the current conditions at Westover ARB.

Weather conditions during the evaluation were partly cloudy, with light rain, heavy snowmelt runoff, and temperatures near 40 degrees Fahrenheit.

2. STORM WATER REGULATION

a. Storm Water Permit

Storm water discharges from Westover ARB are regulated under the MSGP, which was issued on 1 March 2021 and will remain in effect until 28 February 2026. Westover ARB is classified as Sector S - Air Transportation Facility. The MSGP covers storm water discharge from Outfalls 001, 002, 003, 004, 005 006, 007, 009, and 011.

b. MS4 Phase II Review

Westover ARB became a regulated urbanized area based on the 2010 census. As a result, Westover ARB has applied for coverage under the General Permits for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) in Massachusetts by submitting a Notice of Intent to EPA in 2018. The required Storm Water Management Program is currently being implemented and updated.

c. Impaired Waters (303(d) and Total Maximum Daily Load) Review

Previous monitoring for contaminants at impaired Stoney Brook has shown that the contaminants are not present at Westover ARB's outfalls, therefore it is not required to continue annual monitoring under the 2015 MSGP.

Willimansett Brook is the receiving water for Outfall 004 on the west side of Westover ARB. Based on the 2016 Integrated List of Waters, published December 2019, Willimansett Brook is impaired for *Escherichia coli* (*E. coli*) bacteria. The Massachusetts Department of Environmental Protection has not established TMDLs for Willimansett Brook. Monitoring at Outfall 004 is not required under the 2015 MSGP.

d. Monitoring to be Conducted for 2021 MSGP

The 2021 MSGP includes six types of potentially applicable analytical monitoring:

i. Indicator Monitoring (MSGP Section 4.2.1)

Indicator monitoring data provides 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 for indicator monitoring. Indicator monitoring is report-only and is neither benchmark monitoring nor an effluent limitation.

Westover ARB must perform indicator monitoring of stormwater discharges for Sector S. This includes bi-annual monitoring for polycyclic aromatic hydrocarbons (PAHs) during the first and fourth years of permit coverage.

Samples must be analyzed using EPA Method 625.1 or EPA Method 610/Standard Method 6440B, consistent with 40 CFR 136 analytical methods. Analysis must include the 16 individual priority pollutants identified in Appendix A to 40 CFR 423:

- | | |
|-------------------|----------------------------|
| • Naphthalene; | ▪ benzo[a]anthracene; |
| • Acenaphthylene; | ▪ chrysene; |
| • Acenaphthene; | ▪ benzo[b]fluoranthene; |
| ▪ Fluorene; | ▪ benzo[k]fluoranthene; |
| ▪ Phenanthrene; | ▪ benzo[a]pyrene; |
| ▪ Anthracene; | ▪ benzo[g,h,i]perylene; |
| ▪ Fluoranthene; | ▪ indeno[1,2,3-c,d]pyrene; |
| ▪ Pyrene; | ▪ dibenz[a,h]anthracene. |

ii. Benchmark monitoring (MSGP Part 4.2.2);

Benchmark monitoring of stormwater discharges is required for Sector S facilities if they discharge at least 100,000 gallons of pure glycol in glycol-based deicing fluids in a year. Westover ARB has not exceeded this threshold during any year while covered under the MSGP. In the event that future deicing operations at Westover ARB trigger the requirement for benchmark monitoring, the benchmark monitoring requirements for Sector S are summarized in MSGP Part 4.2.2.

iii. Annual effluent limitations guidelines monitoring;

As an existing airport, Westover ARB is required to certify annually during development of the annual report that it does not use pavement deicers containing urea. If urea-based deicers were being used on runway, apron, or taxiway surfaces, Westover ARB would be required to meet the effluent limitation of 14.7 milligrams per liter (mg/l) of ammonia expressed as nitrogen. Westover does NOT use urea. Because Westover ARB is an existing airport instead of a new airport, no effluent limitations for aircraft deicing are applicable.

- iv. State- or tribal-specific monitoring (MSGP Part 4.2.4 and MSGP Part 9.1.2);

No state-specific monitoring is required for Westover ARB per the 2021 MSGP.

- v. Impaired waters monitoring (MSGP Section 4.2.5); and

Stony Brook (Outfall 011) is impaired for non-native aquatic plants, turbidity, and E. coli bacteria. Since no TMDL exists for Stony Brook, Westover ARB is required to monitor for total suspended solids and E. coli annually from Outfall 011 during the first and fourth year of coverage under the 2021 MSGP.

Willimansett Brook (Outfall 004) is impaired for E. coli bacteria. Since no TMDL exists for Willimansett Brook, Westover ARB is required to monitor for E. coli annually from Outfall 004 during the first and fourth year of coverage under the 2021 MSGP.

If a pollutant is detected during monitoring, sampling must occur every subsequent year of coverage under the MSGP. If the water quality standards are exceeded, Westover ARB must initiate corrective actions in accordance with MSGP Part 5.0. Impaired water monitoring results must be compared to the water quality standards for the Connecticut River. According to Table 6 in 314 Code of Massachusetts Regulations (CMR) 4.06, the Connecticut River is classified as a Class B Surface Water. According to 314 CMR 4.05, Class B Inland Surface Waters must meet the following criteria for bacteria and turbidity:

- The geometric mean of all E. coli samples taken within the most recent six months shall not exceed 126 colonies per 100 milliliters (ml) based on a minimum of five samples, and no single sample shall exceed 235 colonies per 100 ml.
- Be free from color and turbidity in concentrations or combinations that are aesthetically objectionable or would impair any use assigned to this class.

- vi. Other monitoring as required by EPA (MSGP Section 4.2.6).

No other monitoring is required for Westover ARB by EPA.

3. CHANGES IN INDUSTRIAL OPERATIONS

The primary industrial activity at Westover ARB has been, and will continue to be, the operation and maintenance of military equipment and C-5 aircraft. Since the 2020 evaluation, there have been no changes made that affect the potential for discharge of pollutants to surface waters. As a result, no changes have been made to the Regulated Industrial Activity Point (RIAP) list.

4. CONSTRUCTION ACTIVITIES

During the Evaluation, there were two active construction projects at Westover ARB, which are described below. Construction storm water general permits have been completed for each project but were not reviewed in detail during the Evaluation. General storm water pollution prevention measures were evaluated and determined to be sufficient for all projects.

- a. Runway Apron Repaving** – This project involves the renovation and reconstruction of the main runway apron that runs from the northeast to the southwest of the base. Starting in the

middle and working outwards, the crew will be removing the top 6 inches of existing asphalt. New aggregate will be placed and then paved over with new asphalt.

b. New Pull Through Hangar— This project is projected to begin within the next year. It will include a new pull through hangar along the east ramp of the base located adjacent to the Military Gas Station. Several changes to the surrounding area are expected to take place.

Another construction project was recently completed at the Small Arms Firing Range. Properly implemented soil stabilization practices were observed to be in place.

5. EVALUATION OF CURRENT BMPs

Westover ARB has been implementing SWPP BMPs since receiving coverage under its original NPDES permit and has continued to implement SWPP BMPs since receiving coverage under the current NPDES Storm Water MSGP. Westover ARB personnel have also implemented many of the previously suggested BMPs recommended for pollution prevention, are aware of preventative maintenance practices, and promptly notify the appropriate personnel when a SWPPP concern needs to be addressed. BMPs currently in place at each RIAP are summarized in the table below.

EA observed several instances where current BMPs were not being properly implemented at industrial facilities or outfalls, which can lead to non-compliance. BMPs that should be newly implemented by facility-specific or base-wide personnel include:

- Improve housekeeping and maintenance inside HAZMAT sheds located at RIAP 3505 USMC Reserves Training Center.
- Frequently check for leaking vehicles along the boundary between pavement and grass at the north parking area of RIAP 3505 USMC Reserves Training Center.
- Restock spill kits at RIAP 7045, 7046 Military Gas Station.
- Drain residual fluids and properly manage debris from wrecked vehicles at RIAP 8005 Fire Training Area.
- Frequently inspect winter maintenance equipment (plows, blowers, etc.) when parked offsite during the off-season. Repair or provide drip pans for any leaking equipment at RIAP 7073 Hangar 5 Roads and Grounds contractor and associated equipment storage or vehicle parking areas.
- Determine whether glycol is bypassing the OWS and wetland treatment system at Outfall 001 during normal winter and spring deicing and runoff (base flow) conditions. Ensure deicing is being conducted using the BMPs described in the SWPPP to prevent contamination of storm water runoff.
- The separator discharge pipe at Outfall 002 is perched due to eroded stream banks around the pipe. A project should be considered to repair the stream bank or replace the pipe to prevent erosion and structural failure of the pipe.
- Recoat the steel potassium acetate tank located on the flightline apron as a corrosion control measures to prevent failure of the tank.

BMPs In Place and BMPs Suggested During March 2021 Evaluation

RIAP Location	General and Site-Specific BMPs In Place	BMPs Effective	EA Suggested BMPs/ Corrective Actions
1301 HAZMAT Pharmacy/ Hazardous Waste Storage	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Spill Prevention and Response • Secondary Containment • Training • Waste, Garbage, and Floatable Debris • Concrete berm at the entrances to the Pharmacy Storage – BOS Contractor room provides containment for this building. • Absorbent material and booms are located inside the building by the loading dock doors. Additionally, a complete spill kit is located in the interior of the building. 	Yes	None
1530 Vehicle Wash Rack	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Preventive Maintenance • Spill Prevention and Response • Secondary Containment • Training • Waste, Garbage, and Floatable Debris • Prohibition of outdoor vehicle washing activities. • No refueling tankers allowed in building. • Interior floor is sloped and has drains which connect to an OWS and discharges to sanitary sewer. 	Yes	None
2450 CE Maintenance Shops	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Preventive Maintenance • Spill Prevention and Response • Secondary Containment • Training • Waste, Garbage, and Floatable Debris • No floor drains in shops. • Prohibition of outdoor vehicle washing. • HAZMAT storage sheds provide a roof and secondary containment for hazardous waste and paints. 	Yes	None

BMPs In Place and BMPs Suggested During March 2021 Evaluation

RIAP Location	General and Site-Specific BMPs In Place	BMPs Effective	EA Suggested BMPs/ Corrective Actions
2500 Hangar Ave. Storage Area	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Spill Prevention and Response • Secondary Containment • Training • Waste, Garbage, and Floatable Debris • Concrete berms are sealed to provide containment for storage of fuel tanks. • Containment area drainage valve is maintained in the closed position. 	Yes	None
2506 Recycle Maintenance Yard	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Spill Prevention and Response • Training • Waste, Garbage, and Floatable Debris • Facility is staffed by a dedicated contract employee during open hours. Facility is locked when closed. • Site personnel review materials during drop-off to verify acceptability of materials. • Mercury lightbulbs are stored in labeled boxes within the HAZMAT shed. • OWS is inspected quarterly and cleaned as needed. • Routinely inspect the area around the roll-off containers compactors for signs of staining or discharge of pollutants. 	Yes	None
3101 Army Reserves Center Vehicle Maintenance Shop	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Preventive Maintenance • Spill Prevention and Response • Training • Waste, Garbage, and Floatable Debris • Floors of maintenance bay sloped inward toward main area. • Spill kits located in parking lots, maintenance room and wash rack. • Spill pallets and drip pans located throughout facility. 	Yes	None

BMPs In Place and BMPs Suggested During March 2021 Evaluation

RIAP Location	General and Site-Specific BMPs In Place	BMPs Effective	EA Suggested BMPs/ Corrective Actions
3405 Salt Storage Yard	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Spill Prevention and Response • Training • Waste, Garbage, and Floatable Debris • Minimize Exposure • Any salt that is spilled on the ground during loading/unloading is cleaned up immediately. • Train personnel working in the salt storage area on the good housekeeping practices required for this area. • Keep metal equipment indoors if possible. When metal equipment or materials become too rusty to use, properly dispose or turn in as scrap metal. • The dome prevents precipitation from contacting salt pile. 	Yes	None
3505 USMC Reserves Training Center	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Preventive Maintenance • Spill Prevention and Response • Training • Waste, Garbage, and Floatable Debris • Spill kit inside maintenance bays and outside in equipment parking area. • Drip pans used only on leaking vehicles. Drip pan inspected and maintained if water or chemicals are caught in the drip pan. • Vehicle wash rack contains wash water in a sloped concrete pad that drains to an OWS and to sanitary sewer. • Refueling truck parking has concrete berms and is sloped to contain spills. Floor drains within the berms are equipped with valves that are maintained closed. The valves can allow stormwater to be discharged or divert fluid to an OWS. 	Yes	<p>Improve cleanup inside and maintenance of outdoor HAZMAT shed.</p> <p>Monitor leaking vehicles along the boundary line of grass and pavement on the north side parking area.</p>
5375 Base Supply	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Spill Prevention and Response • Secondary Containment • Training • Waste, Garbage, and Floatable Debris • Small spill kit and absorbent material inside building. • Spill pallets are used to store containers/drums of hazardous materials while kept at Base Supply. • Vehicles in the long-term DMO parking lot are checked frequently for leaks. Stains and leaks from vehicles are promptly cleaned up. 	Yes	None

BMPs In Place and BMPs Suggested During March 2021 Evaluation

RIAP Location	General and Site-Specific BMPs In Place	BMPs Effective	EA Suggested BMPs/ Corrective Actions
5425 Exchange Gas Station	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Preventive Maintenance • Spill Prevention and Response • Training • Waste, Garbage, and Floatable Debris • Minimize Exposure • Roof over fuel pumps. • Small ridges on concrete fueling pad contain small fueling spills and reduce storm water run-on. • Fueling area is on a local high point which prevents run-on. • Small OWS collects runoff from fuel receiving area. • USTs have overfill alarms and automatic shutoff floats in the fill ports. • Two emergency shut-off buttons for gas pumps are installed on the outside and inside of the building. • Large spill kit located by the fuel pumps. 	Yes	None
7000/DC Hanger Fuel Systems Maintenance, Aircraft Inspection, ISO Dock	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Spill Prevention and Response • Training • Waste, Garbage, and Floatable Debris • Drip pans and absorbent pads are placed under aircraft engines during maintenance. • Building floor drains are connected to two OWSs and the sanitary sewer. • HAZMAT storage shed provides cover and secondary containment for various hazardous materials. • Spill kits located in the hangar and in the HAZMAT storage shed. • Browsers parked within plastic spill dikes 	Yes	None

BMPs In Place and BMPs Suggested During March 2021 Evaluation

RIAP Location	General and Site-Specific BMPs In Place	BMPs Effective	EA Suggested BMPs/ Corrective Actions
7025, 7026, 7027 Bulk Fuels Storage Area	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Preventive Maintenance • Spill Prevention and Response • Secondary Containment • Training • Waste, Garbage, and Floatable Debris • Prohibition of Industrial Activities Outside of Designated Areas • The concrete dike liner is inspected and replaced when it becomes deteriorated. • Large spill kit near fuel loading area. • Fuels system emergency shutdown switch in fuels loading area. • Sweep out the interior of the dikes as necessary to prevent sediment from entering the OWS and storm sewer. • Drainage logs maintained in pump room. • Fuel unloading area has a roof and bollards protecting pumps. • Signs show valve operating instructions for diverting flow to the OWS. 	Yes	None
7040/Pull-Through Hangar Corrosion Control, Aircraft Wash Rack	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Spill Prevention and Response • Secondary Containment • Training • Waste, Garbage, and Floatable Debris • Prohibition of Industrial Activities Outside of Designated Areas • Spill kit is located next to the propylene glycol fill stand. • Two spill kits located inside the building. • All aircraft washing is conducted indoors. • Check deicing trucks (especially during offseasons) for any active leaking, use drip pans, and clean up spills below vehicles. 	Yes	None

BMPs In Place and BMPs Suggested During March 2021 Evaluation

RIAP Location	General and Site-Specific BMPs In Place	BMPs Effective	EA Suggested BMPs/ Corrective Actions
7045, 7046 Military Gas Station	<ul style="list-style-type: none"> • Good Housekeeping • Spill Prevention and Response • Training • Waste, Garbage, and Floatable Debris • Roof over fueling areas. • Small ridges on concrete fueling pads contain small fuel spills and prevent runoff. • Fueling area is on a local high point that prevents storm water run-on. • Runoff flows into a trench drain and through an OWS, which is inspected as needed. Red post indicator valve is used to control flow from the trench drains. It is closed when a truck is receiving fuel from the loading header. • Large spill kit is located at Bldg 7045 with spill booms. • Small "customer" spill kit is present at Bldg 7046. • Bollards on either end of both fueling areas protect fuel pumps from damage by vehicles. • Emergency stop for fuel pumps at each island and on outside wall of Hangar 9. 	Yes	Restock spill kits with necessary cleanup supplies.
7071/Hangar 9 AGE, AMXS	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Preventive Maintenance • Spill Prevention and Response • Secondary Containment • Training • Waste, Garbage, and Floatable Debris • Minimize Exposure • AGE equipment are stored in the hangar unless in use in the Ready Line. • Washing occurs at an approved wash rack inside the hangar; drains to OWS then to sanitary sewer. • Posted spill warning signs in hangar. • Spill kits throughout hangar. • Flammables lockers and HAZMAT storage sheds provide cover and secondary containment for hazardous materials. 	Yes	None

BMPs In Place and BMPs Suggested During March 2021 Evaluation

RIAP Location	General and Site-Specific BMPs In Place	BMPs Effective	EA Suggested BMPs/ Corrective Actions
7072/Hangar 7 NDI, Structural Maintenance, Metals Technology	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Preventive Maintenance • Spill Prevention and Response • Secondary Containment • Training • Waste, Garbage, and Floatable Debris • Spill kits inside all shop areas. • Flammables lockers and HAZMAT storage sheds provide cover and secondary containment for hazardous materials. • Spill pallets provided inside hangar for hazardous material storage. • Waste fluids from NDI are pre-treated and sent to sanitary sewer. Drums are placed on spill pallets. 	Yes	None
7073/Hangar 5 Roads and Grounds Shop, Vehicle Maintenance Shop	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Preventive Maintenance • Spill Prevention and Response • Secondary Containment • Training • Waste, Garbage, and Floatable Debris • Minimize Exposure • A concrete berm serves as containment at the hazardous waste accumulation point. • Salt trucks stored indoors. • Floor drains on the southwest side of the shop drain to an OWS then to the sanitary sewer. • Spill kit located inside building. • Monitor vehicles and equipment parked on flightline for leaks and clean up old leaks. • Drip pans used only on leaking vehicles. Drip pan inspected and maintained if water or chemicals are caught in the drip pan. • 400-gallon used oil tank is double-walled. 	Yes	Check for and clean any leaking vehicles on flightline apron.

BMPs In Place and BMPs Suggested During March 2021 Evaluation

RIAP Location	General and Site-Specific BMPs In Place	BMPs Effective	EA Suggested BMPs/ Corrective Actions
7075/Hangar 3 Hangar 3	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Spill Prevention and Response • Secondary Containment • Training • Waste, Garbage, and Floatable Debris • Minimize Exposure • Glycol and deodorant totes are stored on a containment pallet. • Vehicles stored inside hangar during winter. • Absorbent pads and dry material available for spill cleanup. • Flammables lockers provide cover and secondary containment for hazardous materials. 	Yes	None
7084 Fire Department	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Preventive Maintenance • Spill Prevention and Response • Training • Waste, Garbage, and Floatable Debris • Prohibition of Industrial Activities Outside of Designated Areas • Washing occurs indoors and floor drains discharge to an OWS and the sanitary sewer. • Spill kits available on all vehicles. 	Yes	None

BMPs In Place and BMPs Suggested During March 2021 Evaluation

RIAP Location	General and Site-Specific BMPs In Place	BMPs Effective	EA Suggested BMPs/ Corrective Actions
7705, 7713, 7714 Bulk Fueling Stands, Hydrant System, Pump House, Bulk Fuel Tanks, Refueler Truck Parking	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Preventive Maintenance • Spill Prevention and Response • Secondary Containment • Training • Waste, Garbage, and Floatable Debris • Prohibition of Industrial Activities Outside of Designated Areas • Bulk fuel storage tank located in concrete sized containment dikes. Tanks have high level alarms and automatic shutoff. Containment area drain valves are manually operated and kept closed until inspection of accumulated water. • Refueler tankers are parked in a concrete containment area with trench drains that discharge to concrete vault for spill capture. Containment area drain valves are manually operated and kept closed until inspection of accumulated water. • Diverter valve on storm drain at fuel fill stands is activated before fueling occurs; diverts possible spills to 8,000-gal. concrete vault. • Hydrostatic testing conducted daily on hydrant loop piping. • Spill kits located throughout the area. • Pump switches are shut off when not in use. 	Yes	None
7711 Refueler Truck Maintenance Facility	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Preventive Maintenance • Spill Prevention and Response • Secondary Containment • Training • Waste, Garbage, and Floatable Debris • Prohibition of Industrial Activities Outside of Designated Areas • Containment tank serves the trench drains and floor drains in the maintenance garage. • Drip pans used under refueler trucks during maintenance operations. • Permanent concrete dike around drums/antifreeze/oil dispensing units. • Use of dry clean-up methods for fuel spills. • Spill kit located in building. • Flammables locker provides cover and secondary containment for hazardous materials. 	Yes	None

BMPs In Place and BMPs Suggested During March 2021 Evaluation

RIAP Location	General and Site-Specific BMPs In Place	BMPs Effective	EA Suggested BMPs/ Corrective Actions
8005 Fire Training Area	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Preventive Maintenance • Spill Prevention and Response • Secondary Containment • Training • Waste, Garbage, and Floatable Debris • Minimize Exposure • Only water (no foam) is used during fire training exercises. • If necessary, the retention pond is discharged to the sanitary sewer. • Mock and wrecked vehicles used in training are drained of fluids before being used for training at the facility. 	Yes	Manage fluids and debris from wrecked vehicles.
Flightline Apron	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Spill Prevention and Response • Training • Waste, Garbage, and Floatable Debris • Minimize Dust and Off-Site Material Tracking • Minimize Exposure • The Fire Department is located on the flightline and can provide immediate response in the event of a spill. • Aircraft glycol usage is monitored, logged, and submitted to the Environmental Office after each deicing event. • When possible, deicing activities are conducted at parking spaces E-1 through E-8 and E-12 through -14 on the Echo Ramp because these locations drain to Outfall 001, served by the wetlands treatment system. • When possible, aircraft scheduled to fly the next day are stored in the hangar. • Moving parts and surfaces are deiced first. • Hot air is used for frost, light snow, and later flight times 	Yes	Recoat potassium acetate tank because of large amounts of rusting and potential for leaking.

BMPs In Place and BMPs Suggested During March 2021 Evaluation

RIAP Location	General and Site-Specific BMPs In Place	BMPs Effective	EA Suggested BMPs/ Corrective Actions
Transient Aircraft Apron AKA: North Ramp	<ul style="list-style-type: none"> • Good Housekeeping • Inspections • Spill Prevention and Response • Training • Waste, Garbage, and Floatable Debris • Minimize Dust and Off-Site Material Tracking • Minimize Exposure • Concrete apron is graded to prevent storm water run-off. • The Fire Department is located on the flight line and can provide immediate HAZMAT response in the event of a fuel release. • If possible, flights are delayed to avoid deicing activities. • An Aircraft Glycol Monitoring Log is completed and submitted to the Environmental Office after each deicing event. • Moving parts and surfaces are deiced first. • Hot air is used for frost, light snow, and later flight times. 	Yes	None
Soil Stockpile	<ul style="list-style-type: none"> • Erosion and Sediment Controls • Good Housekeeping • Inspections • Spill Prevention and Response • Training • Waste, Garbage, and Floatable Debris • Minimize Dust and Off-Site Material Tracking • Minimize Exposure • Create and enforce guidelines that prohibit what materials can be brought here. • Grassed buffer area which storm water must flow across before entering Stony Brook. • Earthen berm along the west side to limit storm water runoff directly into Stony Brook and allow for settling of entrained sediments. • Contractors are to clean up tracked sediment from activities at the end of each day. • Frequent monitoring of uncontained soil stockpiles for erosion. 	Yes	None

6. OUTFALL INSPECTIONS

Visual inspections of storm water outfalls were conducted in accordance with the MSGP and the current SWPPP for Westover ARB. Outfall observations are provided below, and photographs taken during the inspection follow this section. Flow observed from the outfalls is believed to be from prior precipitation events, snow melt, and/or groundwater infiltration into the storm sewer system. No indications of cross-connections or illicit discharges were observed.

Outfall 001

During the inspection, a moderate flow was observed emanating from both the high flow bypass pipe and the OWS and wetlands treatment system. No visible contaminants were observed in the water being discharged to the creek. A slight odor of rotten vegetation was observed near the high flow bypass pipe, indicating the possible presence of deicing fluid. The OWS and wetlands treatment system may not have a high enough flow capacity to capture the deicing fluid during normal winter or spring runoff (base flow) conditions.

Outfall 002

A slow, steady flow was observed emanating from the outfall pipe associated with the OWS. No visible contaminants were observed in the water being discharged to the creek. The OWS effluent discharge pipe was perched above the eroded stream bank, which should be monitored and addressed before the pipe fails and erosion worsens.

Outfall 003

A clear path to the outfall down a steep hill was recently cleared, making the outfall more accessible. It is important to maintain the path to the outfall so that inspections of the outfall and receiving water can be easily completed. A slow flow was observed emanating from the outfall pipe. The corrugated metal discharge pipe was in fair condition with some joints disconnected by about one to two inches and a severely corroded flowline, but it was not significantly worse than last observed in February 2019.

Outfall 004

A culvert discharge headwall upstream of Outfall 004 (southwest of Base Exchange gas station) has severe erosion below the apron, which could lead to failure of the headwall, erosion of the stream banks, or failure of the adjacent retaining wall. The apron should be repaired with new bedding and reinforced concrete, and the adjacent structures should be monitored frequently for further degradation or potential failure. Several inches of stagnant water were present near Outfall 004 due to debris buildup on the security grate covering the culvert. No odor, visible contaminants, or discoloration of sediment or rocks was noticed.

Outfall 005

A moderate flow was emanating from the outfall. No odor or discoloration of sediment or rocks was noticed. A large amount of orange sediment is visible upstream and to the west of Outfall 005, which may be due to naturally iron-rich soils within the upstream area. Because Outfall 005 discharges within Westover ARB and ultimately through Outfall 011, Outfall 005 is not a regulated outfall.

Outfall 006

Low flow was observed emanating from the outfall pipe. There was bright orange/reddish sediment

around this outfall. Orange soil is visible in the sediment upstream and to the west of the outfall due to naturally iron-rich soils within the upstream watershed.

Outfall 007

Low flow was observed emanating from the outfall pipe. No odor or visible contaminants were observed.

Outfall 009

A very slight flow was observed emanating from the outfall. No odor or visible contaminants. There was a small amount of bright orange/reddish sediment in the channel downstream from the outfall due to naturally iron-rich soils within the upstream watershed.

Outfall 011

Because Outfall 011 is the beginning of Stony Brook and a continuation of the flow that runs onto Westover ARB from Wade Lake, a steady flow was observed emanating from the outfall. A small amount of light tan-colored foam was collecting near the outfall. This is likely due to the orange sediment near Outfall 005 that is causing the off-colored turbidity. No other odor, visible contaminants, or discoloration of sediment or rocks was noticed.



Photograph 1 - Outfall 001 oil/water separator



Photograph 2 - Outfall 001



Photograph 3 - Outfall 002 oil/water separator



Photograph 4 - Outfall 002 oil/water separator discharge pipe



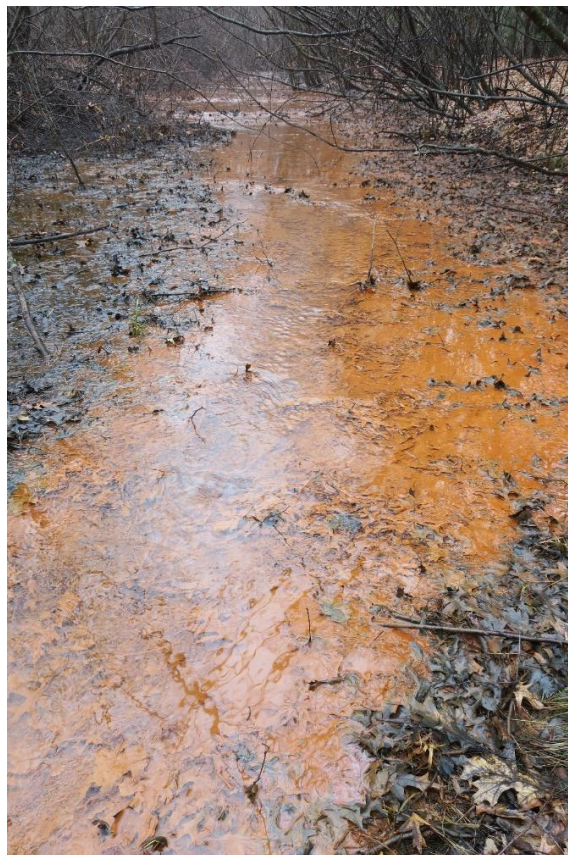
Photograph 5 - Outfall 003



Photograph 6 - Outfall 003 discharge pipe showing disconnected joints and corroded flowline



Photograph 7 - Outfall 004, debris buildup on security grate covering culvert



Photograph 9 - Orange sediment near Outfall 005



Photograph 10 - Outfall 007



Photograph 11 - Outfall 006



Photograph 12 - Outfall 006



Photograph 13 - Outfall 011



Photograph 14 – Upstream from Outfall 011

7. INCIDENTS OF NONCOMPLIANCE

The MSGP prohibits certain discharges, specifies monitoring and corrective action requirements for discharges to impaired waters, and requires implementation of the SWPPP. As a result, specific deviations from the permit requirements or areas identified in the SWPPP that were not being implemented are considered to be incidents of noncompliance for the purposes of this Evaluation. There were no instances of noncompliance identified during the 2021 Evaluation.

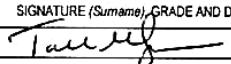
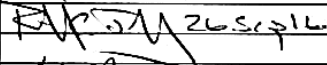
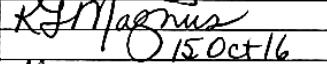
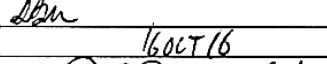
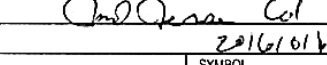
8. CERTIFICATION

The undersigned hereby certifies that this report was completed under the supervision of the parties who participated in the evaluation and that the evaluation was completed as described in this report.

Signature:  Date: 5/10/2021

Nicholas Dobberpuhl
EA Engineering, Science, and Technology, Inc., PBC
405 State Highway 121 Bypass
Suite C-100
Lewisville, TX 75067
972-315-3922

Appendix K: Commander Designation Letter

STAFF SUMMARY SHEET							
	TO	ACTION	SIGNATURE (Surname), GRADE AND DATE		TO	ACTION	SIGNATURE (Surname), GRADE AND DATE
1	439 AW/JA	Review	 TODD M. SPARKS	6			
2	439 MSG/CCE	Coord	 R. J. MAGNUS	7			
3	439 MSG/CC	Coord	 R. J. MAGNUS	8			
4	439 AW/CCE	Coord	 R. J. MAGNUS	9			
5	439 AW/CC	Sign	 R. J. MAGNUS	10			

SURNAME OF ACTION OFFICER AND GRADE	SYMBOL	PHONE	TYPIST'S INITIALS	SUSPENSE DATE
Champanine Saviengvong, GS-11	MSG/CEV	Ext. 3951	C.S.	20161010

SUBJECT	DATE
Update Delegation Letters	20160922

SUMMARY

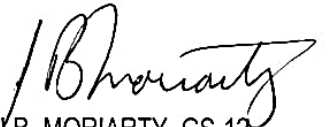
1. **PURPOSE:** To provide authority to MSG/CC and CEV Flight Chief to sign reports pursuant to our EPA stormwater discharge permits and City of Chicopee wastewater discharge permit.

2. **BACKGROUND:** Westover's EPA National Pollutant Discharge Elimination System (NPDES) Permits stipulate that delegated individuals or positions have "overall responsibility for environmental matters for the company". Westover's Chicopee Sanitary Discharge Permit requires that delegates have responsibility for the overall operation of the "regulated facility or activity, such as the position of plant manager or superintendent". Currently, the Base Civil Engineer is the only position delegated to sign submittals to the regulation agency of the afore-mentioned Permits. Propose updates to the following three documents to identify 439 MSG/CC and/or CEV Flight Chief as approved delegates:

MSG concurs w/ recommendation.

Authority	Westover Permit Name	Delegation Document Name	Document types associated with Delegation	Proposed Delegates	TAB
EPA	NPDES Multi-Sector Industrial Permit	Subscriber Agreement for EPA on-line portal for sampling data	Sampling data	CEV Flight Chief	TAB 1
EPA	NPDES Multi-Sector General and Construction General Permits	Delegation Ltr	Plans, reports, and any other compliance documentation	439 MSG/CC, CEV Flight Chief	TAB 2
City of Chicopee	Local Sanitary Discharge Permit	Signatory Authority Form	Plans, reports, and any other compliance documentation	439 MSG/CC, CEV Flight Chief	TAB 3

3. **RECOMMENDATION:** 439 AW/CC indicate approval by wet signature on the staff summary sheet and delegation documents at Tabs 1, 2, and 3.



JOHN B. MORIARTY, GS-12
Chief, Environmental Engineering Flight

6 Tabs

1. Proposed EPA Subscriber Agreement

2. Proposed EPA Delegation Ltr

3. Proposed Chicopee Form

4. Former EPA Subscriber Agreement

5. Former EPA Delegation Ltr

6. Former Chicopee Form



DEPARTMENT OF THE AIR FORCE


AIR FORCE RESERVE COMMAND

MEMORANDUM FOR 439 MSG/CC

FROM: 439 AW/CC

SUBJECT: Designation of Authorized Representative for EPA NPDES Program

1. I hereby designate the positions of MSG Commander, Base Civil Engineer (BCE), and Environmental Engineering Flight Chief as the duly authorized representatives of the Storm Water Program for the purpose of signing reports generated under the EPA National Pollutant Discharge Elimination System (NPDES) Program Construction General Permit and Multi-Sector General Permit.
2. The positions of MSG Commander, Base Civil Engineer (BCE), and Environmental Engineering Flight Chief meet the definition of authorized representative in Appendix I Subsection I.11.2 of the Construction General Permit and Appendix B Subsection 11.B of the Multi-Sector General Permit, whereby they have overall responsibility for environmental matters for the company. The afore-mentioned positions may sign reports and compliance documentation generated under the Construction General Permit and Multi-Sector General Permit for the 439 AW.

X 

JAY D. JENSEN, Colonel, USAF
Commander

"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 contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained 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."

Appendix L: Storm Water Outfall Visual Assessment Form

Storm Water Visual Outfall Assessment Form

Name of Facility Westover Air Reserve Base	NPDES ID
--	-----------------

Sample Location (Outfall ID)

Identify Substantially Identical Discharge Points

Name/Title of Sample Collector	Signature
---------------------------------------	------------------

Name/Title of Sample Examiner	Signature
--------------------------------------	------------------

Date & Time Discharge Began

Date & Time Sample Collected

Date & Time Sample Examined

Nature of discharge: <input type="checkbox"/> Rainfall <input type="checkbox"/> Snowmelt	If rainfall, number of inches
--	--------------------------------------

Previous storm ended at least 72 hours before start of this storm?
☐ Yes ☐ No

If previous answer was no, and less than 72-hours is representative for local storm events during the sampling period, explain.
The 72-hour interval can be waived when the previous storm did not yield a measurable discharge or if you are able to document that less than a 72-hour interval is representative of local storm events during the sampling period.

Sampling not performed due to adverse conditions
☐ No ☐ Yes, describe:

Sampling not performed due to no measurable storm event occurring that resulted in a discharge during the monitoring quarter
☐ No ☐ Yes, describe:

If sample was not collected during the first 30 minutes of discharge, explain why.

If sample is a substitute sample, identify the quarter/year the sample was initially scheduled for.

If sample is a substitute sample for seasons when runoff rarely occurs, identify the quarter/year the sample was initially scheduled for.
Facility must be located in an area where limited rainfall occurs during many parts of the year or in an area where freezing conditions exist that prevent discharges from occurring for extended periods.

Pollutants observed

Color	<input type="checkbox"/> None	<input type="checkbox"/> Other	Describe
Odor	<input type="checkbox"/> None	<input type="checkbox"/> Other	Describe (musty, sewage, sulfur, sour, petroleum/gas, solvent)
Clarity	<input type="checkbox"/> Clear	<input type="checkbox"/> Other	Describe (slightly cloudy, cloudy, opaque)
Floating Solids	<input type="checkbox"/> No	<input type="checkbox"/> Yes	Describe
Settled Solids allow sample to sit for at least 30 minutes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	Describe
Suspended Solids	<input type="checkbox"/> No	<input type="checkbox"/> Yes	Describe
Foam gently shake sample	<input type="checkbox"/> No	<input type="checkbox"/> Yes	Describe
Oil Sheen	<input type="checkbox"/> None	<input type="checkbox"/> Other	Describe (flecks, globs, sheen slick)
Other Obvious Indicators of Stormwater Pollution	<input type="checkbox"/> No	<input type="checkbox"/> Yes	Describe

Identify probable sources of any observed stormwater contamination. Also, include any additional comments, descriptions of pictures taken, and any corrective actions necessary below (attach additional sheets as necessary).

Certification Statement (Refer to MSGP Appendix B, Part B.11 for 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 gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained 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.

Name	Title	
Signature		Date

Appendix M: Industrial Facility Routine Stormwater Inspection Report

Industrial Facility Routine Stormwater Inspection Report

General Information	
Facility Name	Westover Air Reserve Base
NPDES ID	
Inspection Date and Start/End Time	
Inspector Name(s)	
Inspector Title(s)	
Inspector Contact Information	
Inspector Qualifications	

Weather Information

Temperature:

☐ clear ☐ cloudy ☐ rain ☐ sleet ☐ fog ☐ snow ☐ high winds ☐ other, describe:

Storm Water Discharge – Describe any storm water discharges occurring at the time of inspection.

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 contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained 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: _____ **Date:** _____

Observations

Outfalls - Describe evidence of or potential for pollutants entering the stormwater drainage system. Describe observations regarding the physical condition of and around outfalls and evidence of pollutants in discharges at the outfalls. Identify if any corrective action is needed.

Pollutant Discharge - Describe any previously unidentified pollutant discharges.

Non-Compliance - Describe any incidents of non-compliance observed and not described above.

Additional Control Measures - Describe any additional control measures needed to comply with the requirements of the MSGP:

Notes - Use this space for any additional notes or observations from the inspection:

RIAP Inspections

Use the most recent RIAP Forms from Appendix D of the SWPPP as guidance

RIAP	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Maintenance or Corrective Action Needed and Notes
1301 - HAZMAT Pharmacy/ Hazardous Waste Storage	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
1530 - Vehicle Wash Rack	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2450 - CE Maintenance Shops	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2500 - Hangar Ave. Storage Area	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2506 - Recycle Yard Maintenance	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
3101, 3506, 3507 - Army Reserves Center Vehicle Maintenance Shop	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
3405 - Salt Storage Yard	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
3505 - USMC Reserves Training Center	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	

RIAP	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Maintenance or Corrective Action Needed and Notes
5375 - Base Supply	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
5425 - Exchange Gas Station	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
7000/DC Hanger - Fuel Systems Maintenance, Aircraft Inspection, ISO Dock	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
7025, 7026, 7027 - Bulk Fuels Storage Area	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
7040/Pull-Through Hangar - Corrosion Control, Aircraft Wash Rack	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
7045, 7046 - Military Gas Station	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
7071/Hangar 9 - AGE, AMXS	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
7072/Hangar 7 - NDI, Structural Maintenance, Metals Technology	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
7073/Hangar 5 - Roads and Grounds Shop, Vehicle Maintenance Shop	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	

RIAP	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Maintenance or Corrective Action Needed and Notes
7075/Hangar 3 - Hangar 3	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
7084 - Fire Department	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
7701, 7705, 7713, 7714 - Bulk Fueling Stands, Hydrant System, Pump House, Bulk Fuel Tanks, Refueler Truck Parking	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
7711 - Refueler Truck Maintenance Facility	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
8005 - Fire Training Area	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Flightline Apron	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Transient Aircraft Apron (North Ramp)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Soil Stockpile	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Appendix N: Documentation of Corrective Action

Appendix O: Documentation of Benchmark Exceedances and Response Actions

Appendix P: Documentation of Maintenance and Repairs of Control Measures

Appendix Q: Documentation to Support Determination That Pollutants of Concern Are Not Expected to be Present Above Natural Background Levels if Water is Discharged Directly to Impaired Waters When Required by the Permitting Agency

Appendix R: Documentation of Deviations from the Monitoring or Assessments Schedule and the Reason for the Deviation

Appendix S: Endangered Species Documentation/ USFWS Consultations

Appendix T: Monitoring Lab Results

Laboratory data can be found at Environmental Office 439th MSG/CEV or EPA website
<https://cdx.epa.gov/>