

Storm Water Pollution Prevention Plan

Granite State Minerals

**227 Market Street
Portsmouth, New Hampshire
(603) 436-8505 or (800) 582-7907 (toll free)**



Permit NHR050000 / SWPPP May 26, 2021

SWPPP Contacts: Justin Sunderland

Office Phone: 603-436-8505

Greg Coppola 718.594.5953 (mobile) Joseph McNamee 978-458-6420

National Spill Response Number: 1-800-424-8802

United States Coast Guard, New Castle, NH: 1-603-436-4415.

NH Dept. Env. Services Spill Response: 1-603-271-3899 (Business Hours)

NH Weekend & Evening Spill Response: 1-603-223-4381 or State Police

Portsmouth Fire Department: 1-603-427-1515 (or 911)

TABLE OF CONTENTS

GRANITE STATE MINERALS, INC. SWPPP May 2021

Section	Content	Page
SECTION 1	FACILITY DESCRIPTION AND CONTACT INFORMATION	1
1.1	Facility Information	1
1.1.1	Facility Information Diagrams (cross references)	2
1.2	Contact Information / Responsible Parties	3
1.3	Stormwater Pollution Prevention Team	4
1.4	Site Description	5
1.4.1	Cargo Handling Activities	6
1.4.2	Associated Support Activities	9
1.5	General Location Map	10
1.5.1	Site Map	11
SECTION 2	POTENTIAL POLLUTANT SOURCES	12
2.1	Potential Pollutants Associated with Industrial Activity	12
2.2	Spills and Leaks	14
2.3	Unauthorized Non-Stormwater Discharges	15
2.4	Salt Storage	15
2.5	Sampling Data Summary	17
SECTION 3	STORMWATER CONTROL MEASURES	20
3.1	Non-Numeric Technology-Based Effluent Limits	21
3.1.1	Minimize Exposure	21
3.1.2	Good Housekeeping	22
3.1.3	Maintenance	23
3.1.4	Spill Prevention and Response	24
	Spill Response Numbers Listed Here & on Cover	26
3.1.5	Erosion and Sediment Control	26

Section	Content	Page
3.1.6	Management of Runoff	26
3.1.7	Salt Storage Piles	27
3.1.8	Employee Training	29
3.1.9	Non-Stormwater Discharges	30
3.1.10	Dust Generation & Suppression	31
3.1.11	Waste, Garbage, etc.	31
3.2	Numeric Effluent Limits	31
3.3	Sector-Specific Non-Numeric Effluent Limits	31
3.4	State-Specific Requirements	32
3.5	Water Quality Effluent Limits and Standards	33
SECTION 4	SCHEDULES AND PROCEDURES	33
4.1	Routine Facility Inspections	33
4.2	Quarterly Visual Inspections	35
4.3	Monitoring	36
4.3.1	Water Sampling Procedures	36
4.3.2	Indicator Monitoring	37
4.3.3	Quarterly Benchmark Monitoring	38
4.3.3.1	Additional Implementation Measures	39
4.3.4	Numeric Effluent Limitations Monitoring	43
4.3.5	Annual Impaired Water Monitoring	43
4.3.6	Reporting Results	43
4.4	Spill Prevention and Response Procedures	43
4.5	Corrective Action Procedures	44
4.5.1	Timing for Corrective Actions	44
SECTION 5	ANNUAL REPORTS	45
SECTION 6	ELIGIBILITY UNDER OTHER FEDERAL LAWS	45
6.1	Endangered and Threatened Species and Critical Habitat	45
6.2	Historic Properties	48

Section	Content	Page
FIGURES		
1	General Location of Granite State Minerals on aerial photo of Portsmouth Harbor	5
2	General Arrangement of Marine Terminal Components Based on Google Aerial	7
3	Refueling Truck and Cranes	10
4	Site Map Marked with Key Features	11
5	Photograph of salt pile covered with tarp	16
6	Excerpt from NH DES Impaired Water Diagram Portsmouth Harbor	20
7	Indoor Location for Vehicles, Equipment & Supplies	23
	Photographic sequence illustrating the building, trimming, and covering of a salt stockpile	28
8	Location map re Atlantic Sturgeon and Shortnose Sturgeon areas of reported sitings	46
APPENDICES		
A	General Location Maps / USGS Quad	
B	Site and Outfall Map	
C	Notice of Intent	
D	Inspection Report for Unauthorized Non-Stormwater Discharges	
E	Monthly Routine Inspection Reports and Repairs	
F	Log of Employee Training & Attendance	
G	Quarterly Visual Monitoring Inspection Documentation	
H	Stormwater Monitoring Data	
I	EPA Impaired Water Report	
J	Corrective Action Log	
J-1	Additional Implementation Measures	
K	Comprehensive Site Inspection Documentation	
L	Leaks and Spill Logs	
M	Endangered Species Documentation	
N	Historic Properties Documentation	
O	Amendments to SWPPP Log	

Section	Content	Page
P	EPA Facts Sheet for Sector P Trucking and Storage	
Q	EPA Facts Sheet for Sector Q Marine Transportation	
R	2021 Multi-Sector General Permit for Industrial Activities (MSGP) (In separate binder and also available online.)	

SECTION 1: Facility Description & Contact Information

1.1 Facility Information

Granite State Minerals, Inc.
227 Market Street
Portsmouth, NH 03801

Previous NPDES ID: NHR05J00T

This marine terminal is in Rockingham County.

Primary Industrial Activity SIC Code, and Section/Subsector of MSGP:

4491 Marine Cargo Handling: docking and unloading of Ships, storage of road salt cargos at the terminal, loading and weighing of delivery trucks for the carriage of road salt to public safety agencies. *See Part 8, **Sector Q** of the General Permit at pages 172 to 175.*

4214 Local Trucking with Storage is a secondary activity. Delivery trucks are owned and operated by third parties. They do not park at the facility. Truck operators respond to requests from the facility's dispatcher, receive a load, weigh out, and depart for delivery to public safety agencies. *See Part 8, **Sector P** of the General Permit at pages 169 to 171.*

Latitude: 43°04'49"N (decimal degrees are 43.08027778)

Longitude: 70°45'34"W (decimal degrees are 70.75944444))

Consultant used NHDES Web Site to derive latitude and longitude

Horizontal Reference Datum: NAD 83

This facility is not located in Indian Country.

Granite State Minerals, Inc. is not a "federal operator" of the facility.

Estimated Area of Activity Exposed to Stormwater: The area used for ship unloading, road salt storage, and the loading and weighing of trucks for delivery of road salt to public safety agencies is approximately 2.80 acres. *See Map and Appendices References in Section 1.1.1 of this SWPPP.*

Municipal Systems / Receiving Waters: The facility does not discharge stormwater to a municipal storm sewer system. Portsmouth, NH is subject to MS4 coverage, but the facility has no connection to the City’s storm drains, including a City drain that runs under the facility. The City drain discharges at the facility shoreline. In the area where industrial activity subject to the General Permit takes place, the stormwater discharges to the Piscataqua River.

Piscataqua River: The river (Portsmouth Harbor) is the surface water that receives stormwater. It is tidal.

Impaired Waters: The “Lower Picataqua River,” identified by NHDES as assessment unit NHEST600031001-02-02, is an impaired water within the scope of Appendix A. According to the *State of New Hampshire 2018 Section 303(d) Surface Water Quality List*, this segment of the river is Category 5. This means that this segment of the river is classified as being in need of a “Total Maximum Daily Load,” or “TMDL,” but does not yet have one. Listed impairments are:

- Estuarine Bioassessments
- Polychlorinated biphenyls
- Dioxin (including 2,3,7,8-TCDD)

US EPA Region I Guidance does not require monitoring for these pollutants. We have confirmed with Region I that no impaired water monitoring is required.

Monitoring Effluent Limitations: None applicable to this Site. *See* pages 36-40 of this SWPPP for benchmark monitoring and other water sampling requirements.

1.1.1. Facility Information Diagrams

See “General Location” at **Appendix A**. *See* “Site Maps” at **Appendix B**. *See* also **Figure 1** (aerial photograph of Portsmouth Harbor) at page 5; **Figure 2** (aerial photograph of primary components of the facility) at page 7; and **Figure 4** (Site Map with key features) at page 11.

1.2 Contact Information / Responsible Parties

Facility Operators:

Granite State Minerals Market Street Terminal
227 Market Street
Portsmouth, NH 03801
Telephone No. (603) 436-8505

Facility Owner: Granite State Minerals, Inc. has a long-term ground lease.
The fee owner is:

227 Market Street LLC
27 Austin Street
Portsmouth, NH 03801

Primary SWPPP Contact:

Justin Sunderland
Telephone No. 603-436-8505 (terminal office phone)
Email: jsunderland@gsmsalt.com

Secondary SWPPP Contact:

Amy McLaughlin
Telephone No. 603-436-8505
Email: amclaughlin@gsmsalt.com
Fax: 603-436-2458

Compliance Support for SWPPP:

Greg Coppola
Eastern Salt Company, Inc.
99 Marginal Street, Chelsea, MA 02150
Email: gcoppola@easternsalt.com
Cell Phone: 718.594.5953

1.3 Storm Water Pollution Prevention Team

MSGP Reference: Section 5.2.1, Page 31

NAME	INDIVIDUAL RESPONSIBILITIES
Justin Sunderland • 603.436.8505 jsunderland@gsmsalt.com	Coordinates implementation and oversight of the SWPPP's Best Management Practices (BMPs)—including site inspections, the collection and documentation of quarterly visual samples, implementing and maintaining control measures, and taking corrective actions and/or AIM responses, when required. Oversees the annual review of the SWPPP. Performs inspections. Oversees the collection and reporting of water samples for benchmark testing. Oversees the preparation and recording of Quarterly Visual Samples and other reports. Oversees all aspects of daily housekeeping at the terminal, including but not limited to removal of materials from surfaces exposed to stormwater, inspection and repair of stockpile covers, replacement of wattles, catch basin socks, and related BMPs. Implements corrective action as needed. Documents inspection observations and corrective action in written reports.
Amy McLaughlin • 603.436.8505 amclaughlin@gsmsalt.com	Primary spill response coordinator. Performs inspections and completes inspection reports.
Sam Stanley • 603.436.8505	Secondary spill response coordinator.
Janet Harrington • 603.436.8505	Secondary spill response coordinator. Assists with reports.
Greg Coppola • 718.594.5953 (c) gcoppola@easternsalt.com	Conducts at least monthly reviews to the SWPPP and supporting documentation. Makes sure the SWPPP, inspection records, and other records are current. Provides assistance with water quality sampling and reporting. Provides assistance with inspections, training, and other compliance activities.

Joe McNamee <ul style="list-style-type: none"> 978.764.2303 (c) 978.458.6420 (o) jmcnamee@easternminerals.com	Oversees development of the SWPPP, and modifications to it. In consultation, recommends capital improvements if needed. Oversees repairs if needed.
---	---

1.4 Site Description

MSGP Reference: Section 6.2.2 and includes subparts 6.2.2.1 (Activities at the facility), 6.2.2.2 (General location map), and 6.2.2.3 (Site map with 23 subparts)

The Granite State Minerals Marine Terminal is **approximately 2.8 acres at 227 Market Street** near downtown Portsmouth, New Hampshire. The terminal operates on the shore of the Piscataqua River in Portsmouth Harbor. Granite State Minerals uses the terminal to berth ships; unload bulk cargoes (primarily road salt); stockpile the cargoes, and load trucks that deliver the salt to public-safety agencies for snow and ice control.



Figure 1: General Location of the Terminal. The Receiving Waterway is the Piscataqua River. Average Salinity is 30 parts per thousand, and the river has a strong tidal current.

1.4.1 Cargo Handling Activities

GOAL: Keep material out of the waterway. STANDARD: Minimize the risk of stormwater transporting material to the waterway.

The flow of activity involves primarily the movement of road salt cargoes from ships to the laydown area to the trucks that deliver the salt to state and local public safety agencies. Subsets of this activity, and the auxiliary support activities, are as follows:

Berthing of Cargo Ships: Oceangoing ships—approximately 500 to 650-feet long—deliver road salt cargoes to the terminal. During docking and departure, river pilots command the ship’s tugboats to assist the maneuvers.

- Does not generally present a stormwater impact
- Terminal needs to be vigilant about oil spills from any vessels, especially if the vessel refuels from a barge while docked at Granite State. Notice to Coast Guard and NH DES required if spill from vessel occurs. **See Cover for emergency telephone numbers.**

Shore Cranes Lift Cargo: Two Manitowac crawler cranes operate on the pier between the berthed ships and the cargo laydown area. See photo at **Figure 3** on page 10 of this SWPPP. Cranes lift buckets filled with salt, then swing to cargo laydown area.

- The terminal should service its buckets annually to reduce leakage of salt during cargo swings.
- Crane operators should release filled bucket at lowest practical and safe elevation in laydown area to reduce risk of fugitive salt dust.
- Crane operators should immediately report any fuel or fluid leaks and countermeasures should be taken to prevent spill into waterway. Spill control measures should be in effect when cranes are refueled or if repair work is conducted on the pier. Clean up grease, if any, near or under cranes.
- **Assist Bulldozers:** The shore cranes also lift small bulldozers into and out of the ship cargo holds. The dozers push salt to the center of the cargo holds so that the bucket loading process is efficient. These operations should be conducted in accordance with the terminal’s *Cargo Dozer Refueling Operations Manual*. The manual is organized in compliance with U.S. Coast

Guard regulations, 33 CFR Parts 154 and 156, and has been reviewed by the local Coast Guard Marine Safety Office.



Figure 2: This aerial photograph shows the arrangement of the primary components of the Granite State Marine Terminal.

Loaders and Dozers Build the Pile: As the cranes unload salt to a drop point, front-end loaders carry the salt to the large stockpile. Typically, the stockpile will be shaped with a ramp sculpted into the pile so that machinery can reach the top and consolidate the salt to the height achievable based upon the stockpile's footprint and the salt's angle of repose.

- Loaders and dozers need to be serviced on a regular basis to avoid fuel leaks and to reduce the risk of hose breakage and hydraulic fluid releases.

- Maintenance work should take place in the garage when feasible to reduce contact with rain or snow and to reduce the risk of spillage into the waterway.

Tarp Installed on Pile: When the road salt stockpile is shaped, trimmed and ready for covering, Granite State hires a subcontractor to install a heavy-duty, rip-stop plastic tarp. The cover consists of sections of plastic sheeting, and the contractor uses a hand-held mechanical stitching machine to sew the seams together over thick, textile-backing. To reduce the risk of wind damage, the contractor rigs lines across the pile and uses plastic bags filled with salt to weigh down the lines and form a web over the stockpile.

- Safety is the top priority during the installation of covers, the repair of covers, and the removal of covers. This work should not be performed if wind exceeds 10 m.p.h., or if precipitation is falling.
- The cover needs to be tightly sewn to reduce the risk of moisture finding its way through any seams. Covers need to be inspected on a regular basis to detect tears so that repairs can take place promptly.
- The tarps should reach to the toes of the stockpile.
- Housekeeping needs to remove all cut pieces of cover and other materials so that these items do not fall into the waterway.

Tarp Cut Back for Working Face: When salt-shipment season begins, the terminal cuts back part of the tarp to create a working face. The face should be worked evenly in a left-right and right-left fashion to avoid surrounding the loader crews with near-vertical working faces.

- Safety permitting, the working face should be formed to satisfy the daily orders. As much of the tarp should be left in place as long as is safe and practical in order to reduce the exposure to rain and snow.
- As the cargo-handling crews cut back the tarp, removed sections should be placed in a dumpster for removal and disposal by a licensed hauler.

Delivery Trucks Loaded: Granite State uses frontend loaders to lift salt from the stockpile into 18-wheel tractor-trailers or into salt-spreader trucks.

- Salt residue in the loading area should be monitored throughout the operation, and the operating crew should sweep the area at the end of loading operations.
- Make sure the truck tailgate is secure and not leaking salt. Drivers should be notified of leakage and required to get repairs before returning to the yard.

Trucks Weighed, Loads Covered: After loading, trucks should proceed immediately to the scales.

- Make sure the tailgate is not leaking salt.
- Require all truck drivers to deploy a cover over their truck bed so that only covered loads leave the yard and enter the public way.
- Sweeping and other measures should prevent off-site tracking of salt.

Season's End: When the winter ends, some public-safety agencies do “spring fill-ups” of their salt sheds. When inbound and outbound deliveries of salt come to an end, all remaining inventory at the terminal is covered.

1.4.2 Associated Support Activities

There are several activities that do not directly involve cargo handling, but that are carried out in support of the overall cargo-handling mission of the marine terminal. Some of these activities involve potential risk of stormwater impacts:

Maintenance of Equipment: The general rule is to use the garage—when feasible—to maintain and repair vehicles and equipment. (The cranes cannot fit within the garage.) Some lubrication activities and unplanned repairs (e.g., a broken hose on a vehicle) may require immediate attention outside.

- Any vehicle or equipment repair or maintenance should be conducted indoors if feasible. If rain is falling, measures need to be taken to prevent any lubricants, coolants, fuel, or other fluids from reaching the waterway.
- An adequate supply of Speedy-Dry and cleanup pads and cleanup supplies should be on site, and all yard employees should be trained to use and dispose of these materials. Speedy-Dry or cleanup materials with oil or other fluids in them need to be disposed of in drums or other containers designated for handling, hauling, and disposal by licensed waste transporters.
- Measures to contain spills should be in place during fueling. Dry cleanup of small, non-reportable spills is required so that petroleum residue does not become mixed with stormwater

Refueling: Granite State contracts with a third-party fuel vendor to enter the terminal with a tanker truck to refuel the cranes, loaders, and other equipment. Granite State employees should observe the refueling operation and be prepared to deploy anti-spill measures if a release of fuel occurs.

- Temporary secondary containment should be available for use depending upon site conditions.
- Containment and cleanup equipment should be readily available.
- Employees should observe in order to respond to a spill promptly to avoid material entering the waterway.
- Small spills or residue should be cleaned up immediately with dry cleanup methods and properly disposed.
- Cranes typically remain in position on the crane pads or the crane barge except when temporarily relocated for maintenance or repairs. Extreme care should be used when refueling the cranes.
- Refueling of assist bulldozers on board the ships should be conducted in accordance with the *Cargo Dozer Refueling Operations Manual*. A copy is available in the Terminal Office.



Figure 3: A pair of Manitowac mobile cranes move the salt cargos from ship to shore.

In connection with preparing the SWPPP, the Pollution Prevention Team confirmed that the facility does not have the capacity to store more than 1,320 gallons of oil and/or fuel. No SPCC is required.

1.5 General Location Map

See The aerial photograph at **Figure 1** page 5 above for the location of the Granite State Minerals marine terminal in Portsmouth Harbor. See also the USGS topographical quadrant and other illustrations in **Appendix A** of this SWPPP.

1.5.1 Site Map

In addition to the Site information illustrated below, *see* the General Arrangement of the Facility in **Figure 2** above on page 7.

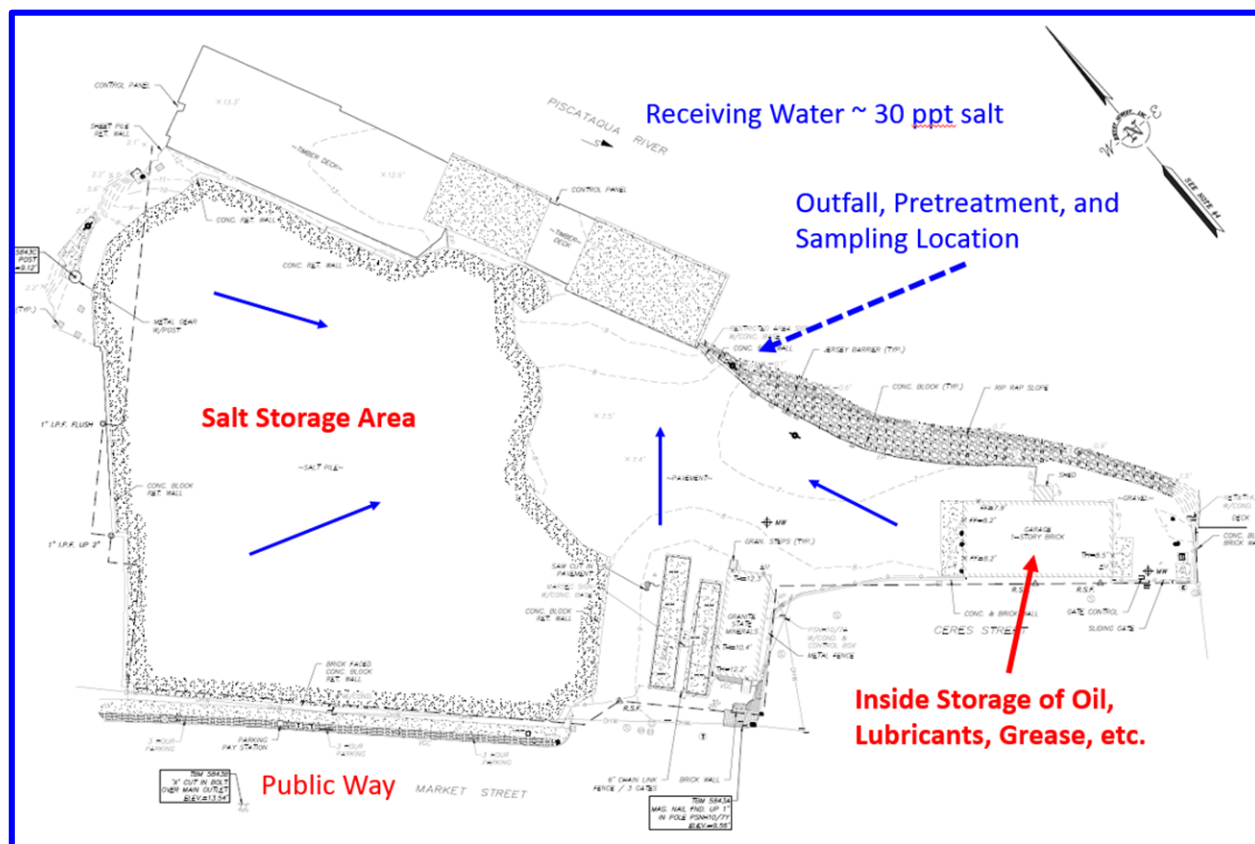


Figure 4: Site Map Marked with Key Features

Figure 4 is from a survey and engineering plan for stormwater management improvements. Site boundaries are the dotted lines in black. Blue solid arrows indicate estimated directions of stormwater flow.

As far as the current ground tenant knows, no spills or releases of a mandatory reportable quantity have occurred at the Site. There are no areas of critical habitat. Other illustrations in this SWPPP identify areas for material handling, truck loading, vehicle refueling, and other industrial activities.

SECTION 2 Summary of Potential Pollutant Sources

See General Permit Section 6.2.3 at page 57.

The information in this section is to 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” this SWPPP. *General Permit Section 6.2.3.2.*

General Permit’s Definition of “Pollutants”

Note to SWPPP Team: “Pollutants” are defined officially at 40 CFR 122.2. Appendix A to the GP states: “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.”

For purposes of this section, the SWPPP discusses the facility in the context of three sub-areas: (a) the Rock Salt Storage Area; (b) the Garage Area; and (c) the Weight Scales/Treated Salt Area. The facility has two weight scales.

2.1 Potential Pollutants Associated with Industrial Activity

See General Permit Sections 6.2.3.1 and 6.2.3.2 at page 57.

- a. **The Rock Salt Area** covers approximately the western half of the site, and is west of the truck scale. *See **Figures 2** and **4** above.* It is bordered by the timber deck and the Piscataqua River to the north, Market Street to the south, the property boundary to the west, and the truck entrance to the east. A setback separates storage locations from property boundaries. Activities and potential pollutants in this area include:
 - **Cranes** operate in this area, lifting salt from the forward hold of the ship in the berth, swinging the loaded bucket across to the shore, and emptying the bucket onto the drop point on the surface of the wharf. If the crane bucket is not aligned, it can drop **salt residue** under its swing path. The crane is also a source of **fuel, oil, grease, and antifreeze** if not properly maintained and leaks develop or hoses

break. These materials can be exposed to storm water if released during a storm or not cleaned up before a storm.

- **Loaders** operate in this area to build the stockpile. Loaders present the same pollution potential as trucks: drips or spills of **fuel, oil and grease, or antifreeze**.
- **Trucks** travel into this area to queue for loading, to take on loads of salt, and to leave the area for the scales. Trucks present the same potential pollutant risk: **fuel, oil, grease, or antifreeze**. The area needs to be inspected on a regular basis. Small releases of these pollutants NEED TO BE ABSORBED WITH SPEEDY DRY AND THEN SWEPT.
- Storm water can contact the **road salt** during truck unloading; during the period when the stockpile is built, shaped, and trimmed; and when the cover is opened in order to load trucks for delivery to public safety and other customers.

b. **The Garage Area**: This sub-area includes the Garage Structure, the shed to the north of the garage, and the exterior areas adjacent to the garage. *See **Figures 2 and 4*** of this SWPPP. The garage includes two roll-up doors and is large enough to accommodate two vehicles for repairs and maintenance. Lubricants are stored inside this building, as are the waste oil drums. Waste oil is removed by a licensed, third-party vendor. *Activities and potential pollutants* in this area include:

- **Loaders and other equipment** go into and out of the garage for repairs and maintenance and could release oil, grease, antifreeze, or fuel.
- **Employee and visitor cars** may be parked in the area between the site entrance and the garage and could leak oil, grease, antifreeze, and fuel if they were leaking.
- **Materials Stored and Used** in the garage—oil, grease, antifreeze, and other repair and maintenance lubricants—could leak or spill in this area.

c. **Weight Scale Area**: This sub-area contains an office building and two scales used to weigh trucks after they have been loaded with road salt and before they depart the site. Activities in this area of the property include:

- **Trucks** loaded with salt drive to the scale; stop and have their weight recorded; and receive a bill of lading and other documentation for

delivery of the salt to public safety users. Truck could leak oil, grease, antifreeze, and fuel if they have not been properly maintained.

- Loaders present the same potential for pollution as noted in other sub-areas.
- Truck Scales present a risk of salt residue as trucks stop and start on the scales. Pollution prevention also needs to be performed when the scales are recalibrated, greased and painted, or otherwise maintained.

2.2 Spills and Leaks

See General Permit Section 6.2.3.3 at page 57.

Aside from the relatively minor incident described below, no significant spills and leaks of contaminants have occurred at the terminal during the last three years (2018-2021). Small leaks, drips, or spills of fuel, oil, grease, antifreeze, or lubricants have been treated with Speedy Dry, shoveled into storage barrels, and periodically removed from the site by a licensed waste hauler. The locations where potential spills and leaks could occur are identified in the previous section.

In July 2020, during a routine inspection, the PPT inspector observed a slow drip of fuel oil from a pin hole in the tank of a Manitowac crane parked on a swamp mat. He observed a spot of oil on the swamp mat and another spot in compacted gravel at the upland edge of the mat. The on-scene PPT member immediately placed oil-absorbent pads under the tank, attempted to reach the Coast Guard, and then called the National Spill Response hotline. During a follow-up call from the Coast Guard, the PPT member confirmed that the release had not reached the receiving water, and no oil sheen was visible. After the hotline call, he called additional personnel to the terminal. The team drained the tank, inspected the crane, and had the pin hole in the tank repaired. The PPT member who first observed the leak estimated that no more than two gallons were released. As of the November 2020 routine inspection, some staining from residual oil remained stabilized within the compacted gravel. Aside from this event, terminal personnel have not observed any spills of petroleum products, hazardous materials, or other non-stormwater discharges in the last three years.

2.3 Unauthorized Non-Stormwater Discharges

See General Permit Section 6.2.3.4 at page 58.

In connection with the preparation of this SWPPP, a site inspection conducted on May 25, 2021 by a member of the Pollution Prevention Team, observed no unauthorized non-stormwater discharges. A copy of the inspection report is included in **Appendix D**.

Earlier information does not reveal any mention of unauthorized non-stormwater discharges. An independent consultant evaluated the Site for discharges in July 2015 in connection with the preparation of an ASTM Phase 1 Report. The examination was visual. No unauthorized non-stormwater discharges or likely sources of an unauthorized non-stormwater discharge were mentioned in the report. Repair of the rip-rap bank along the southern section of the facility's shoreline took place subject to various NHDES and other permits in 2017-2018. Facility personnel and consultants did not report any unauthorized non-stormwater discharges during permitting or repairs.

City of Portsmouth records indicate that a city-owned storm drain runs under the terminal from Market Street to the Piscataqua River. The terminal does not have any drains or other access points that connect to the municipal drain.

Oil supplies are inside the garage in aboveground storage tanks of recent vintage. Waste oil barrels and other collection containers are inside the garage. Sanitary systems for workers are self-contained, portable systems.

2.4 Salt Storage

See General Permit Section 6.2.3.5 at page 58.

The Granite State marine terminal handles road salt cargoes that the company distributes to state and local public-safety agencies for winter snow and ice control. The terminal, as evidenced in **Figures 1** and **2** is located on the industrial, urban shoreline of the Lower Piscataqua River in Portsmouth Harbor. The river is a tidal arm of the sea, and published salinity data indicates that average salinity is approximately 30 parts per thousand (ppt) in the action area of the Granite State terminal. Note that full-strength seawater is approximately 35 ppt. Drinking water, on average is less than 1 ppt. EPA considers the division between fresh water and saline waters as 10 ppt. The tidal Piscataqua is the third fastest moving navigable river in the world with tidal currents in the vicinity of Granite State averaging 4 knots

(2 meters per second [mph]). See *Army Corps of Engineers Feasibility Report and Final Environmental Assessment* at **Appendix I** (Cultural Resources) (July 2014).

As indicated in Figure 2, the company stockpiles the road salt in the northwest sector of the terminal. The company covers the stockpile through the late spring, summer, and early fall months, and keeps the cover in position as long as possible as the winter snow and ice season approaches.

The stockpile capacity is approximately 105,000 tons of road salt. The amount of salt throughput depends upon the winter weather. Most public safety agencies publish bids for road salt supplies, and most bids impose clauses which require suppliers to have adequate amounts of inventory on hand to satisfy “just in time” orders. The same clauses relieve most state and local government buyers from any obligation to buy salt if there is no snow and ice and no need for deicing supplies.



Figure 5: Example of synthetic tarp fully in place at the Market Street entrance to Granite State Minerals.

2.5 Sampling Data Summary

MSGP Reference: Section 6.2.3.6 at page 58 of the General Permit (“summarize all stormwater discharge sampling data collected at the facility during the previous permit term”)

This section requires a summary of sampling data collected at the facility during the previous General Permit term, *i.e.*, 2015 through 2020. Pursuant to the facility’s Sector Q status (“Water Transportation, pages 172-175 of the 2021 MSGP, SIC Code 4491 “marine cargo handling”), the facility collected water samples in the third and fourth quarters of 2020. Narrative summaries of the analyte results follow:

Sector Q Benchmarks—Through December 31, 2020

Aluminum: Aluminum results for the third and fourth quarters of 2020 were 1.05 mg/L (1,050 ug/L) and 1.11 mg/L (1,110 ug/L). The benchmark during the previous permit term was 0.750 mg/L (750 ug/L), but it has been raised to 1.1 mg/L (1,100 ug/L) under the new permit. While both were exceedances under the old permit, under the current permit, the results were under and just slightly over the new benchmark. Samples were collected from the pavement surface as the site does not currently have an outfall.

Lead: Under the previous permit and the 2021 General Permit, the benchmark for total recoverable lead—if the receiving water (like the Piscataqua River) is saline—is 210 ug/L (0.210 mg/L). No exceedances were recorded in the previous permit term.

Zinc: Under the previous permit and the 2021 General Permit, the benchmark for total recoverable zinc when the receiving water is saline is 90 ug/L (0.090 mg/L). No exceedances were recorded in the previous permit term.

Iron: Total recoverable iron is no longer a Sector Q Benchmark. The facility did sample for iron during the previous permit period and had exceedances of the 1,000 ug/L (1.0 mg/L) benchmark.

Indicator Sampling

Under the previous General Permit, “Indicator Monitoring” for certain sectors was not a requirement. Going forward, Indicator Monitor/Sampling will be required for facilities that have a primary or co-located Sector P (Land Transportation and Warehousing). Because seasonal busy truck traffic occurs at the terminal in the fall,

winter, and spring, Granite State identifies its secondary activity as a Sector P form of work. Consequently, in the 2021 permit period, “Indicator Monitoring” is required for the following analytes:

- **pH** is a value on a logarithmic scale from 1 to 14 that measures the acidity of water. Materials on the low end of the scale are more “acidic” and cause the release of hydrogen ions. Materials on the high end of the scale absorb a hydrogen ion and are more “basic.” A water sample with a pH of 7.0 is ten times more acidic than a sample with a pH of 8.0. The higher value is ten times more basic than the lower one. When pH of water is too high or low, it kills aquatic creatures. pH extremes can also make toxic chemicals and heavy metals more soluble. Most aquatic creatures tolerate a pH range of 6.5 to 9.0. Humans can tolerate 4.0 to 11.0. **Under the General Permit, the preferred range of pH is 6.0 to 9.0.**
 - The facility has not previously tested its water samples for pH. It will be necessary to do so going forward. pH values will need to be measured and recorded at the time of sampling.
- **Total Suspended Solids (TSS)** are particles larger than 2 microns found in the water column. For perspective, the average human hair is approximately 70 microns in width. TSS includes anything drifting or floating in the water—sediments, silt, sands, gravel, clay, plankton, algae, organic particles from decaying plant and animals. Note that salt ions can collect suspended particles, bind them together, and cause them to settle to the bottom due to the increase in weight. High levels of TSS increase water temperature and decrease dissolved oxygen levels.
 - Although not mandated under the previous permit, the facility collected TSS data as an indicator of housekeeping quality. Although there is no indicator concentration in the General Permit, sectors that require TSS benchmarks focus on the 100 mg/L standard. TSS data samples did not exceed 100 mg/L during the previous permit period.
- **Chemical Oxygen Demand (COD)** is a testing method to measure the amount of materials in the water column that react with oxygen and thereby remove it from the water column—lowering the amount of dissolved oxygen used by aquatic wildlife and plants.

- Note that COD measurement is significantly affected by salt in the water sample. Laboratory COD results for samples with some salt content are generally skewed and unreliable.
- The facility did not collect COD data during the past general permit period.
- **Biological Oxygen Demand (BOD)** is an alternative test not vulnerable to the skewing caused by salt in the water. BOD typically has a 1 to 4 ratio compared to COD data, and the BOD benchmark, when applicable, is 30 mg/L. The facility did collect BOD data during the past general permit period, with results under this threshold. **Under the 2021 General Permit, the facility should also collect BOD data in order to put the COD results in proper context.**

Indicator monitoring is now also required for facilities in Sector Q (SIC Code 4491). These facilities must monitor stormwater discharges for the 16 individual priority pollutant PAHs identified at Appendix A to 40 CFR Part 423. These are: 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. The facility has not previously monitored for these analytes.

Impaired Water Sampling

The Lower Piscatqua River is an impaired waterway. It does not, however have a TMDL. Although the latest NH DES information indicates the TMDL Priority is low, State Pier SWPPP and other reports indicate impairments exist for Estuarine Bioassessments, PCBs, and Dioxin (including 2,3,7,8-TCDD). EPA has confirmed that no impaired waters monitoring is required for these impairments.

See excerpt from NH DES map database on next page.

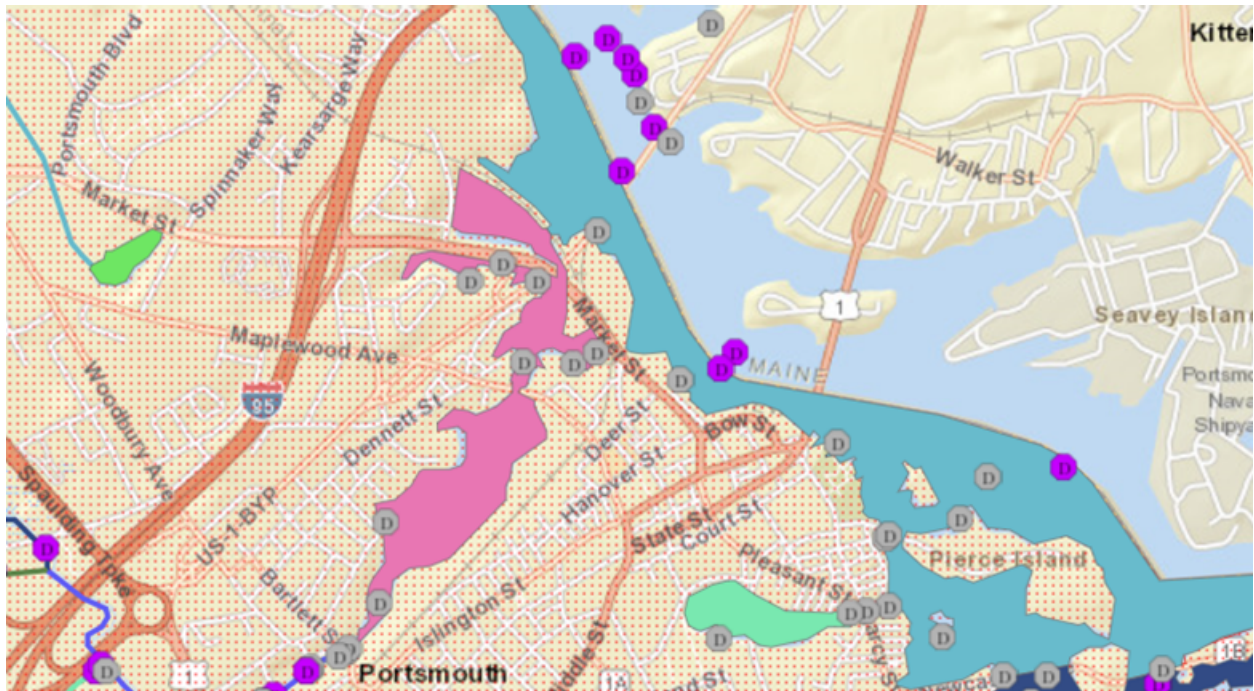


Figure 6: Excerpt from NH DES map database for impaired waterways. The turquoise color in the river is Category 2 under the State system, but is not Federal Tier 2, 2.5, or 3.

Effluent Limitations

The facility does not conduct any activities that trigger the applicability of effluent limitations and the testing of analytes subject to the limits.

SECTION 3: Description of Stormwater Control Measures for Technology-Based & Water-Quality Based Effluent Limits

See General Permit at Part 2 (pages 17-26), Part 8 (Sectors Q and P), and Section 6.2.4 at page 58.

The SWPPP Team must document the location and type of control measures chosen and/or designed to comply with the Multi-Sector General Permit. *See the General Permit at Section 6.2.4, page 58.*

3.1 Non-Numeric Technology-Based Effluent Limits

For purposes of the General Permit, the term “Effluent Limitations” is defined in the General Permit as “any of the Part 2 requirements” set forth from pages 17 to 26 of the General Permit. *See MSGP Appendix A definitions at page A.3 of 11.* “Non-Numeric Technology-Based Effluent Limits” include the following. The numbers below refer to the Section Numbers in the General Permit:

- 2.1.2.1: Minimize Exposure (*page 19*)
- 2.1.2.2: Good Housekeeping (*page 20*)
- 2.1.2.3: Maintenance (*page 20*)
- 2.1.2.4: Spill Prevention and Response (*page 21*)
- 2.1.2.5: Erosion and Sediment Controls (*page 22*)
- 2.1.2.6: Management of Runoff (*page 22*)
- 2.1.2.7: Salt Storage Piles (*page 22*)
- 2.1.2.8: Employee Training (*page 23*)
- 2.1.2.9: Non-Stormwater Discharges (*page 23*)
- 2.1.2.10: Dust Generation and Vehicle Tracking (*page 23*)

Granite State, with the assistance of Tighe & Bond, is ***prepared to submit permit applications*** to obtain permission to construct the following site controls:

- **Modify the grade or Install Berm** at the site to reduce the amount of stormwater contacting or running under the salt stockpile.
- **Installing Cape Cod berms** at several perimeter locations to reduce the risk of sheet flow reaching the waterway by redirecting stormwater flow.
- **Installation of a separator** capable of segregating oil and grease, solids, and floatables before stormwater discharge. Include sufficient infrastructure for sampling station and potentially more treatment.

3.1.1 Minimize Exposure: (Section 2.1.2.1)

- **Containment Measures:** In all salt storage locations, the toe of slope of salt piles should be bordered by hay wattles, temporary clay berms, or folded tarps to minimize the discharge of salt in contact with stormwater.
- **Cleanup Spills and Leaks:** Employees will be trained to (a) identify and report spills or leaks and to (b) clean them up using dry-absorbent methods as promptly as is feasible.

- **Covering Materials:**
 - Lubricants, waste oils, and other potential pollutants must be kept inside the garage. Only a licensed hauler may remove.
 - For covering of salt piles, see Section 3.1.7 below.
- **Inspect Machines and Equipment:** This shall be done on a regular basis: before the use of each machine and at the conclusion of the machine's or equipment's operation. Leaks or other potential pollution sources shall be reported to the site manager or company mechanic and immediate measures will be taken to contain or eliminate any dripping or other release. If a machine breaks down during operation, prompt measures must be taken to contain and cleanup any release of fluids.

3.1.2 Good Housekeeping: (Section 2.1.2.2)

- **Sweeping or Scraping:** Employees will sweep up or scrape up salt or other materials when practicable under prevailing weather conditions. The General Permit states: "Sweep or vacuum at regular intervals." *See page 20.* Training will emphasize the importance of sweeping or scraping on a frequent basis, and not leaving residue on the hard surfaces to the extent that it is feasible to avoid. Training shall emphasize the connection between diligent housekeeping and the minimization of any solids or salt being carried away by stormwater.
- **No Detergents:** If any wash down of pavement takes place, no detergents or hazardous cleaning products may be used. *See the General Permit at Section 1.1.3.1 at page 2.* Before any washing takes place, oil and grease must be cleaned up using dry absorbents. The area should also be swept or scraped before any wash down.
- **Dumpster:** Should only be used for dry, solid, non-hazardous waste. For example, speedy dry used to clean up spills and leaks must go to the waste oil collection area, *not* the dumpster. Keep the dumpster lid closed when not in use, cover with a tarp, or have containment around the base. If tarp sections go into an uncovered roll-off, make sure they are free of waste before disposal.
- **Appropriate Storage:** Materials, tools, equipment, and waste must be stored properly. Storage in containers should be used when available. Waste oil and

similar liquid waste must be stored inside the garage and removed by a licensed hauler on a regular schedule.



Figure 7: The Facility should stress indoor storage of vehicles, equipment, and supplies.

- **Wheel Tracking:** During shifts when vehicle deliveries of salt are inbound or outbound, the shift crew must monitor the entrance/exit points to report any vehicle tracking so that measures to eliminate off-site tracking may be implemented
- **Trash and Debris:** 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.

3.1.3 Maintenance (Section 2.1.2.3)

The General Permit, *see pages 20 and 21*, requires the PPT and all facility employees to maintain all control measures in effective operating condition. The control measures—housekeeping, covers, engineered devices—are the mechanisms used to achieve the effluent limits in the General Permit. In addition, all industrial equipment and systems must be in good working order to minimize pollutant discharges. This includes:

- Performing inspections and preventive maintenance of stormwater drainage, source controls, treatment systems, and plant equipment and systems that could fail and result in contamination of stormwater.
- Diligently maintaining non-structural control measures (e.g., keep spill response supplies available, personnel appropriately trained).
- The General Permit requires cleaning of catch basins if the depth of debris reaches two-thirds ($\frac{2}{3}$) of the sump depth. The debris surface must be at least six inches (6") below the outlet pipe.

Maintenance Deadlines (Section 2.1.2.3[b]) MSGP at page 21

If a Control Measure needs routine maintenance: “YOU MUST CONDUCT THE MAINTENANCE IMMEDIATELY IN ORDER TO MINIMIZE POLLUTION DISCHARGES.”

If a Control Measures needs to be repaired or replaced:

- “IMMEDIATELY TAKE ALL REASONABLE STEPS TO PREVENT OR MINIMIZE THE DISCHARGE OF POLLUTANTS.” THIS INCLUDES CLEANING UP CONTAMINATED SURFACES.
- MAKE FINAL REPAIR OR REPLACEMENT “AS SOON AS FEASIBLE BUT MUST BE NO LATER THAN ... 14 DAYS.”
- IF TWO-WEEK TIME FRAME IS INFEASIBLE, COMPLETE NO LATER THAN 45 DAYS.
- IF REPAIR OR REPLACEMENT WILL TAKE **LONGER THAN 45 DAYS**, YOU MUST NOTIFY EPA AND DOCUMENT REASONS FOR DELAY IN THIS SWPPP.

3.1.4 Spill Prevention and Response: (Section 2.1.2.4) MSGP pp. 21-22.

The General Permit requires the SWPPP Team and facility personnel to 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. The SWPPP Team must conduct spill prevention and response measures, including but not limited to the following:

- **Labels:** Plainly label containers (e.g., “Used Oil,” “Spent Solvents,”) that could be susceptible for spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur.
- **Indoor Storage:** The property contains a garage. Use it for the storage and handling of oil and other lubricants. Use it also for the storage of

any waste oil or other material to be picked up and transported by a licensed hauler. Implement procedures for material storage and handling, including the use of secondary containment.

- **Promptly Clean Up** spills and leaks using DRY METHODS.
- **Leaky Vehicles**: “Use drip pans and absorbents if leaky vehicles and/or equipment are stored outdoors.” (*page 21*).
- **Training**: Site crew must have regular training on the procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases that may occur in the yard. As appropriate, execute cleanup procedures as soon as safely possible.
- **Spill Kits**: An adequate supply of Speedy Dry must be kept inside the garage. Site crew must receive regular training in the deployment of Speedy Dry wherever needed on the site. Speedy dry must be cleaned up and put in a barrel inside the garage for removal by a licensed waste hauler.
- **Notification**: Notify appropriate facility personnel of a leak, spill, or any release. If a reportable quantity of oil or other material has been spilled, notify the appropriate government agencies. State information <https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/2020-01/rem-13.pdf>

Notification, “Contaminated Sites Management” Env-Or 604.06

Any responsible party or other person having knowledge of a discharge of oil shall report such discharge to the NHDES Waste Management Division immediately (603) 271-3899 (Monday through Friday, 8 a.m. to 4 p.m.), or to the New Hampshire State Police Dispatch at (603) 223-4381 (24 hours/day), unless **all** five of the following conditions are met:

1. The discharge is less than 25 gallons.
2. The discharge is immediately contained.
3. The discharge and/or contamination is completely removed within 24 hours.
4. There is no impact or potential impact to groundwater or surface water.
5. There is no potential for vapors which pose an imminent threat to human health.

The Coast Guard requires a report for “a sheen upon the water.”

See Emergency Call Numbers Below or on Cover of SWPPP.

National Spill Response Number: 1-800-424-8802
United States Coast Guard, New Castle, NH: 1-603-436-4415.
NH Dept. Env. Services Spill Response: 1-603-271-3899 (Business Hours)
Weekend & Evening Spill Response: 1-603-223-4381 or State Police
Portsmouth Fire Department: 1-603-427-1515 (or 911)

3.1.5 Erosion and Sediment Controls: (Section 2.1.2.5) *MSGP page 22*

The General Permit requires the SWPPP Team and facility personnel to minimize erosion by stabilizing exposed soils.

- **Exposed soils** like piles of dirt or exposed, barren soils should not be maintained on the site. If any soils or dirt are exposed, they should be stabilized, covered, contained, or otherwise maintained so that erosion does not occur and so that dirt is not picked up by rain or snow melt.
- **Planters** around any building should be maintained so that dirt does not erode onto paved areas.
- **Inspections** will note any erosion or potential erosion issues and the inspector will report them to the Terminal Manager.
- Wattles, and other **sediment barriers** will be inspected (and refreshed as needed) on a monthly basis.

3.1.6 Management of Runoff: (Section 2.1.2.6)

See page 22 of the General Permit for information about this task. Containment walls and Cape Cod berms (when installed), the Stormwater treatment unit (when installed), the stockpile covers (when covered), and hay wattles and catch-basin socks are the primary management devices for the management of runoff.

The terminal is in a Portsmouth, New Hampshire's industrial harbor area, and it abuts a very busy **saltwater** shipping channel for oil tankers, other large cargo ships,

tugs, and barges. Salinity in Portsmouth Harbor is approximately 30 ppt. The terminal requires a hard surface for its marine industrial activities. The terminal should not have any capacity for infiltration of stormwater. The terminal was developed in the 1800s as an industrial marine terminal handling coal and other cargo. Prior owners and operators enlarged it over the course of the 1800s and 1900s to its current dimensions. What materials were used in the past to fill in existing wharf areas has not been documented. For salt storage, and in light of the fact that in the past fill materials were not monitored as strictly as they are today, a hard surface without infiltration should be maintained.

3.1.7 Salt Storage Piles: (Section 2.1.2.7)

The primary activity of the facility is to receive road salt by ship at the marine terminal; build the road salt into stockpiles maintained for use in the winter by public safety agencies and other de-icing, road-clearing entities; load the road salt as needed into delivery trucks; and dispatch the delivery trucks to public safety depots and similar entities. Salt will typically be delivered to the property in the spring or early summer, but deliveries in other seasons occasionally occur. Depending upon how much it snows in the winter, varying quantities of road salt will remain onsite at the end of the winter season. State and local public safety agencies do not buy the salt if it does not snow, so a mild winter will leave the company with a large inventory on hand.

Factors affecting inventory are the “just in time” delivery system demanded by public safety customers; the lack of storage capacity at inland depots; the short window of time in which orders must be met (24 to 72 hours); the 6-week to 12-week timeline from getting salt from an overseas mine to Portsmouth Harbor; and the fundamental unpredictability of long-term weather forecasts.

After stockpiles are built, shaped, and trimmed, they should be covered with synthetic tarps as soon as practical under prevailing weather and safety conditions.

The numerous steps involved in building a road salt stockpile, shaping and trimming it, deploying covers, and securing the covers in place are set forth in the 12 images below.

See Next Page for Salt Pile Building and Covering Process



① Salt is unloaded from the ship.



② The salt is transported into the stockpile areas.



③ Front-end loaders build the pile.



④ Once the salt is moved into the stockpile areas, loaders and dozers shape the pile to be covered.



⑤ Vinyl tarps are carried by loaders to the top of the pile. Each roll weighs approx. 500lbs.



⑥ One at a time, tarps are unrolled and spread over the pile. Each tarp is approx. 60' x 250'.



⑦ One at a time, tarps are laid over the surface of the salt pile.



⑧ Weighted bags are tied onto cables that are pre-laminated into the tarp.



⑨ The weighted bags are placed in an approx. 10' grid that holds down the tarp against uplift.



⑩ A seamster climbs up and down the pile along the seams between tarps.



⑪ Adjacent tarps are stitched together with an electric sewing machine like panels in a quilt.



⑫ The final cover is a waterproof skin that snugly encases the unique contours of the salt piles.

See Important Points Set Forth Below:

- It can take numerous days to stockpile, trim, and shape the road salt. Once the trimming and shaping is completed, and when covering is practicable, synthetic tarps will be rolled across the stockpile, sewn together by hand-held machinery, sealed at the seams, weighted down, and secured with ropes.
- Worker safety demands that covering operations be temporarily suspended if the wind speed exceeds 10 m.p.h. or if precipitation makes conditions unsafe for the covering crew.
- During seasons of active delivery of road salt to public safety agencies, primarily the fall and winter road salt seasons, the covers will be cut back from the stockpile and a working face will be open. There are also times when the delivery of salt to the terminal, the constant need to ship out salt, and the variable state of the weather makes the installation or re-installation of the covers infeasible.

3.1.8 Employee Training (MSGP Section 2.1.2.8)

The SWPPP Pollution Prevention (PPT) Team and all employees who work in areas where industrial materials or activities are exposed to stormwater must be trained. They must understand the requirements of the permit and their specific responsibilities with respect to those requirements. The PPT and all other relevant personnel must be trained in at least the following if related to the scope of their job duties. **Training must take place at least once per year for all employees.**

- A short overview of the purposes and policies of the Clean Water Act and also the impact of pollution on water quality.
- An overview of the contents and information in this SWPPP.
- A recognition of and an ability to identify pollutants: oil, grease, or other chemical fluid that is leaking, dripping or spilled; salt residue after loading or unloading operations; trash or other litter that can reach the waterway.
- Know-how and initiative to address pollution removal and not just leave it.
- Spill response procedures and duty to report.
- Good housekeeping, maintenance, and material management.
- Location of stormwater controls and how they are to be maintained.
- Proper procedures for pollution prevention.
- Proper identification, labeling, and storage of bottles or other containers holding oil, grease, or hazardous material.

- Proper identification, labeling, logging, storage, and disposal of waste oil and other chemicals or hazardous material.
- How and when to conduct inspections, make records of findings, keep records, and take corrective actions.
- **Employee Training will take place:**
 - ✓ Under the supervision of the Terminal Manager as a regular aspect of terminal operations. The TM may designate, a member of the PPT to conduct the training.
 - ✓ Training sessions for stormwater issues may be combined with the quarterly safety sessions. Individual employees will receive training and review training materials at least once per year.
 - ✓ The content of the training will focus on the importance of minimizing the pollution of stormwater and the release of any pollutants into the waterway. BMPs and other stormwater management controls or measures will be identified and explained. Pollutants will be identified. Inspection procedures, leak identification and response, and spill prevention and response will be reviewed. The chain of command will be described and reporting obligations will be explained and identified.

The Terminal Manager will implement measures to log training sessions and to document that employees have been trained. The Training Log should be maintained in **Appendix F** of this SWPPP.

3.1.9 Non-Stormwater Discharges (MSGP Section 2.1.2.9)

No discharge of anything other than storm water – rain or melting snow – is authorized under this General Permit. There are a few limited exceptions such as fire hydrant flushing, or a restricted form of washdown. All oil and grease or other material like salt must have been removed by dry cleanup methods before any surface may be washed. No detergents or other chemicals may be used in any washing process.

If any employee observes a non-stormwater discharge at or leaving the property, it must be reported to the Site Manager immediately so that it can be identified and dealt with according to regulatory or other requirements.

3.1.10 Dust Generation & Suppression (MSGP Section 2.1.2.10)

Minimize dust by suspending loading and unloading operations in strong winds. Vehicles should operate in the terminal only at very slow speeds to minimize fugitive dust. The size of the terminal, with its relatively tight maneuvering room, is such that safety needs also mandate low vehicle speeds. Other measures may be implemented, but any misting or similar activity should not be so heavy as to cause drainage into any catch basin or to any off-site location.

3.1.11 Waste, Garbage, etc.

Solid waste, litter, and garbage must be picked up promptly from any surface area and placed in the dumpster. If a dumpster is used, it should be placed in a covered position or have a lid to prevent exposure to stormwater. If outside without a cover, a containment system around the dumpster should be established. The dumpster should be inspected for leaks, which should be repaired promptly. The dumpster should also be emptied by a licensed hauler on a regular schedule.

3.2 Numeric Effluent Limits (MSGP Section 2.1.3)

The regulated activities identified in the “Numeric Effluent” provisions of the General Permit (log spray down; phosphate fertilizer manufacturing; asphalt emulsion; cement pile storage; dewatering at crushed stone, sand, and gravel mining; waste landfilling; coal storage; airfield deicing) *do not take place at the Granite State Minerals marine terminal.*

3.3 Sector-Specific Non-Numeric Effluent Limits (Section 8)

Sector-specific requirements for Sector Q (Water Transportation) and Sector P (Land Transportation and Warehousing) are set forth in the General Permit at pages 172-175 for Sector Q and pages 169-171 for Sector P. Additional sector-specific inspection and monitoring requirements are set forth in sections below concerning those topics.

Discharges from vehicle/equipment/surface wash water, including tank cleaning operations are prohibited. Discharges from vessels including bilge and ballast water, sanitary wastes, pressure wash water, and cooling water are also prohibited. Such discharges must be authorized under a separate NPDES permit, discharged to a

sanitary sewer in accordance with applicable industrial pretreatment requirements, or recycled on-site. Training must be completed at least once per year and include the following topics (in addition to other topics relevant to the facility) in the training: used oil and spent solvent management; fueling procedures; general good housekeeping practices; proper painting procedures; and used battery management.

Good Housekeeping requirements are restated below. EPA's guidance for Sector P good housekeeping and stormwater management is contained in **Appendix P** to this SWPPP, and guidance for Sector Q is set forth in **Appendix Q**.

- **Minimize Exposure to leaking or leak-prone vehicles:** implement control measures such as the following, where determined to be feasible (list not exclusive): using of drip pans under vehicles/equipment; storing vehicles and equipment indoors; installing berms or dikes; using of absorbents; roofing or covering storage areas; and cleaning pavement surfaces to remove oil and grease.
- **Minimize exposure to fueling areas:** Where determined to be feasible: cover the fueling area. *This is most effectively addressed by all vehicle fueling taking place in a specified location with containment in place.* Use spill/overflow protection and cleanup equipment; minimize stormwater run-on/runoff to the fueling area; use dry cleanup methods.
- **Used oil, spent solvents, and similar materials:** Maintain the drums or vessels in which these are stored to avoid leaks or stormwater access. Plainly label all containers. Keep all containers inside the container inside the garage until they are removed by a licensed waste hauler. Use dry cleanup methods.
- **Vehicle and equipment maintenance:** where determined to be feasible (list not exclusive): perform maintenance activities in dry weather or under cover; use drip pans; keep an organized inventory of materials used in the shop; drain all parts of fluid prior to disposal; prohibit wet clean up practices if these practices would result in the discharge of pollutants to stormwater drainage systems; use dry cleanup methods.

3.4 State-Specific Requirements (MSGP Section 9)

New Hampshire requires that permittees consider opportunities for on-site infiltration of stormwater. As discussed above, the terminal should not have any

capacity for infiltration of stormwater. For salt storage, and in light of the fact that a hard surface is required for operations, and the fact that in the past fill materials were not monitored as strictly as they are today, a hard surface without infiltration should be maintained.

3.5 Water Quality Effluent Limits and Standards

Section 303(d) of the Clean Water Act requires each state to submit a list of impaired waters to the US EPA every two years to identify surface waters that are impaired by pollutants, not expected to meet water quality standards within a reasonable time, and require the development of a Total Maximum Daily Load (TMDL) study.

Piscataqua River: The Piscataqua River is the surface water that receives stormwater from the facility. The river is tidal. *See **Figures 1, 2, and 4.***

The “Lower Picataqua River,” identified by NHDES as assessment unit NHEST600031001-02-02, is an impaired water within the scope of Appendix A of the General Permit. According to the *State of New Hampshire 2018 Section 303(d) Surface Water Quality List*, this segment of the river is Category 5. This means that this segment of the river is classified as being in need of a “Total Maximum Daily Load,” or “TMDL,” but does not yet have one. Listed impairments are:

- Estuarine Bioassessments
- Polychlorinated biphenyls
- Dioxin (including 2,3,7,8-TCDD)

US EPA Region I Guidance does not require monitoring for these pollutants. We have confirmed with Region I that no monitoring is required.

4.0 Schedules and Procedures

The General Permit, at pages 26–30, contains information about the scheduling and procedures associated with the activities described below:

4.1 Routine Facility Inspections (MSGP Section 3.1)

Store waste oils, antifreeze and other wastes temporarily in vendor-supplied containers. The facility’s licensed waste-hauling vendor should remove these

materials in accordance with calls by the facility to the licensed vendor or scheduled visits by the licensed vendor. The Pollution Prevention Team should send manifests and other records to the company's main office and to NH DES as required.

The General Permit, at Section 3.1.4 on page 27, requires a routine inspection at least once every calendar quarter (i.e. January to March / April to June / July to September / October to December) by Qualified Personnel including at least one member of the PPT. In order to encourage good housekeeping and compliance, Granite State will do a routine inspection at least once per month.

Areas that must be inspected include, but are not limited to,

- Waste storage area;
- All control measures;
- Discharge points;
- Locations where spills and leaks have occurred in the past;
- Locations where potential pollution sources are located;
- Storage areas for vehicles and equipment awaiting maintenance;
- Fueling areas;
- Vehicle and equipment maintenance areas;
- Material storage areas;
- Vehicle and equipment cleaning areas;
- All areas where materials, equipment, and activities are exposed to stormwater (assume that all areas of the salt storage area, salt unloading and loading areas, and truck scale and office area contain industrial activities or materials exposed to stormwater).

Inspections should include, but are not limited to, observation or looking out for:

- Industrial materials, residue, or trash that may come into contact with stormwater;
- Leaks or spills;
- Accurate recordkeeping;
- Proper labeling;
- Offsite tracking;
- Erosion;
- Non-authorized discharges;
- Control measures needing replacement, maintenance, or repair.

At least once every year, the routine inspection must take place in the rain or when snow is melting and a stormwater discharge is occurring.

The regular inspection, testing, maintenance, and repair of all control measures will occur as follows:

- **Monthly Inspections** will include the entire terminal. The inspector should conduct the inspection in accordance with the detailed monthly inspection forms.
- **Inspection Forms** should be filled in and signed at the time of the inspection. The inspector shall send one copy to the Main Office. Completed inspect forms are maintained in **Appendix E** of this SWPPP.
- **Repairs:** If inspections reveal the need for repairs, the facility should schedule them promptly and implement them as soon as feasible. The facility should maintain records of repairs in **Appendix E**.
- **Mandated Timeline:** The General Permit requires:

Immediately take all reasonable steps to prevent or minimize the discharge of pollutants. This includes cleaning up contaminated surfaces.
Make final repair or replacement as soon as feasible but must be no later than ... 14 days.
If two-week time frame is infeasible, complete no later than 45 days.
If repair or replacement will take longer than 45 days, you must NOTIFY EPA and document reasons for delay in this SWPPP.

4.2 Quarterly Visual Inspections (MSGP Section 3.2)

The General Permit requires the terminal to collect a storm water sample each calendar quarter: (1) January through March (2) April through June (3) July through September (4) October through December.

During the first 30 minutes of a storm that creates a discharge of storm water through the outfall, the inspector should collect a sample in a clean glass and examine the water in a well-lighted area. The inspector shall record observations on a form listing characteristics of water quality: color; odor; clarity; floating solids; settled solids; suspended solids; foam; oil sheen; and other obvious indicators of pollution. **When anticipated upgrades take place (pursuant to pending permit applications), the onshore infrastructure shall include a safe location to collect the quarterly visual sample.**

Any pollution conditions observable in the sample require investigation of the cause of the condition, **corrective action if needed**, and documentation of the corrective action.

A **qualifying storm must produce at least 0.1-inch of measurable rain**, and it must occur at least 72 hours (3 days) after the last measurable precipitation in the area. Along with the inspection form, the terminal must also make a record of the storm event. The record shall include date, duration of storm in hours, rainfall total in inches, time since the previous measurable storm. Weather data is available at this web site: www.wunderground.com

During one quarter of the year, the visual sample is supposed to be from snowmelt discharging through the outfall.

Company management or the Terminal Manager shall train and designate qualified inspectors.

A sample of the Quarterly Visual Monitoring Form is included in **Appendix F** of this SWPPP. Completed forms are to be submitted to the facility office, the company main office, and to **Appendix G** of this SWPPP.

Note that visual evidence of pollution in quarterly sample requires Corrective Action to address cause and minimize pollution. See Part 4 of the General Permit.

4.3 Monitoring (Section 4)

The General Permit requires “Indicator Monitoring,” “Benchmark Monitoring,” and “Impaired Water Monitoring” to be conducted consistent with the procedures and requirements outlined below.

4.3.1 Water Sampling Procedures

Each of these types of monitoring require the collection of water samples from the Marine Terminal’s stormwater discharges, and the submission of those samples for laboratory testing.

Care needs to be taken in the collection and shipment of samples:

- **Qualifying Storm:** A **measurable rain event of at least 0.1 inch of rain** that occurs no sooner than 72 hours (three days) after the last measurable rain event in the area. Storm data can usually be confirmed at the following web site: www.wunderground.com
- **Sampling Procedure:** *The inspector must have clean hands and dust-free garments. New, latex gloves for the hands are preferred. Do not contaminate the samples!* Using a clean glass or plastic container, the inspector shall collect samples of water from the discharge point within the first 30 minutes of observing a discharge or as soon as practicable after that. The inspector shall pour each sample into a separate laboratory sample bottle from the bottles provided by the laboratory. NOTE THAT DEPENDING UPON THE MATERIAL TO BE SAMPLED, EACH BOTTLE MAY HAVE A SEPARATE INSTRUCTION. BOTTLES SHOULD BE COMPLETELY FULL WITH NO AIR POCKET BEFORE BEING SEALED. The inspector shall place the samples in ice and deliver them promptly to the laboratory within acceptable time limits.

4.3.2 Indicator Monitoring (See pages 34-36 of the GP)

The facility is subject to two “Indicator Monitoring” requirements. These requirements are **“report only”**—the laboratory values must be reported to EPA—and do not automatically trigger a corrective action requirement. Data, however, should be reviewed to determine if pollution is occurring and if actions to minimize it or prevent it are in order. **Indicator Monitoring** requires the collection of water samples during a qualified storm event (more than a tenth of an inch of rain).

Because some industrial activities at the terminal are **Sector P** land transportation (trucks pickup salt and take it to public-safety agencies) and warehousing (storage of large inventories of road-salt to meet the “just in time” delivery requirements of public-safety agencies), the terminal must conduct quarterly “Indicator Monitoring” of certain analytes. The samples must be sent to a qualified laboratory and tested for the following analytes:

- **Total Suspended Solids** (TSS)
- **pH** (pH testing—determination of the acidic value of water—must be conducted on-site with an instrument or lab material and the data recorded)
- **Chemical Oxygen Demand** (COD) Note that COD testing is easily skewed when there is salt in the water sample. Since the terminal is situated in a

saltwater environment and is constantly handling salt, Indicator Samples should also be tested for “[Biological Oxygen Demand](#)” (BOD). This test is not as susceptible to error due to salt.

Because the activity at the terminal involves marine cargo handling (Sector Q), the General Permit requires indicator, report-only sampling and testing for [Polycyclic Aromatic Hydrocarbons \(PAHs\)](#) *two times per year* in the first and fourth year of the General Permit. Sixteen (16) individual PAHs (see Appendix A to 40 CFR Part 423) include: 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. Note that Sector P and Q facilities that pave, seal, or re-seal paved surfaces with [Coal-Tar Sealant](#) where industrial activities occur or must do quarterly indicator monitoring for 16 types of polyaromatic hydrocarbons or “PAHs.”

IN ORDER TO ELIMINATE THE SAFETY RISK, DO NOT USE COAL-TAR SEALANT ANYWHERE IN THE TERMINAL TO PAVE, SEAL, OR RE-SEAL PAVED SURFACES.

4.3.3 Quarterly Benchmark Monitoring

The Terminal is a Sector Q facility (water transportation and marine cargo handling). Quarterly benchmark testing is mandatory:

Analyte	Benchmark	Comments
Total Recoverable Aluminum	1,100 ug/L	Equivalent of 1.1 parts per million. Old benchmark was 0.750 ug/L
Total Recoverable Lead	210 ug/L	Equivalent of 0.21 parts per million. No change from previous permit. Saltwater based.
Total Recoverable Zinc	90 ug/L	Equivalent of 0.09 parts per million. No change from previous permit. Saltwater based.

[Electronic Submission to EPA:](#) Samples must be carefully collected (clean hands, clean gloves, clean equipment, valid sample kits) and sent under proper conditions (iced in lab kits) and chain-of-custody documentation to the laboratory.

Once results are received from the laboratory, they are submitted to US EPA on **electronic discharge monitoring reports** through EPA's NetDMR system.

A SAMPLE EXCEEDANCE OVER THE STATED BENCHMARK CAN TRIGGER MANDATORY ADDITIONAL IMPLEMENTATION MEASURES (AIM) UNDER THE NEW 2021 GENERAL PERMIT. THE TERMINAL MUST ADHERE TO AIM REQUIREMENTS.

4.3.3.1 Additional Implementation Measures (AIM)

Pages 46 to 54 of the General Permit have mandatory requirements for “Additional Implementation Measures” (AIMs) if the average quarterly benchmark sample exceeds the benchmark over the course of one year of sampling. Note that if a single quarter's result is 4 times the benchmark, AIMs need to be pursued immediately. The AIMs process is as follows:

ADDITIONAL IMPLEMENTATION MEASURES PHASED OPPORTUNITY TO DEMONSTRATE COMPLIANCE

BASELINE STATUS FOR BENCHMARKS

- A. Every site begins at **Baseline** after receiving Authorization to Discharge.
 - 1. Collect quarterly benchmark samples.
 - 2. If an analyte is 4 times the benchmark, proceed immediately to AIMs.
 - 3. If average of four quarters of results is at or below benchmark, remain in “Baseline” status.
 - 4. If average exceeds benchmark, proceed to AIMS Level 1 for that analyte.

STRIKE ONE: FIRST BENCHMARK EXCEEDANCE

- B. **AIMS LEVEL ONE:** Mandates the following steps:
1. Immediately review your SWPPP and your Storm Control Measures
 2. Determine if modifications are necessary:
 - a. Identify source of pollution more precisely
 - b. Determine if spills or leaks contributed to exceedance
 - c. Determine if any impact from non-stormwater discharge
 - d. Conduct a single comprehensive cleanup?
 - e. Change personnel and/or modify personnel conduct
 - f. Obtain and install new storm control measures
 - g. Increase inspections and take actions on observations
 3. Implement additional control measures using good engineering practices
 4. If you decide nothing more needs to be done, document in SWPPP and also document in Annual Report
 5. Numerous Documentation Requirements:
 - a. Within 24 hours of learning of the exceedance:
 - Document 5.1.1 conditions; 5.2.3 conditions (AIM 1); 5.2.4 conditions (AIM 2); 5.2.5 conditions (AIM 3).
 - Findings will need to be summarized in Annual Report:
 - Describe condition or triggering event. Many details needed if a spill or leak was involved.
 - State the date the condition or triggering event identified.
 - Describe immediate actions taken to minimize or prevent discharge of pollutions.
 - Signed and certified under penalty of law.
 - b. Documentation within 14 days of learning of the exceedance is also quite detailed. REFER to Section 5.3.3 on Page 54 of the General Permit.

POSSIBLE RETURN TO BASELINE IF FOUR GOOD BENCHMARK QUARTERS

- C. **CONTINUE QUARTERLY BENCHMARKING** while in AIMS Level One Status.
1. If you sample over four quarters and do not exceed benchmark status, the facility's status returns to Baseline.
 2. If you again exceed the benchmark, facility is in AIMS Level Two Status.

STRIKE TWO: ANOTHER EXCEEDANCE WITHIN FOUR QUARTER PERIOD

- D. **AIMS LEVEL TWO:** Mandates the following steps:
1. Immediately review your SWPPP and your Storm Control Measures. You must take actions, using good engineering practices, "beyond what you did in your AIM Level 1 responses:"
 2. Determine if modifications are necessary:
 - a. Identify source of pollution more precisely
 - b. Determine if spills or leaks contributed to exceedance
 - c. Determine if any impact from non-stormwater discharge
 - d. Conduct a single comprehensive cleanup?
 - e. Change personnel and/or modify personnel conduct
 - f. Obtain and install new storm control measures
 - g. Increase inspections and take actions on observations
 3. Implement additional control measures using good engineering practices
 4. If you decide nothing more needs to be done, document in SWPPP and also document in Annual Report
 5. Numerous Documentation Requirements similar to AIM Level 1. See those requirements and also requirements at Section 5.2.4 on pages 48-49 of the General Permit.

STILL POSSIBLE TO RETURN TO BASELINE IF FOUR GOOD BENCHMARK QUARTERS

- E. **CONTINUE QUARTERLY BENCHMARKING** while in AIMS Level Two Status.
1. If you sample over four quarters and do not exceed benchmark status, the facility's status returns to Baseline.
 2. If you again exceed the benchmark, facility is in AIMS Level Three Status.

**STRIKE THREE: ANOTHER EXCEEDANCE WITHIN FOUR-QUARTERS PERIOD
MORE AGGRESSIVE CONTROL MEASURES REQUIRED**

- F. **AIMS LEVEL THREE**: Mandates the following steps:
1. Install Structural Controls:
 - a. Permanent covers
 - b. Berms
 - c. Secondary Containment
 2. Install Treatment Controls:
 - a. Sand filters
 - b. Hydrodynamic separators
 - c. Oil-water separators
 - d. Retention ponds
 - e. Infiltration structures
 3. "The controls or treatment technologies 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 [of the permit]."
 4. Deadlines:
 - a. Schedule installation of measures within 14 days.
 - b. Actual installation within 60 days.
 - c. Outer limit 90 days if facility documents why sooner was infeasible.

**RISK FROM FURTHER EXCEEDANCES:
EPA MAY REQUIRE FACILITY TO APPLY FOR INDIVIDUAL PERMIT**

While in AIM Level 3 Status, the facility must continue its quarterly benchmark sampling and testing. If no exceedances are recorded for the next four quarters of testing, the facility may return to Baseline Status. If, however, more exceedances occur even after the installation and operation of the AIM Level 3 requirements, EPA may require the facility to apply for an individual permit.

Note that an individual permit is likely to impose effluent limitations rather than benchmarks. Such limitations, if exceeded, are a violation of law that exposes the facility to penalties, fines, and other measures.

4.3.4 Numeric Effluent Limitations Monitoring

The facility does not conduct activities that subject it to numeric effluent limitations monitoring.

4.3.5 Annual Impaired Water Monitoring

As mentioned in Section 2.5 of this SWPPP, the United States Environmental Protection Agency (“EPA”) and the New Hampshire DES classify the Lower Piscataqua River as an “Impaired Water.” The “Lower Picataqua River,” identified by NHDES as assessment unit NHEST600031001-02-02, is an impaired water within the scope of Appendix A. According to the *State of New Hampshire 2018 Section 303(d) Surface Water Quality List*, this segment of the river is Category 5. This means that this segment of the river is classified as being in need of a “Total Maximum Daily Load,” or “TMDL,” but does not yet have one. Listed impairments are:

- Estuarine Bioassessments
- Polychlorinated biphenyls
- Dioxin (including 2,3,7,8-TCDD)

US EPA Region I Guidance does not require monitoring for these pollutants. We have confirmed with Region I that no monitoring is required.

4.3.6 Reporting Results

Results for “Indicator Monitoring” and “Quarterly Benchmarking” must be submitted electronically through EPA’s NetDMR system. The Terminal Manager should coordinate with Greg Coppola and Joe McNamee to make timely filings and – if needed – implement corrective actions or additional implementation measures.

4.4 Spill Prevention and Response Procedures

The Terminal Manager or a trainer from another office will review spill prevention and response procedures in safety reviews and training sessions with terminal employees. The Terminal Manager, supported by Pollution Prevention Team members, will normally conduct the safety/training session, and employees will be required to log their attendance. *See Appendix F* to this SWPPP.

- **Location of Spill Control Material:** Training shall include review of the location of the spill control materials.
- **Deployment of Spill Control Material:** Training shall include review of the deployment of the spill control material. In the discretion of the Terminal Manager, employees shall participate in deployment drills.

Reportable Spills: Employees must report all spills or releases immediately to the Terminal Manager or to the senior staff person on site at the time. The Terminal Manager or the senior staff member will determine if the spill is reportable to government authorities and take appropriate steps to notify the correct agencies. The Terminal Manager or senior staff person will also log the report, supervise the spill response, and coordinate with and assist any responding agency. The Terminal Manager and/or other members of the SWPPP Team will include a check of spill-response equipment in the monthly inspection and order supplies as needed

4.5 Corrective Action Procedures *See pages 44-46 of General Permit.*

If you observe any of the following conditions, YOU MUST TAKE CORRECTIVE ACTION, REVIEW AND REVISE THE SWPPP AS APPROPRIATE, AND DOCUMENT YOUR ACTIONS:

- A spill, leak, or discharge of non-stormwater (*e.g.*, an oil spill)
- Violation of a Sector Q (marine cargo handling) or Sector P (land transportation or cargo storage) requirement
- Inadequate stormwater control measures resulting in contamination reaching the receiving waters.
- A control measure not properly operating or maintained, or not installed or not installed correctly.
- A VISUAL QUARTERLY SAMPLE with color, odor, floating solids settled solids, suspended solids, or foam.

4.5.1 Timing for Corrective Actions: Prompt Action Required!

“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.” *See page 45, Section 5.1.3.1 of the General Permit:*

- “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 Storm Control Measure to be installed.”

“Subsequent Actions” need to be taken within 14 days if feasible, and no later than 45 days after discovery. Any action extending beyond 45 days requires notification to EPA.

SECTION 5: Annual Report

The General Permit, *See* Section 7.4 at *page 66 of the General Permit*, requires the facility to submit an **Annual Report** by January 30 each calendar year. The Annual Report must contain:

- **Routine Inspection Summary:** The Pollution Prevention Team (“PPT”) shall summarize the observations and findings of the past year’s routine inspections.
- **Quarterly Visuals:** The PPT shall review and summarize the conditions observed in the quarterly visual inspections of the stormwater discharge.
- **Corrective Actions/Additional Implementation Measures:** The PPT must summarize all corrective actions or AIMs implemented during the prior year. Corrective Actions must be logged into **Appendix J** and AIMs documentation should be included in **Appendix J-1**.

SECTION 6: Eligibility Under Other Federal Laws

6.1 Endangered and Threatened Species & Critical Habitat

GSM is relying upon Criterion B in Appendix E of the MSGP to demonstrate its activities and stormwater discharges will not have a negative effect on any endangered species or critical habitat. GSM made a Criterion B filing in January 2020 and received no comments or objections. Research has not revealed any material changes in endangered or threatened species or in critical habitat in the facility’s action area since the early 2020 research and filing.

As a preliminary matter, in connection with applying for a wetlands permit from the New Hampshire Department of Environmental Services (NH DES), Tighe & Bonds requested consultation with the Fish and Wildlife Service. On July 9, 2019, the USF&W noted that the Northern Long-Eared Bat (*Myotis septentrionalis*) is listed as threatened in New Hampshire. The Service confirmed, however, there are no critical habitats within the Granite State action area.

NHB19-2156



Figure 8: Excerpt from Submittal Prepared by Tighe & Bond Concerning Endangered and Threatened Species and Critical Habitat

Tighe and Bond also consulted with the New Hampshire Natural Heritage Bureau about threatened or endangered species. Atlantic Sturgeon (*Acipenser oxyrinchus*) [threatened federal and state] and Shortnose Sturgeon (*Acipenser brevirostrum*) [endangered federal and state] are periodically present in Portsmouth Harbor and surrounding waters in 2016. The stormwater upgrade for which Tighe & Bond will seek permits will not have any impacts of concern. There are also extensive

materials about species and habitat set forth in the City of Portsmouth's MS4 application, which is available online.

More specifically for Criterion B purposes, the NH State Pier physically abuts the Granite State Facility on its upstream boundary. Fundamentally, both facilities share the same industrial shoreline and the same action area in the Piscataqua River. That action area is the segment of the river immediately downstream of the Sarah Mildred Long Bridge and immediately upstream of the Memorial Bridge. This bending segment of river is approximately 3,700 feet from bridge center point to bridge center point according to Google Earth.

The State Pier has had coverage under the MSGP since approximately 2015, and its cargo operations as described in its SWPPP have included, among other cargoes, the unloading of salt ships, the stockpiling of road salt on an area of the pier, and the distribution of road salt to public agencies from the pier by truck. The State Pier's SWPPP does not reveal any impacts to endangered species or critical habitat from the pier's cargo handling activities (including road salt). Accordingly, the Granite State facility can satisfy ESA requirements through Criterion B.

Recent extensive water quality and endangered species analysis related to a proposed partial replacement of State Pier infrastructure confirms the ongoing validity of the analysis. The only endangered species within USFW jurisdiction is the Northern Long-Eared Bat. The State Pier analysis contained the following information:

According to the USFWS Official Species List, northern long-eared bat (*Myotis septentrionalis*) may occur in this area of the state. The Natural Heritage Bureau did not report any known winter hibernacula or maternity roost trees in the vicinity of the project. NH Fish & Game also has not indicated that known hibernacula or maternity roost trees exist in the vicinity of the project. According to the US Fish & Wildlife Service, suitable summer habitat for northern long-eared bat consists of a variety of forested habitats. This species generally prefers closed canopy forest with an open understory. Potential roost trees include live trees or snags, at least 3 inches in diameter, with exfoliating bark, cracks, crevices, or cavities. Suitable habitat does not exist in or within 1,000 feet of the project area. The project will have no effect on northern long-eared bat (Exhibit I).

See Market Street Marine Terminal Functional Replacement Project, 15731 A000(909), Categorical Exclusion, July 2019, at page 12 (prepared by McFarland Johnson).

With respect to endangered or threatened marine species subject to NOAA jurisdiction, the analysis for the Categorical Exclusion report contained the following conclusions about Atlantic Sturgeon and Shortnose Sturgeon in Portsmouth Harbor:

In summary, there are no spawning sites [for Atlantic Sturgeon or Shortnose Sturgeon] within the action area based on existing habitat conditions and available data and overwintering is very unlikely. Potentially suitable foraging habitat may be present in the action area. Therefore, adult and sub-adult Atlantic and shortnose sturgeon may use the project area for foraging and are most likely to occur between April and November. With the implementation of minimization measures, including a time of year restriction that limits dredging and blasting activities to November 15 to March 15, it was determined that the proposed project is not likely to adversely affect shortnose sturgeon, Atlantic sturgeon, or Atlantic sturgeon critical habitat. Findings were described in detail in a Biological Assessment and NOAA concurred with the findings (Exhibit H). A blasting plan will be prepared prior to construction. No further consultation pursuant to Section 7 of the Endangered Species Act is required.

See Categorical Exclusion Report at 13. Notably, Granite State's operations currently do not involve dredging or blasting, so the restrictions mentioned are irrelevant.

6.2 Historic Properties

The facility satisfies Criterion B with respect to Historic Properties Screening. In 2016, the facility obtained permits from federal, state, and local agencies to implement repairs to the shoreline, specifically the rip-rap bank south of the pier and shipping berth. Permit review included review by the New Hampshire Division of Historical Resources. No historic resources exist at the facility, and no facility operations make a negative impact on historical resources.

SECTION 7: SWPPP Certification Signature Requirements

See Section 6.2.7 at page 61 of the General Permit and Appendix B-11.

Company Management:

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 whose 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.

Name: _____ Title: _____

Signature: _____ Date: _____

Terminal Management:

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 whose 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.

Name: _____ Title: _____

Signature: _____ Date: _____

End of Document, May 26, 2021. Appendices follow.

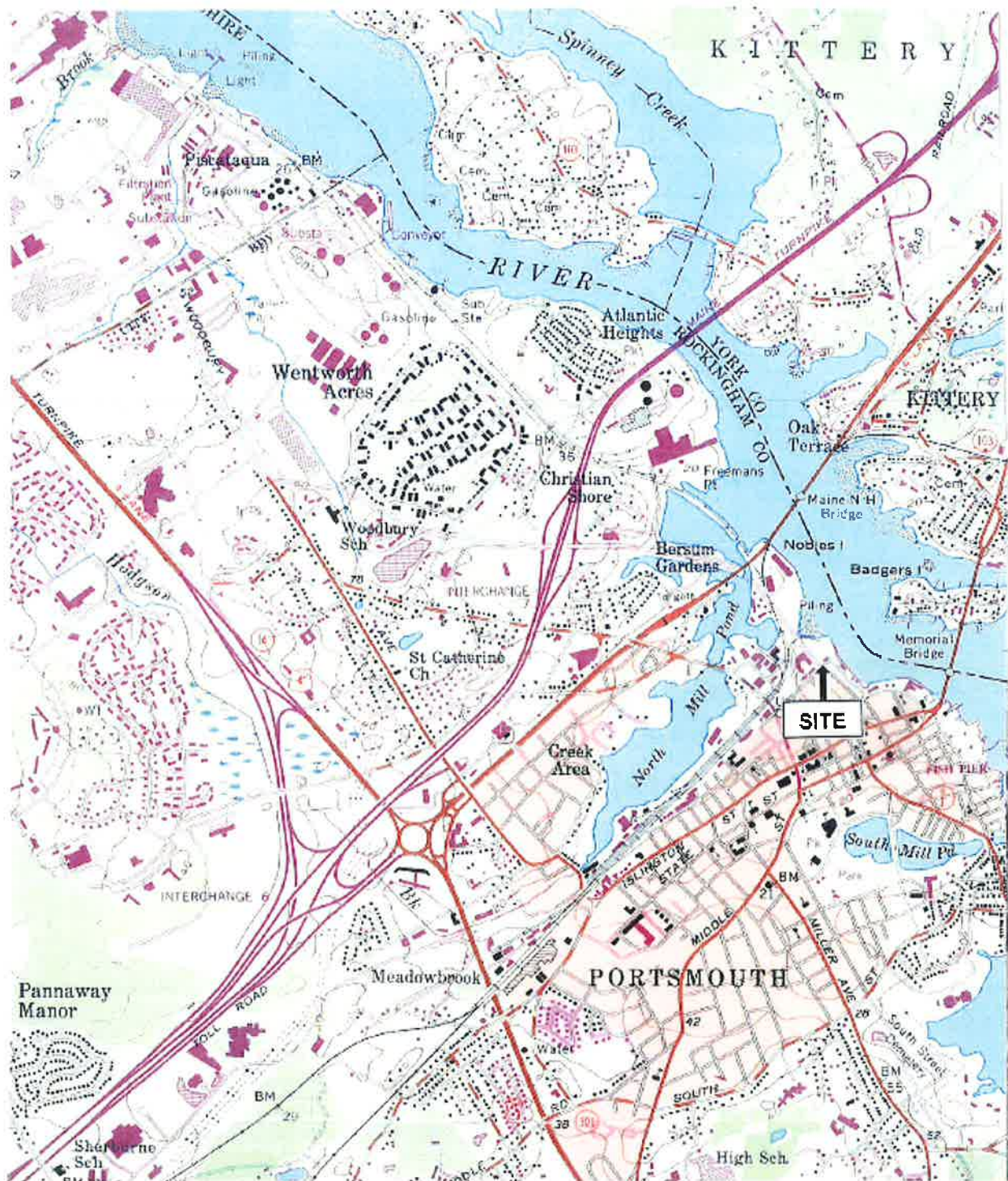
Sector-Specific Non-Numeric Effluent Limits

**Granite State Mineral
Stormwater Pollution Prevention Plan**

APPENDIX A: General Location

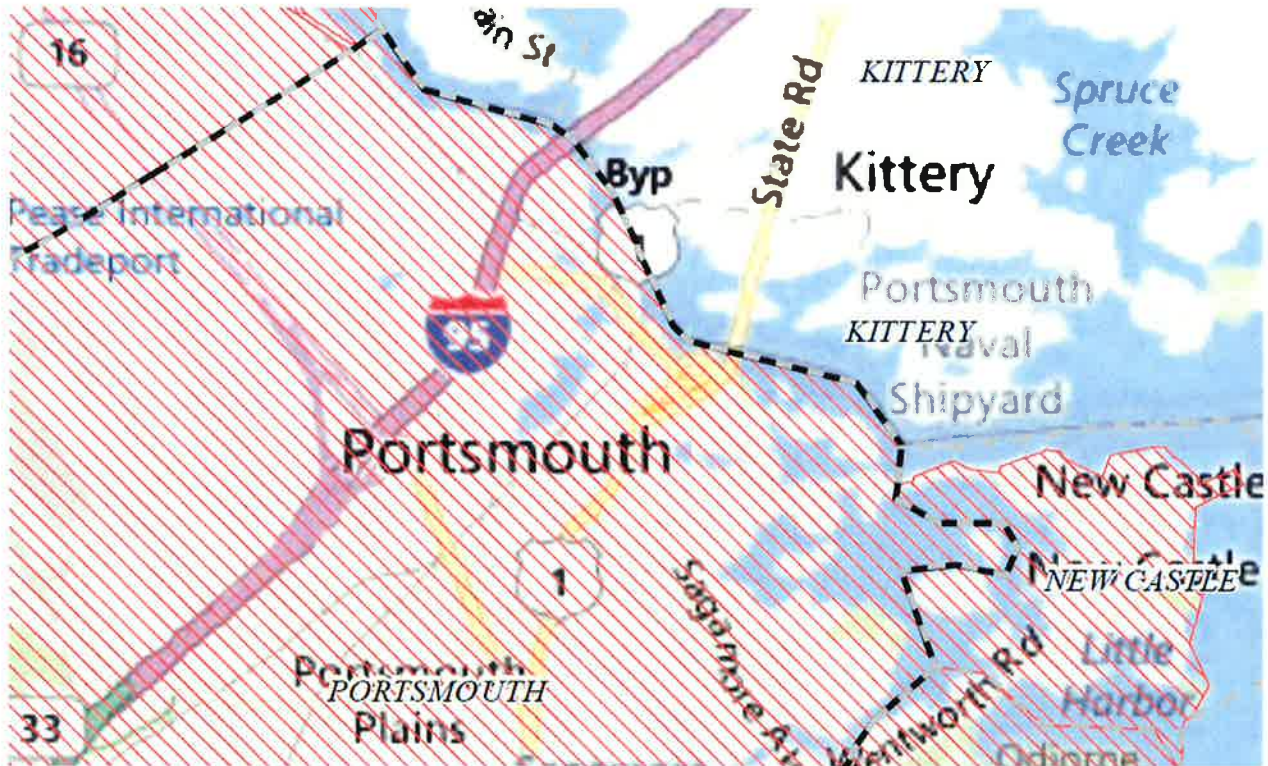
**General Location Map and Other Relevant
Maps, Charts or Information**

Appendix A: General Description of Site Location



Appendix A continued:

Information from City of Portsmouth online MSF materials. The Granite State Facility does not discharge stormwater into any MS4 (i.e., City-owned) drains or storm sewers. A combined sewer overflow passes under the Granite State terminal and discharges through the shoreline.



MS4 Coverage Map

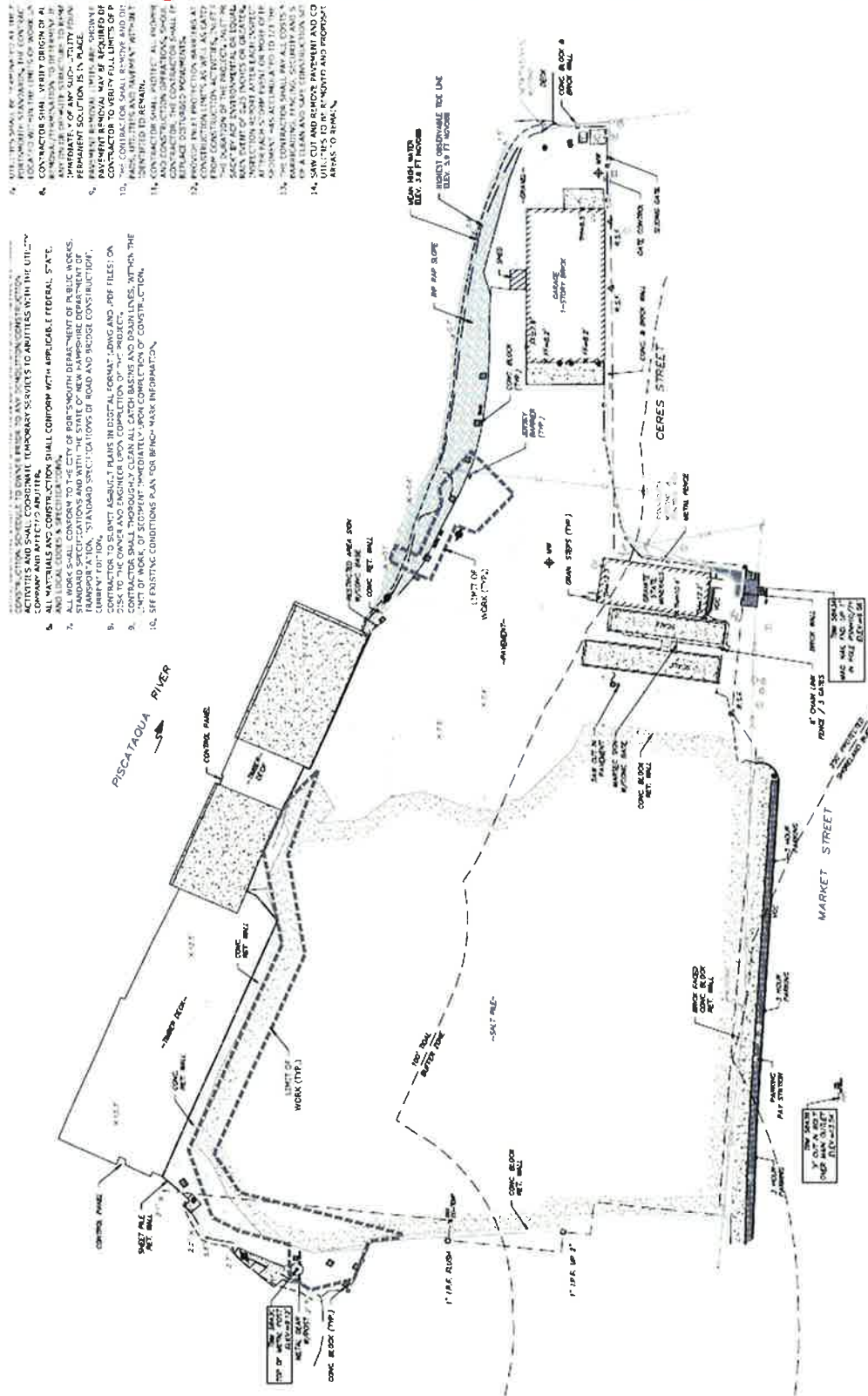
Waterbody that receives flow from the MS4 and segment ID if applicable	Number of outfalls into receiving water segment	Chloride	Chlorophyll-a	Dissolved Oxygen/DO Saturation	Nitrogen	Oil & Grease/ PAH	Phosphorus	Solids/ TSS/ Turbidity	E. coli	Enterococcus	Other pollutant(s) causing impairments
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Upper Sagamore Creek (NHEST600031001-03)	34	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Acenaphthylene, Aluminum, Arsenic, Benzo(a)pyrene (PAHs), Benzo(a)anthracene, Cadmium, Chrysene (C1-C4), Copper, Dibenzo(a,h)anthracene, Estuarine Bioassessments, Fluoranthene, Lead, Mercury, Nickel, Phenanthrene, Pyrene, Trans-Nonachlor, PCBs, Dioxin
Lower Sagamore Creek (NHEST600031001-04)	5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Estuarine Bioassessments, PCBs, Dioxin
Lower Piscataqua River - South (NHEST600031001-02-02)	30	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Estuarine Bioassessments, PCBs, Dioxin
Back Channel (NHEST600031001-05)	7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Estuarine Bioassessments, Light attenuation coefficient, PCBs, Dioxin
South Mill Pond (NHEST600031001-09)	13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	PCBs, Dioxin
North Mill Pond (NHEST600031001-10)	41	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	PCBs, Dioxin

Granite State Mineral Stormwater Pollution Prevention Plan

APPENDIX B / Site Map

Location for Site Map showing details as indicated in MSGP Section 5.2.2, page 31.

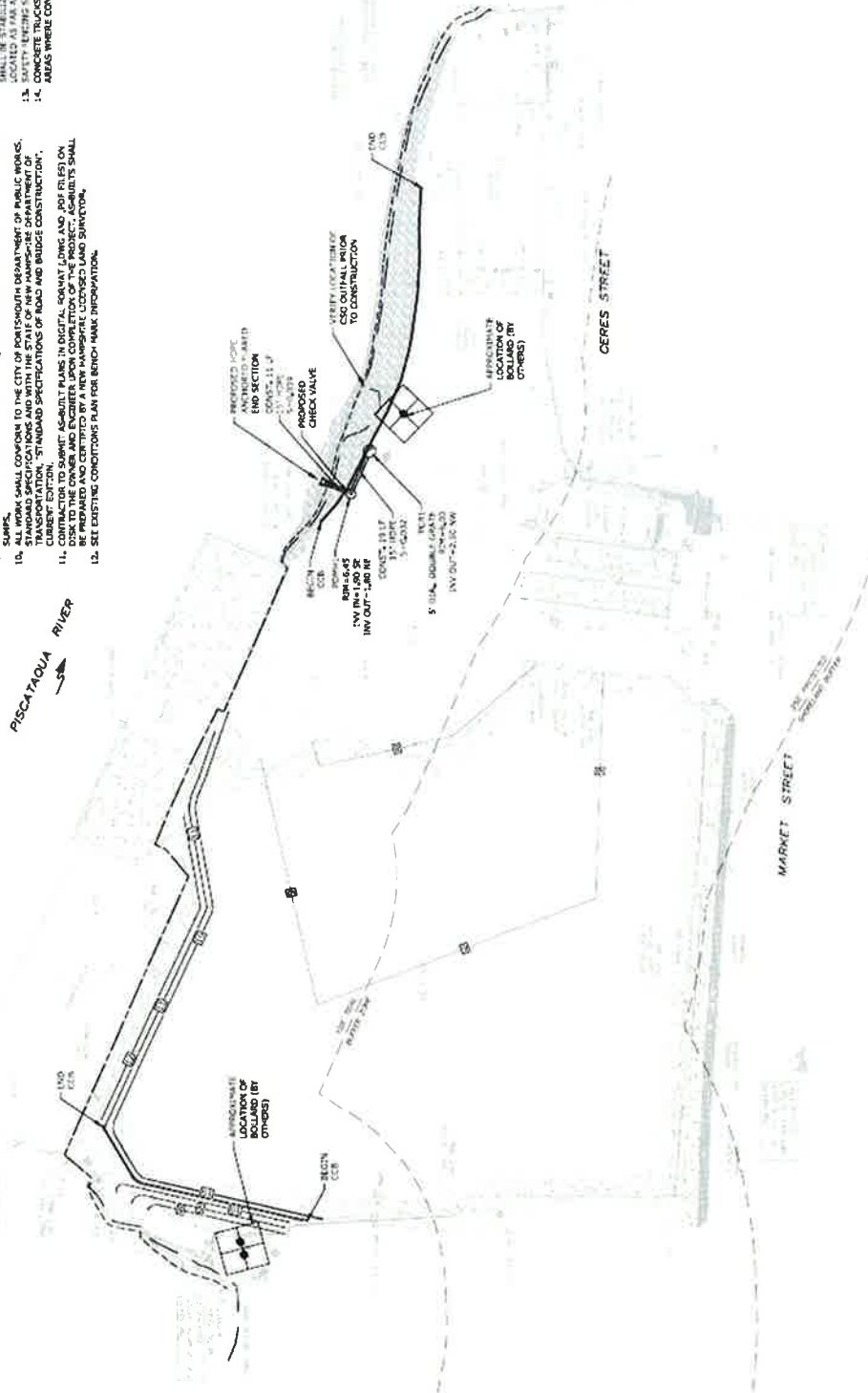
Existing Conditions Drawing July 2019



Grading Drainage etc. if Permits Obtained

9. CONTRACTOR SHALL BE RESPONSIBLE TO CONTAIN THE CONSTRUCTION PROCESS DUST CONTROL IN THE WORK AREA.
10. THE CONTRACTOR SHALL STORM AND PROTECT EXISTING AND ADJACENT PROPERTIES AND CONTROL DRAINAGE DURING CONSTRUCTION OF CONCRETE.
11. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS, TRANSPORTATION, STANDARD SPECIFICATIONS OF ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.
12. TEMPORARY SOIL EROSION CONTROL SHALL BE SUBMITTED AND APPROVED BY THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS, TRANSPORTATION, BEFORE CONSTRUCTION.
13. SAFETY FENCING SHALL BE PROVIDED AROUND ALL CONSTRUCTION AREAS.
14. CONCRETE TRUCKS WILL BE REQUIRED TO WASH AREAS WHERE CONCRETE HAS BEEN PLACED, IN ORDER TO PREVENT SPILLAGE.

6. LIMIT OF WORK OF SEGMENT IMMEDIATELY UPON COMPLETION OF CONSTRUCTION.
7. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS.
8. ALL DISTURBED AREAS NOT TO BE RAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SET TO FERTILIZER AND MULCH.
9. ALL STORM DRAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE INHOOF STANDARD SPECIFICATIONS OF ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.
10. ALL REPOSED CATCH BASINS SHALL BE EQUIPPED WITH OIL/GAS SEPARATOR HOODS AND 4" SUMP.
11. ALL WORK SHALL COMPLY TO THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS, TRANSPORTATION, STANDARD SPECIFICATIONS OF ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.
12. SEE EXISTING CONDITIONS PLAN FOR BENCH MARK INFORMATION.



**Granite State Mineral
Stormwater Pollution Prevention Plan**

APPENDIX C / Notice of Intent

Insert as-filed copy here.

**Granite State Mineral
Stormwater Pollution Prevention Plan**

**APPENDIX D
Inspection Report for
Unauthorized Non-Stormwater
Discharges**

Unauthorized Non-Stormwater Discharge Inspection Report

General Information			
Facility Name	Granite State Minerals		
NPDES Tracking No.	NH055007		
Date of Inspection	5-25-2021	Start/End Time	7:25am - 7:52am
Inspector's Name(s)	Justin Sunderland		
Inspector's Title(s)	Foreman		
Inspector's Contact Information	(603) 755-1456		
Inspector's Qualifications	Privacy Contact		
Weather Information			
Weather at time of this inspection?			
<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snow <input type="checkbox"/> High Winds <input type="checkbox"/> Other: Temperature: 55°			
Have any previously unidentified discharges of pollutants occurred since the last inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:			
Are there any discharges occurring at the time of inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:			

Structural Control Measures: Recommend listing the structural stormwater control measures identified in the facility's SWPPP on your site map and list them below before conducting inspection.

Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Maintenance or Corrective Action Needed and Notes
Catch Basin 1:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	In Planning Process
Sediment Sacks	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
Containment walls and berms Key Utilities	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
Stormwater Treatment Units	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	In Planning Process
Stormceptor	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	In Planning Process
(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	

Areas of Industrial Materials or Activities Exposed to Stormwater

Below are some general areas that should be assessed during routine inspections. Identify if maintenance or corrective action is needed.

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective and operating)?	Maintenance or Corrective Action Needed and Notes
1	Material Loading/Unloading and Storage Areas	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	No Salt stored on Terminal at this time area swept clean
2	Equipment Operations and maintenance areas	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
3	Fueling Areas (Amount of lubrication)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Area clean free of oil residue
4	Outdoor vehicle and equipment washing areas (Any Potential Chemical Runoff)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5	Waste Handling/Disposal Areas (Dumpster Lids Secured when not in use)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Dumpster lids closed area clean
6	Erodible Areas/Construction (Source of runoff)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
7	Any Visible Non-Stormwater Connections To Water	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	N.A.
9	Dust Generation and Vehicle Tracking Leading Offsite	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	No Offsite Tracking
10	Salt Storage Piles or Piles Containing Salt	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	No Salt stored on Terminal at this time

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective and operating)?	Maintenance or Corrective Action Needed and Notes
11	Garage: Doors Closed, when practical, and ground is swept of any potential pollutants	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Doors closed access points to garage swept and clean
12	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
13	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Discharge Points

At discharge points, describe any evidence of, or the potential for, pollutants entering the drainage system. Also describe observations regarding the physical condition of and around all outfalls, including any Treatment Units, as well as any evidence of pollutants in discharges and/or the receiving water. Identify if any corrective action is needed.

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 permit requirements:

Notes

Use this space for any additional notes or observations from the 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 submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Print name and title: Justin Sandick Foreman

Signature: [Signature] Date: 5-25-2021 Time: 7:52 AM

**Granite State Mineral
Stormwater Pollution Prevention Plan**

**APPENDIX E
Monthly Routine Inspection
Reports And Repairs**

Insert Here as Prepared and Filed

Monthly Inspection Checklist

Inspection should be conducted with site map that labels all control measures on site and Checklist Guide.

General Information			
Facility Name	Granite State Minerals		
NPDES Tracking No.			
Date of Inspection		Start/End Time	
Inspector's Name(s)			
Inspector's Title(s)			
Weather Information			
Weather at time of this inspection? <input type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snow <input type="checkbox"/> High Winds <input type="checkbox"/> Other: Temperature:			

Areas of Industrial Materials or Activities Exposed to Stormwater

Below are general areas that should be assessed during routine inspections. Observe all areas for leaks or spills. Note the status of all BMPs in the area and housekeeping efforts as defined in the SWPPP. Finally, Identify if maintenance or corrective actions are needed

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective and operating)?	Maintenance or Corrective Action Needed and Notes
1	Areas where industrial materials or activities occur (Any residue)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2	Any offsite tracking of industrial or waste materials, where vehicles enter/exit site	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
3	Status of all Control measures/BMPS	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	Any visible non-authorized discharge occurring on site?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	Salt Storage Piles or Piles Containing Salt	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	Waste Handling/Disposal Areas (Dumpster Lids Secured when not in use)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	Erodible Areas/Construction (Source of runoff)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	All Discharge Points Storm drains, outfalls, and Any Visible Non-Stormwater Connections To Water	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
9	Areas where spills and leaks have occurred in the past three years, if any	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	

CERTIFICATION STATEMENT

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

Print name and title: _____

Signature: _____ **Date:** _____ **Time** _____

**Granite State Mineral
Stormwater Pollution Prevention Plan**

**APPENDIX F
Log of Employee Training
And Attendance**

Employee Stormwater Pollution Prevention Training Log

It is the responsibility of the Stormwater Pollution Prevention Team to maintain organized up-to-date records of all employee stormwater and environmental safety records. These records must be kept on-site and be easily accessible should an EPA inspector arrives at the facility.

Site Name:
Site Location:

Instructor's Name(s):
Instructor's Title(s):

Course Length (Hours): _____ **Date:** _____

Stormwater Training Topic:

- | | | |
|---|---|--|
| <input type="checkbox"/> Contents of SWPPP | <input type="checkbox"/> Location of Controls On-Site | <input type="checkbox"/> Proper Housekeeping and |
| <input type="checkbox"/> Identifying Pollutants | <input type="checkbox"/> Emergency Spill Response | Maintenance Practices |
| <input type="checkbox"/> BMP's | <input type="checkbox"/> Techniques | <input type="checkbox"/> All the Above |

Describe Training Objectives: _____

No.	Name of Employee	Employee Signature
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
23		
24		
25		
26		
27		
28		
29		
30		

**Granite State Mineral
Stormwater Pollution Prevention Plan**

**APPENDIX G
Quarterly Visual Monitoring
Inspection Documentation**

Insert here as prepared and filed.

MSGP Quarterly Visual Assessment Form

(Complete a separate form for each outfall)

Name of Facility:

NPDES Tracking No.

Date and Time:

Outfall Name:

Outfall Location:

Person(s)/Title(s) collecting sample:

Signature:

Person(s)/Title(s) performing visual assessment:

Signature:

Duration of Storm (hours):

Date & Time Sample Collected:

Date & Time Sample Examined:

Rainfall Total (Inches):

If sample not taken within first 30 minutes, explain why.

Nature of Discharge: ☐ Rainfall ☐ Snowmelt

If rainfall: Rainfall Amount:

Previous Storm Ended > 72 hours ☐ Yes ☐ No* (explain):
Before Start of This Storm?

Pollutants Observed

Color ☐ None ☐ Other Describe: _____

Odor ☐ None ☐ Musty ☐ Sewage ☐ Sulfur ☐ Sour ☐ Petroleum/Gas
☐ Solvents ☐ Other Describe: _____

Clarity ☐ Clear ☐ Slightly Cloudy ☐ Cloudy ☐ Opaque ☐ Other

Floating Solids ☐ No ☐ Yes Describe: _____

Settled Solids** ☐ No ☐ Yes Describe: _____

Suspended Solids ☐ No ☐ Yes Describe: _____

Foam (gently shake sample) ☐ No ☐ Yes Describe: _____

Oil Sheen ☐ None ☐ Flecks ☐ Globs ☐ Sheen ☐ Slick
☐ Other Describe: _____

Other Obvious Indicators of ☐ No ☐ Yes Describe: _____

Stormwater Pollution

* The 72-hour interval can be waived when the previous storm did not yield a measurable discharge or if you are able to document (attach applicable documentation) that less than a 72-hour interval is representative of local storm events during the sampling period.

** Observe for settled solids after allowing the sample to sit for approximately one-half hour.

****Identify probably 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 Subpart 11 Appendix B 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 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.

A. Name:

B. Title:

C. Signature:

D. Date Signed:

Guidelines

The visual assessment must be made:

- Of a sample in a clean, clear 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 you must document why it was not possible to take samples within the first 30 minutes. **In the case of snowmelt**, samples must be taken during a period with a measurable discharge from your site; and
- For storm events, on discharges that **occur at least 72 hours (3 days) from the previous discharge**. The 72-hour (3-day) storm interval does not apply if you document that less than a 72-hour (3-day) interval is representative for local storm events during the sampling period.

Must visually inspect for the following water quality characteristics:

- | | | |
|-------------------|--------------------|----------------------------|
| • Color | • Settled solids | • Other obvious indicators |
| • Odor | • Suspended solids | of stormwater pollution |
| • Clarity | • Foam | |
| • Floating solids | • Oil sheen | |

Not required to submit your visual assessment findings to EPA, unless specifically requested to do so.

A **qualifying storm** must produce at least 0.1-inch of measurable rain, and it must occur at least 72 hours (3 days) after the last measurable precipitation

For Areas Subject to Snow: at least one quarterly visual assessment must capture snowmelt discharge

Substantially Identical Outfalls: If your facility has two or more outfalls that you believe discharge substantially identical effluents, you may conduct quarterly visual assessments of the discharge at just one of the outfalls and report that the results also apply to the substantially identical outfall(s) provided that you perform visual assessments on a rotating basis of each substantially identical outfall throughout the period of your coverage under this permit.

**Granite State Mineral
Stormwater Pollution Prevention Plan**

**APPENDIX H
Stormwater Monitoring
Data (Lab Results)**

Insert here as accumulated.

**Granite State Mineral
Stormwater Pollution Prevention Plan**

**APPENDIX I
EPA Impaired Water Report
Annual Lab Data**

Insert here as accumulated.

**Granite State Mineral
Stormwater Pollution Prevention Plan**

**APPENDIX J
Corrective Action Log**

Also insert documentation here.

Corrective Actions & Repairs Log

Site Name:

Site Location:

SWPPP Contact:[illegible]

**Granite State Mineral
Stormwater Pollution Prevention Plan**

**APPENDIX J-1
Additional Implementation
Measures**

Insert here as prepared and filed.

**Granite State Mineral
Stormwater Pollution Prevention Plan**

**APPENDIX K
Comprehensive Site Inspection
Documentation**

Insert here as prepared and filed.

**Granite State Mineral
Stormwater Pollution Prevention Plan**

**APPENDIX L
Leaks and Spills Log**

Insert here as recorded and documented.

SPILLS AND LEAKS LOG

Facility Name: _____ NPDES Permit Number: _____

Date (mm/dd/ yy)	Spill or Leak	Location (as indicated on a site map)	Type of Material & Quantity	Source (if known)	Reason	Amount of Material Recovered	List of Preventative Measures Taken	Initials

[illegible]

Date (mm/dd/yy)	Spill or Leak	Location (as indicated on a site map)	Type of Material & Quantity	Source (if known)	Reason	Amount of Material Recovered	List of Preventative Measures Taken	Initials

Instructions: Use this page to enter any important notes about the spills from the previous sheets.

Date of spill or leak (mm/dd/yy)	Notes
	Example: All employees have been instructed on the importance of securing container lids. Employees were also instructed to double-check that container lids are secured before proceeding with applications.

**Granite State Mineral
Stormwater Pollution Prevention Plan**

**APPENDIX M
Endangered Species
Documentation**

- B. If your facility is likely to be eligible under criterion B, D or E, you may skip ahead to the applicable criterion's requirements to determine if you are eligible. If after completing the relevant section you find that your facility does not in fact meet criteria 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.
- C. If your facility is not likely to be eligible under criterion B, D or E, you may proceed directly to [Step 2](#).

Criterion B Eligibility Requirements

If your industrial activities were already addressed in another operator's valid certification of eligibility under the current 2015 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 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. List any measures here (or enter "N/A" if none exist):

The State Pier SWPPP does not contain measures specific to the protection of endangered species or critical habitat in order to achieve valid certification of eligibility.

- **If all 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 by the other operator's certification. 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 been 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 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 been 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 federally listed threatened or endangered species and all designated critical habitat in your action area. The result of this consultation must be either:

required. A pre-application meeting was held with the NHDES Alteration of Terrain Program on July 30, 2018 (Exhibit B).

Shoreside work will include grading and paving to direct stormwater to catch basins. The proposed stormwater system is designed to match the existing stormwater treatment devices located on the site. The northern area will be graded to direct stormwater to two new catch basins with double inlet grates for collection. The catch basins will drain to two new offline 6-foot diameter hydrodynamic vortex separators to provide stormwater treatment before discharging through headwalls into the Piscataqua River. The existing drainage on the barge wharf and surrounding areas will remain. The southern area will reestablish drainage with two new catch basins directing stormwater into the existing hydrodynamic vortex separator. Stormwater treatment areas are not proposed given the limited space available and also due to concerns with contaminated soils.

Because the project requires an Individual Section 10/404 permit from the ACOE, it will also require an Individual Section 401 Water Quality Certification (WQC) from NHDES. According to Section 401 of the Clean Water Act, any applicant for a federal permit to conduct any activity including, but not limited to, the construction or operation of facilities that may result in any discharge into navigable waters, shall provide the licensing or permitting agency with a certification from the state that the discharge will meet state surface water quality standards. The WQC will be obtained from the NHDES Watershed Management Bureau during Final Design.

Groundwater

The project is not located within any protected groundwater resource areas. Standard precautions will be taken during construction to avoid impacts to groundwater from fuel spills and other contaminants. See the Hazardous Materials/Contaminated Properties section for more information.

Construction Water Quality

Stormwater discharges from construction activities resulting in earth disturbance greater than one acre in size must obtain coverage under an EPA National Pollutant Discharge Elimination System (NPDES) permit. In New Hampshire, such discharges are generally permitted under the Construction General Permit (CGP). Coverage under the CGP requires submittal of a Notice of Intent (NOI) and preparation of a Storm Water Pollution Prevention Plan (SWPPP). Since the proposed project is expected to disturb more than one acre of land, an NOI and SWPPP will be required prior to the start of construction.

Coastal Zone

The Coastal Zone Management Act of 1972 established a formal review process, known as federal consistency, for all federal activities located in the coastal zone when it is reasonably foreseeable that they will affect any land or water use or natural resource within a State's coastal zone. In New Hampshire, the federal consistency review is coordinated by the NH Coastal Program. Portsmouth is one of seventeen NH towns located within the State's designated coastal zone. Activities that require federal consistency review include those that are undertaken by Federal agencies, receive non-programmatic federal permits, or receive federal financial assistance. The proposed project has FHWA funding and will require an Individual Section 10/404 Permit from the US Army Corps of Engineers. Therefore, the project is subject to federal consistency review, the purpose of which is to ensure that a proposed activity is conducted in a manner that is consistent with the enforceable policies of the NH Coastal Program (Exhibit J). The consistency review will be completed during Final Design.

Protected Species

The New Hampshire Natural Heritage Bureau (NHB) reported known records of peregrine falcon (State threatened), American eel (State species of concern), Atlantic sturgeon (State and Federally threatened), and shortnose sturgeon (State and Federally endangered) (Exhibit D).

The NOAA Section 7 Web Mapper was accessed most recently on May 14, 2019 (Exhibit H) to determine if the potential Action Area overlapped with federally listed species under the jurisdiction of the National Oceanic and Atmospheric Administration. The mapper confirmed that the project is within the range of Atlantic and shortnose sturgeon. The project is also located within federally designated critical habitat for Atlantic sturgeon. The anticipated offshore route that will be taken to transport dredged material to the Cape Arundel Disposal Site is located within the range of four listed sea turtles, fin whale, and North Atlantic right whale, and within designated critical habitat for North Atlantic right whale.

The US Fish & Wildlife Service (USFWS) *Information for Planning and Conservation System* (IPaC) web tool was utilized to request an official species list for federally listed species or critical habitats under USFWS jurisdiction that could occur in the project area (Exhibit C). According to the official species list, the northern long-eared bat may occur in this area.

Section 7 of the US Endangered Species Act (ESA) requires Federal agencies to work to conserve federally endangered and threatened species and to avoid jeopardizing the existence of any listed species. In addition, the project must comply with the Bald and Golden Eagle Protection Act.

Species of concern are described in more detail below, and consultation completed to date is summarized.

Peregrine Falcon

The NHB response dated June 14, 2018 identified peregrine falcon, state threatened, in the vicinity of the project area at two separate locations. Peregrine falcons have nested on the I-95 bridge, north of the project area, since 2007 and on the Memorial Bridge, south of the project area, in 2006. This species has not been documented on the Sarah Mildred Long Bridge, located adjacent to the Port of New Hampshire.

NH Fish & Game was contacted for input on potential concerns regarding peregrine falcon in the project area. No impacts to this species are anticipated (Exhibit E).

Northern Long-Eared Bat

According to the USFWS Official Species List, northern long-eared bat (*Myotis septentrionalis*) may occur in this area of the state. The Natural Heritage Bureau did not report any known winter hibernacula or maternity roost trees in the vicinity of the project. NH Fish & Game also has not indicated that known hibernacula or maternity roost trees exist in the vicinity of the project. According to the US Fish & Wildlife Service, suitable summer habitat for northern long-eared bat consists of a variety of forested habitats. This species generally prefers closed canopy forest with an open understory. Potential roost trees include live trees or snags, at least 3 inches in diameter, with exfoliating bark, cracks, crevices, or cavities. Suitable habitat does not exist in or within 1,000 feet of the project area. The project will have no effect on northern long-eared bat (Exhibit I).

Atlantic and Shortnose Sturgeon

Shortnose sturgeon (*Acipenser brevirostrum*) occur in rivers and estuaries along the east coast of the U.S. and Canada. In the U.S., they are listed as endangered throughout their range. There are five Distinct Population Segments (DPSs) of Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) listed as threatened or endangered. Atlantic sturgeon originating from the New York Bight, Chesapeake Bay, South Atlantic and Carolina DPSs are listed as endangered; the Gulf of Maine DPS is listed as threatened. The marine range of all five DPSs extends along the Atlantic coast from Canada to Cape Canaveral, Florida. Atlantic sturgeon from any of the five DPSs may occur in the action area.

As part of a cooperative research program, the Department of the Navy has been maintaining an acoustic receiver array focused on the waters surrounding the Portsmouth Naval Shipyard, the mouth of the Piscataqua River, and the Great Bay Watershed since 2014. This data has demonstrated that shortnose sturgeon show a

predictable annual use of the Piscataqua River. Overall, the telemetry data collected to date suggest that shortnose sturgeon are largely absent from the Piscataqua River during the winter months and that only adult shortnose sturgeon may be present from April through November of any given year. A total of 16 tagged adult/subadult Atlantic sturgeon have been documented within the system since 2010. Seasonal visits spanned late-April to early November, with most observations occurring in summer and typically inhabiting the waters near the mouth of the Piscataqua River. No evidence of spawning currently exists within the Piscataqua River for either species.

In summary, there are no spawning sites within the action area based on existing habitat conditions and available data and overwintering is very unlikely. Potentially suitable foraging habitat may be present in the action area. Therefore, adult and sub-adult Atlantic and shortnose sturgeon may use the project area for foraging and are most likely to occur between April and November. With the implementation of minimization measures, including a time of year restriction that limits dredging and blasting activities to November 15 to March 15, it was determined that the proposed project is not likely to adversely affect shortnose sturgeon, Atlantic sturgeon, or Atlantic sturgeon critical habitat. Findings were described in detail in a Biological Assessment and NOAA concurred with the findings (Exhibit H). A blasting plan will be prepared prior to construction. No further consultation pursuant to Section 7 of the Endangered Species Act is required.

Sea Turtles

Four species of federally listed threatened or endangered sea turtles are found seasonally in the coastal waters of New Hampshire and Maine, including in the vicinity of the Cape Arundel Disposal Site and proposed transit route. In general, listed sea turtles are seasonally distributed in coastal U.S. Atlantic waters, migrating to and from habitats extending from Florida to New England, with overwintering concentrations in southern waters. As water temperatures rise in the spring, these turtles begin to migrate northward. As temperatures decline rapidly in the fall, turtles in northern waters begin their southward migration. Sea turtles are expected to be in the vicinity of the Cape Arundel Disposal Site in warmer months, typically June through October. The only portion of the action area within the range of listed sea turtles is the offshore transport and disposal of dredged material. Transport of dredged material will be completed by April, before sea turtles would be expected to be present. Further, the disposal site is at a depth that is deeper than what benthic foraging sea turtles would be expected to use. For these reasons, the proposed project will not impact listed sea turtles.

Whales

The North Atlantic right whale (*Eubalaena glacialis*) and fin whale (*Balaenoptera physalus*) are found seasonally in Gulf of Maine waters. These species may be present at the Cape Arundel Disposal Site and along the transit route. North Atlantic right whales have been documented in the Gulf of Maine from December through June, with relatively high numbers in January through May. The seasonal presence of right whales is thought to be closely associated to the seasonal presence of dense patches of their preferred copepod prey. Fin whales found off the eastern United States are centered along the 100-meter (328-foot) isobaths; however, sightings are spread out over shallower and deeper water, with their summer feeding range occurring mainly between 41°N and 51°N, from shore seaward to the 1,000-fathom (6,000 feet) contour.

Based on available information, foraging and overwintering adult and juvenile North Atlantic right whale and fin whale could occur in the vicinity of the transport route to the Cape Arundel Disposal Site.

The only project activity that will be located within the range of Atlantic right whale and fin whale, and within right whale critical habitat, is the transport of dredged material via a dredge scow. It is not anticipated that vessel traffic resulting from the proposed dredging will result in a meaningful increase in the number of vessels above background levels, nor is it anticipated that the dredge scow will be meaningfully different in speed, draft, or noise as compared with existing shipping traffic. For these reasons, it was determined that the proposed project is not likely to adversely affect Atlantic right whale, fin whale, or right whale critical habitat. Findings

were described in detail in a Biological Assessment and NOAA concurred with the findings (Exhibit H). No further consultation pursuant to Section 7 of the Endangered Species Act is required.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act prohibits the “take” of bald eagles and golden eagles, including their parts, nests, and eggs. The Act also prohibits impacts from human activities that result in nest abandonment or the interruption of normal breeding, feeding, or sheltering habits. Neither of these species was reported by the NHB, NH Fish and Game, or the USFWS as a potential concern in the project area. No evidence of eagle nests has been observed in or near the project area. The project as proposed is not expected to result in any impact to these species.

Essential Fish Habitat

The Magnuson-Stevens Fishery Conservation and Management Act requires the federal government to identify Essential Fish Habitat (EFH) and make conservation recommendations to agencies whose actions could damage it. Essential Fish Habitat is broadly defined as the waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. According to the National Marine Fisheries Service, the Piscataqua River contains EFH for 16 species. Based on habitat characteristics found at the project area, specifically temperatures, salinity, water depth, and substrate, suitable habitat is present for one or more life stages of 14 species. An EFH Assessment was prepared to demonstrate that, although the project will impact EFH, the impacts will not be substantial. This Assessment was submitted to the National Marine Fisheries Service (NMFS). The NMFS provided conservation recommendations that will be implemented as appropriate during final design and construction (Exhibit F).

Cultural Resources

The project has been reviewed with the NH State Historic Preservation Office (SHPO) and FHWA to locate and identify properties listed in or eligible for the National Register of Historic Places within the project area. There are no aboveground historic structures in the project area. The SHPO requested archaeological monitoring during construction of shoreside alterations within an area of archaeological sensitivity known as Area 3 (see Figure 4).

Effects on historic properties were determined by the FHWA, in consultation with NHDOT and SHPO, based on the Section 106 review process established by the National Historic Preservation Act of 1966 and outlined at 36 CFR 800.9. It has been determined that the proposed action will have no adverse effect on historic resources (Exhibit A).

Construction Impacts

Construction of this project will cause temporary inconvenience to users of the Port and temporary impacts to environmental resources. The following measures will be implemented to minimize or avoid impacts during construction:

- Construction of the proposed work will be completed in phases to allow the Port to remain operational. Port operations will be phased around construction activities through close coordination with the Contractor and PDA DPH, and vessels will be scheduled in advance of known wharf outages.
- Standard pollution prevention measures will be employed to assure all negative impacts are avoided and/or minimized to the maximum extent practicable.
- Construction of this project is anticipated to cause temporary increases in noise and dust levels within the project area. Standard measures will be employed to ensure such increases are minimized to the extent practicable and limited to the construction period.

Resources

ENDANGERED SPECIES 3

MIGRATORY BIRDS 13

FACILITIES

WETLANDS ✓

PRINT RESOURCE LIST

What's next?

Define a project at this location to evaluate potential impacts, get an official species list, and make species determinations.

DEFINE PROJECT

THUMBNAILS LIST

Mammals



Birds



Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Assistant Regional Director-Ecological Services
5600 American Blvd. West
Bloomington, MN 55437-1458
Phone: (612) 713-5350 Fax: (612) 713-5292



IPaC Record Locator: 407-19093588

November 14, 2019

Subject: Consistency letter for the 'Market Street Project Revised' project indicating that any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Dear Robert McDonnell:

The U.S. Fish and Wildlife Service (Service) received on November 14, 2019 your effects determination for the 'Market Street Project Revised' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. You indicated that no Federal agencies are involved in funding or authorizing this Action. This IPaC key assists users in determining whether a non-Federal action may cause “take”^[1] of the northern long-eared bat that is prohibited under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

Please report to our office any changes to the information about the Action that you entered into IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation.

If your Action proceeds as described and no additional information about the Action’s effects on species protected under the ESA becomes available, no further coordination with the Service is required with respect to the northern long-eared bat.

The IPaC-assisted determination for the northern long-eared bat **does not** apply to the following ESA-protected species that also may occur in your Action area:

- Red Knot, *Calidris canutus rufa* (Threatened)
- Roseate Tern, *Sterna dougallii dougallii* (Endangered)

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species listed above.

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

Market Street Project Revised

2. Description

The following description was provided for the project 'Market Street Project Revised':

Market Street, Portsmouth, NH. Site is 2.80 acres. Located in the industrial waterfront area of Portsmouth. Docks oceangoing ships, unloads bulk cargoes with shore cranes, stockpiles materials with loaders, Transfers materials to trucks that deliver materials to public safety agencies at state and local levels. Occasionally some cargoes loaded (e.g. oyster shells on barges for reef building). Timing is ongoing.

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/43.080146574318995N70.75990482341666W>

**Determination Key Result**

This non-Federal Action may affect the northern long-eared bat; however, any take of this species that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o).

Determination Key Description: Northern Long-eared Bat 4(d) Rule

This key was last updated in IPaC on **May 15, 2017**. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for non-Federal actions is to assist determinations as to whether proposed actions are excepted from take prohibitions under the northern long-eared bat 4(d) rule.

If a non-Federal action may cause prohibited take of northern long-eared bats or other ESA-listed animal species, we recommend that you coordinate with the Service.



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
<http://www.fws.gov/newengland>



In Reply Refer To:

November 14, 2019

Consultation Code: 05E1NE00-2020-SLI-0457

Event Code: 05E1NE00-2020-E-01288

Project Name: Market Street Project Revised

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office

70 Commercial Street, Suite 300
Concord, NH 03301-5094
(603) 223-2541

This project's location is within the jurisdiction of multiple offices. Expect additional species list documents from the following office, and expect that the species and critical habitats in each document reflect only those that fall in the office's jurisdiction:

Maine Ecological Services Field Office

P. O. Box A
East Orland, ME 04431
(207) 469-7300

Project Summary

Consultation Code: 05E1NE00-2020-SLI-0457

Event Code: 05E1NE00-2020-E-01288

Project Name: Market Street Project Revised

Project Type: TRANSPORTATION

Project Description: Market Street, Portsmouth, NH. Site is 2.80 acres. Located in the industrial waterfront area of Portsmouth. Docks oceangoing ships, unloads bulk cargoes with shore cranes, stockpiles materials with loaders, Transfers materials to trucks that deliver materials to public safety agencies at state and local levels. Occasionally some cargoes loaded (e.g. oyster shells on barges for reef building). Timing is ongoing.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/43.080146574318995N70.75990482341666W>



Counties: York, ME | Rockingham, NH

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Birds

NAME	STATUS
Red Knot <i>Calidris canutus rufa</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Roseate Tern <i>Sterna dougallii dougallii</i> Population: Northeast U.S. nesting population No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2083	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Maine Ecological Services Field Office

P. O. Box A

East Orland, ME 04431

Phone: (207) 469-7300 Fax: (207) 902-1588

<http://www.fws.gov/mainefieldoffice/index.html>



In Reply Refer To:

November 14, 2019

Consultation Code: 05E1ME00-2020-SLI-0147

Event Code: 05E1ME00-2020-E-00670

Project Name: Market Street Project Revised

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies the threatened, endangered, candidate, and proposed species and designated or proposed critical habitat that may occur within the boundary of your proposed project or may be affected by your proposed project. This species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC Web site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the Endangered Species Consultation Handbook at: <http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

This species list also identifies candidate species under review for listing and those species that the Service considers species of concern. Candidate species have no protection under the Act but are included for consideration because they could be listed prior to completion of your project. Species of concern are those taxa whose conservation status is of concern to the Service (i.e., species previously known as Category 2 candidates), but for which further information is needed.

If a proposed project may affect only candidate species or species of concern, you are not required to prepare a Biological Assessment or biological evaluation or to consult with the Service. However, the Service recommends minimizing effects to these species to prevent future conflicts. Therefore, if early evaluation indicates that a project will affect a candidate species or species of concern, you may wish to request technical assistance from this office to identify appropriate minimization measures.

Please be aware that bald and golden eagles are not protected under the Endangered Species Act but are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.). Projects affecting these species may require development of an eagle conservation plan: http://www.fws.gov/windenergy/eagle_guidance.html Information on the location of bald eagle nests in Maine can be found on the Maine Field Office Web site: <http://www.fws.gov/mainefieldoffice/Project%20review4.html>

Additionally, wind energy projects should follow the wind energy guidelines: <http://www.fws.gov/windenergy/> for minimizing impacts to migratory birds and bats. Projects may require development of an avian and bat protection plan.

Migratory birds are also a Service trust resource. Under the Migratory Bird Treaty Act, construction activities in grassland, wetland, stream, woodland, and other habitats that would result in the take of migratory birds, eggs, young, or active nests should be avoided. Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g.,

cellular, digital television, radio, and emergency broadcast) can be found at:

<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm> and at:

<http://www.towerkill.com>; and at:

<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Maine Ecological Services Field Office

P. O. Box A

East Orland, ME 04431

(207) 469-7300

This project's location is within the jurisdiction of multiple offices. Expect additional species list documents from the following office, and expect that the species and critical habitats in each document reflect only those that fall in the office's jurisdiction:

New England Ecological Services Field Office

70 Commercial Street, Suite 300

Concord, NH 03301-5094

(603) 223-2541

Project Summary

Consultation Code: 05E1ME00-2020-SLI-0147

Event Code: 05E1ME00-2020-E-00670

Project Name: Market Street Project Revised

Project Type: TRANSPORTATION

Project Description: Market Street, Portsmouth, NH. Site is 2.80 acres. Located in the industrial waterfront area of Portsmouth. Docks oceangoing ships, unloads bulk cargoes with shore cranes, stockpiles materials with loaders, Transfers materials to trucks that deliver materials to public safety agencies at state and local levels. Occasionally some cargoes loaded (e.g. oyster shells on barges for reef building). Timing is ongoing.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/43.080146574318995N70.75990482341666W>



Counties: York, ME | Rockingham, NH

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

**Granite State Mineral
Stormwater Pollution Prevention Plan**

**APPENDIX N
Historic Properties
Documentation**

Stable Growth Environmental LLC
P.O. Box 276, Barrington, NH 03825
(603) 767-8633

July 1, 2016

NH Division of Historical Resources
State Historic Preservation Office
Attention: Review & Compliance
19 Pillsbury Street, Concord, NH 03301-3570

Re: Request for Project Review – Narrative Description
Granite State Minerals – Tax Map 119, Lot 6
227 Market Street, Portsmouth, New Hampshire

Dear NHDHR Review & Compliance,

On behalf of the Applicant and Property Owner, this letter transmits the enclosed Request for Project Review by the NH Division of Historical Resources. The proposed project is a shoreline stabilization effort to stop an ongoing erosion problem at the referenced property. This will include the stabilization of 186 linear feet of shoreline bank, which has been steadily eroding into the Piscataqua River over many years. This project is necessary, because if the bank is left exposed it will continue to erode and there will be continued loss of property. The portion of this lot where this is occurring is extremely narrow and any additional loss of property will be detrimental to its viable use. Due to site constraints, and in order to limit impacts to the river system, concrete block mattresses are proposed to be installed over the steep majority of the bank (136 linear feet), which will be anchored to a reinforced concrete friction slab proposed within an existing paved driveway area. A smaller area to the southeast is less steep and is proposed to be stabilized with rip rap (50 linear feet). Additionally, one bollard that is located within the proposed concrete slab area is proposed to be replaced.

A commercial salt business has been operating on this property since 1959. Prior to that, going back to the early 20th century, the property was used as a bulk storage yard and transfer facility. The portion of the lot where the concrete friction slab will be installed is currently a paved driveway, vehicle turnaround and parking area. Two small buildings are on the lot, one contains the salt business offices and the other is an active garage where the business vehicles are maintained. Neither of these buildings will be affected by the proposed project. A DHR file review was conducted on March 3, 2016 and there were no historic properties revealed within or adjacent to the project area. The landowner is not aware of any known or suspected archeological resources within the project area. The site inspection also did not reveal any historic properties or archeological resources.

If there are any questions, or if additional information is requested or required, please contact me.

Sincerely,
STABLE GROWTH ENVIRONMENTAL LLC

Michael L. Parsont, CWS, CPESC
Environmental Consultant, Authorized Agent
mparsont@stablegrowth.net

Please mail the completed form and required material to:

New Hampshire Division of Historical Resources
State Historic Preservation Office
Attention: Review & Compliance
1 Pillsbury Street, Concord, NH 03301-3570

DHR Use Only

R&C # _____

Log In Date ____ / ____ / ____

Response Date ____ / ____ / ____

Sent Date ____ / ____ / ____

Request for Project Review by the New Hampshire Division of Historical Resources

☒ This is a new submittal

☐ This is additional information relating to DHR Review & Compliance (R&C) #:

GENERAL PROJECT INFORMATION

Project Title Granite State Minerals - Shoreline Stabilization

Project Location 227 Market Street

City/Town Portsmouth Tax Map 119 Lot # 006

NH State Plane - Feet Geographic Coordinates: Easting 1226883 Northing 212586
(See RPR Instructions and R&C FAQs for guidance.)

Lead Federal Agency and Contact (if applicable) Army Corps of Engineers
(Agency providing funds, licenses, or permits)

Permit Type and Permit or Job Reference # PGP

State Agency and Contact (if applicable) NHDES Wetlands Bureau

Permit Type and Permit or Job Reference # Wetlands

APPLICANT INFORMATION

Applicant Name Granite State Minerals, Inc.

Mailing Address 227 Market Street Phone Number

City Portsmouth State NH Zip 03801 Email

CONTACT PERSON TO RECEIVE RESPONSE

Name/Company Michael L. Parsont - Stable Growth Environmental LLC

Mailing Address P.O. Box 276 Phone Number 603-767-8633

City Barrington State NH Zip 03825 Email mparsont@stablegrowth.net

This form is updated periodically. Please download the current form at www.nh.gov/nhdhr/review. Please refer to the Request for Project Review Instructions for direction on completing this form. Submit one copy of this project review form for each project for which review is requested. Include a self-addressed stamped envelope to expedite review response. Project submissions will not be accepted via facsimile or e-mail. This form is required. Review request form must be complete for review to begin. Incomplete forms will be sent back to the applicant without comment. Please be aware that this form may only initiate consultation. For some projects, additional information will be needed to complete the Section 106 review. All items and supporting documentation submitted with a review request, including photographs and publications, will be retained by the DHR as part of its review records. Items to be kept confidential should be clearly identified. For questions regarding the DHR review process and the DHR's role in it, please visit our website at: www.nh.gov/nhdhr/review or contact the R&C Specialist at christina.st.louis@dcrr.nh.gov or 603.271.3558.

PROJECTS CANNOT BE PROCESSED WITHOUT THIS INFORMATION

Project Boundaries and Description

- ☒ Attach the relevant portion of a 7.5' USGS Map (photocopied or computer-generated) *indicating the defined project boundary. (See RPR Instructions and R&C FAQs for guidance.)*
- ☒ Attach a detailed narrative description of the proposed project.
- ☒ Attach a site plan. The site plan should include the project boundaries and areas of proposed excavation.
- ☒ Attach photos of the project area (overview of project location and area adjacent to project location, and specific areas of proposed impacts and disturbances.) *(Informative photo captions are requested.)*
- ☒ A DHR file review must be conducted to identify properties within or adjacent to the project area. Provide file review results in Table 1. *(Blank table forms are available on the DHR website.)*
File review conducted on 03/03/2016.

Architecture

Are there any buildings, structures (bridges, walls, culverts, etc.) objects, districts or landscapes within the project area? ☐ Yes ☒ No

If no, skip to Archaeology section. If yes, submit all of the following information:

Approximate age(s):

- ☐ Photographs of *each* resource or streetscape located within the project area, with captions, along with a mapped photo key. (Digital photographs are accepted. All photographs must be clear, crisp and focused.)
- ☐ If the project involves rehabilitation, demolition, additions, or alterations to existing buildings or structures, provide additional photographs showing detailed project work locations. (i.e. Detail photo of windows if window replacement is proposed.)

Archaeology

Does the proposed undertaking involve ground-disturbing activity? ☒ Yes ☐ No

If yes, submit all of the following information:

- ☒ Description of current and previous land use and disturbances.
- ☒ Available information concerning known or suspected archaeological resources within the project area (such as cellar holes, wells, foundations, dams, etc.)

Please note that for many projects an architectural and/or archaeological survey or other additional information may be needed to complete the Section 106 process.

DHR Comment/Finding Recommendation *This Space for Division of Historical Resources Use Only*

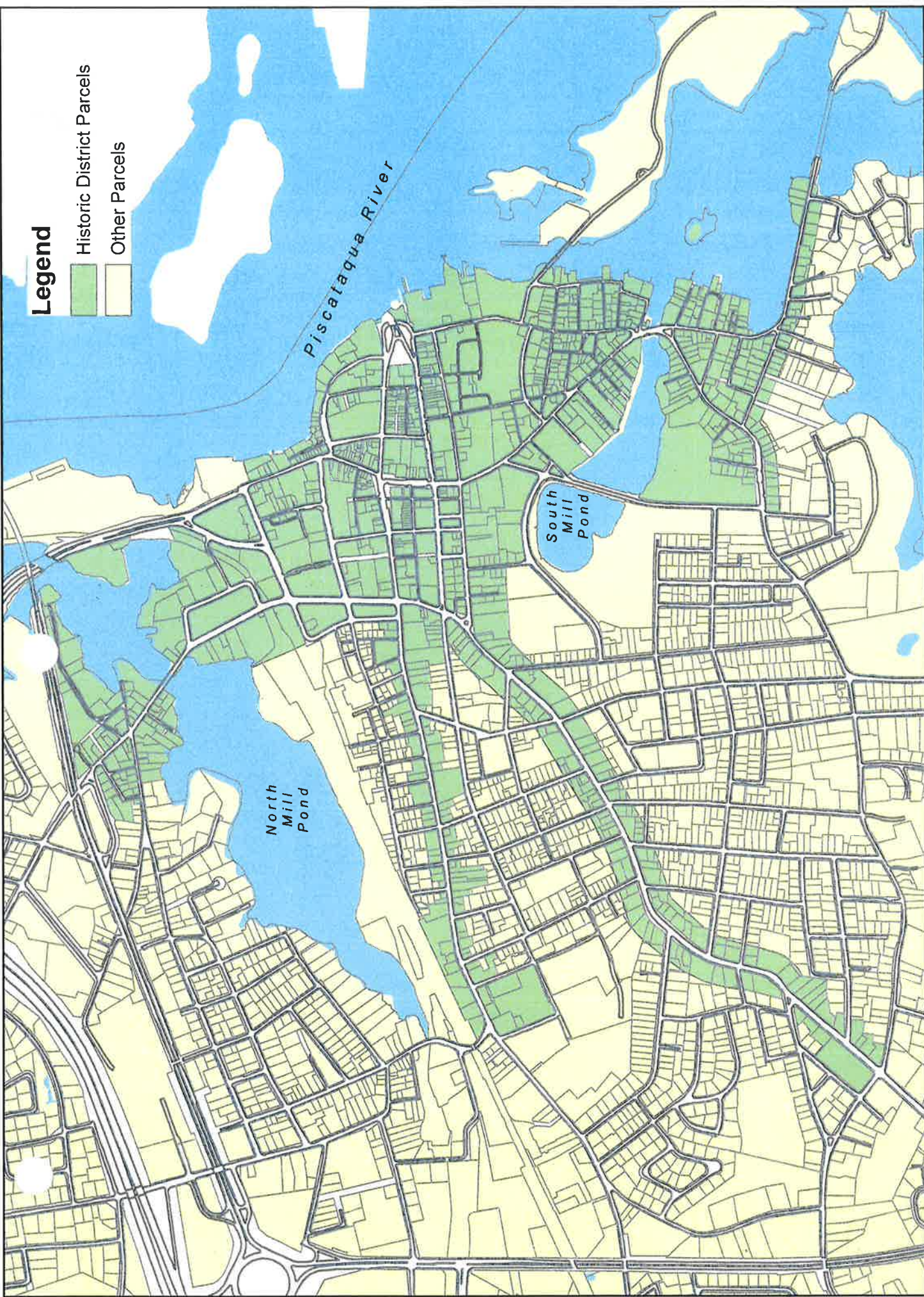
☐ Insufficient information to initiate review. ☐ Additional information is needed in order to complete review.

☐ No Potential to cause Effects ☐ No Historic Properties Affected ☐ No Adverse Effect ☐ Adverse Effect

Comments: _____

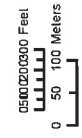
If plans change or resources are discovered in the course of this project, you must contact the Division of Historical Resources as required by federal law and regulation.

Authorized Signature: _____ Date: _____



Legend

- Historic District Parcels
- Other Parcels



This map may not accurately represent all areas of Historic District. The official zoning map is available at the Portsmouth Planning Department.

Historic District Portsmouth, New Hampshire

Map prepared by Portsmouth Department of Public Works, 15 May 2013
Comments and corrections: www.cityofportsmouth.com

**Granite State Mineral
Stormwater Pollution Prevention Plan**

**APPENDIX O
Amendments to SWPPP
Log**

SWPPP Contact:[illegible]

[illegible]

**Granite State Mineral
Stormwater Pollution Prevention Plan**

**APPENDIX P
EPA Fact Sheets for
Sector P
Trucking & Storage**

INDUSTRIAL STORMWATER

FACT SHEET SERIES



U.S. EPA Office of Water
EPA-833-F-06-031
February 2021

Sector P: Motor Freight Transportation Facilities, Passenger Transportation Facilities, Petroleum Bulk Oil Stations and Terminals, Rail Transportation Facilities, and United States Postal Service Transportation Facilities

What is the NPDES stormwater permitting program for industrial activity?

Activities, such as material handling and storage, equipment maintenance and cleaning, industrial processing or other operations that occur at industrial facilities are often exposed to stormwater. The runoff from these areas may discharge pollutants directly into nearby waterbodies or indirectly via storm sewer systems, thereby degrading water quality.

In 1990, the U.S. Environmental Protection Agency (EPA) developed permitting regulations under the National Pollutant Discharge Elimination System (NPDES) to control stormwater discharges associated with eleven categories of industrial activity. As a result, NPDES permitting authorities, which may be either EPA or a state environmental agency, issue stormwater permits to control runoff from these industrial facilities.

What types of industrial facilities are required to obtain permit coverage?

This fact sheet specifically discusses stormwater discharges from land transportation and warehousing activities as defined by Standard Industrial Classification (SIC) Major Groups 40, 41, 42, 43, and SIC 5171. Facilities and products in this group fall under the following categories, all of which require coverage under an industrial stormwater permit:

- ◆ Motor freight transportation facilities (SIC 4212-4231)
- ◆ Passenger transportation facilities (SIC 4111-4173)
- ◆ Petroleum bulk oil stations and terminals (SIC 5171)
- ◆ Rail transportation facilities (SIC 4011, 4013)
- ◆ United States Postal Service facilities (SIC 4311)

Vehicle and equipment maintenance is a broad term used to include the following activities:

- ◆ Vehicle and equipment fluid changes
- ◆ Mechanical repairs
- ◆ Parts cleaning
- ◆ Sanding
- ◆ Refinishing
- ◆ Painting and/or fueling
- ◆ Locomotive sanding (loading sand for traction)
- ◆ Storage of vehicles and equipment waiting for repair or maintenance
- ◆ Storage of the related materials and waste materials, such as oil, fuel, batteries, tires, or oil filters

INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector P: Motor Freight Transportation Facilities, Passenger Transportation Facilities, Petroleum Bulk Oil Stations and Terminals, Rail Transportation Facilities, and United States Postal Service Transportation Facilities

Equipment cleaning operations include areas where the following types of activities take place:

- ◆ Vehicle exterior wash down
- ◆ Interior trailer washouts
- ◆ Tank washouts
- ◆ Rinsing of transfer equipment

What does an industrial stormwater permit require?

Common requirements for coverage under an industrial stormwater permit include development of a written stormwater pollution prevention plan (SWPPP), implementation of control measures, and submittal of a request for permit coverage, usually referred to as the Notice of Intent or NOI. The SWPPP is a written assessment of potential sources of pollutants in stormwater runoff and control measures that will be implemented at your facility to minimize the discharge of these pollutants in runoff from the site. These control measures include site-specific best management practices (BMPs), maintenance plans, inspections, employee training, and reporting. The procedures detailed in the SWPPP must be implemented by the facility and updated as necessary, with a copy of the SWPPP kept on-site. The industrial stormwater permit also requires collection of visual, analytical, and/or compliance monitoring data to determine the effectiveness of implemented BMPs. For more information on EPA's industrial stormwater permit and links to State stormwater permits, go to www.epa.gov/npdes/stormwater and click on "Industrial Activity."

What pollutants are associated with activities at my facility?

Pollutants conveyed in stormwater discharges from land transportation and warehousing activities will vary. There are a number of factors that influence to what extent industrial activities and significant materials can affect water quality.

- ◆ Geographic location
- ◆ Topography
- ◆ Hydrogeology
- ◆ Extent of impervious surfaces (e.g., concrete or asphalt)
- ◆ Type of ground cover (e.g., vegetation, crushed stone, or dirt)
- ◆ Outdoor activities (e.g., material storage, loading/unloading, vehicle maintenance)
- ◆ Size of the operation
- ◆ Type, duration, and intensity of precipitation events

The activities, pollutant sources, and pollutants detailed in Table 1 are commonly found at facilities with vehicle and equipment maintenance and equipment cleaning operations and Table 1A details activities, pollutant sources, and pollutants commonly found at petroleum bulk oil stations and terminals.

Table 1. Common Activities, Pollutant Sources, and Associated Pollutants at Motor Freight Transportation Facilities, Passenger Transportation Facilities, Rail Transportation Facilities, and United States Postal Service Transportation Facilities

Activity	Pollutant Source	Pollutant
Fueling	Spills and leaks during fuel delivery	Fuel, oil, heavy metals
	Spills caused by "topping off" fuel tanks	
	Rainfall falling on the fuel area or stormwater running onto the fuel area	
	Hosing or washing down fuel area	
	Leaking storage tanks	

INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector P: Motor Freight Transportation Facilities, Passenger Transportation Facilities, Petroleum Bulk Oil Stations and Terminals, Rail Transportation Facilities, and United States Postal Service Transportation Facilities

Table 1. Common Activities, Pollutant Sources, and Associated Pollutants at Motor Freight Transportation Facilities, Passenger Transportation Facilities, Rail Transportation Facilities, and United States Postal Service Transportation Facilities (continued)

Activity	Pollutant Source	Pollutant
Vehicle washing and maintenance	Parts cleaning	Chlorinated solvents, oil, heavy metals, acid/alkaline wastes
	Waste disposal of greasy rags, oil filters, air filters, batteries, hydraulic fluids, transmission fluid, radiator fluids, degreasers	Oil, heavy metals, chlorinated solvents, acid/alkaline wastes, ethylene glycol
	Spills of oil, degreasers, hydraulic fluids, transmission fluid, radiator fluids	Oil, arsenic, heavy metals, organics, chlorinated solvents, ethylene glycol
	Fluids replacement, including oil, hydraulic fluids, transmission fluid, radiator fluids	Oil, arsenic, heavy metals, organics, chlorinated solvents, ethylene glycol
	Washing or steam cleaning	Oil, detergents, heavy metals, chlorinated solvents, phosphorus, salts, suspended solids
Outdoor vehicle and equipment storage and parking	Leaking vehicle fluids including hydraulic lines and radiators, leaking or improperly maintained locomotive on-board drip collection systems, brake dust	Oil, hydraulic fluids, arsenic, heavy metals, organics, fuel
Painting areas	Paint and paint thinner spills	Paint, spent chlorinated solvents, heavy metals
	Spray painting	Paint solids, heavy metals
	Sanding or paint stripping	Dust, paint solids, heavy metals
	Paint clean up	Paint, spent chlorinated solvents, heavy metals
Railroad locomotive sanding	Loading traction sand on locomotives	Sediment
Liquid storage in above ground storage	External corrosion and structural failure	Oil, grease, heavy metals, materials being stored
	Installation problems	
	Spills and overfills due to operator error	
	Failure of piping systems (pipes, pumps, flanges, couplings, hoses, and valves)	

Table 1A. Common Activities, Pollutant Sources, and Pollutants at Petroleum Bulk Oil Stations and Terminals

Activity	Pollutant Source	Pollutant
Liquid storage in above ground storage	External corrosion and structural failure	Oil, grease, heavy metals, materials being stored
	Installation problems	
	Spills and overfills due to operator error	
	Failure of piping systems (pipes, pumps, flanges, couplings, hoses, and valves)	
Petroleum loading/unloading	Spills and overfills due to operator error	Oil, grease

Note: Activities may have additional pollutant sources that contain PFAS and can come into contact with stormwater discharges. Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that include PFOA, PFOS, GenX, and many other chemicals.

INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector P: Motor Freight Transportation Facilities, Passenger Transportation Facilities, Petroleum Bulk Oil Stations and Terminals, Rail Transportation Facilities, and United States Postal Service Transportation Facilities

What BMPs can be used to minimize contact between stormwater and potential pollutants at my facility?

A variety of BMP options may be applicable to eliminate or minimize the presence of pollutants in stormwater discharges from land transportation and warehousing activities. You will likely need to implement a combination or suite of BMPs to address stormwater runoff at your facility. Your first consideration should be for pollution prevention BMPs, which are designed to prevent or minimize pollutants from entering stormwater runoff and/or reduce the volume of stormwater requiring management. Prevention BMPs can include regular cleanup, collection and containment of debris in storage areas, and other housekeeping practices, spill control, and employee training. It may also be necessary to implement treatment BMPs, which are engineered structures intended to treat stormwater runoff and/or mitigate the effects of increased stormwater runoff peak rate, volume, and velocity. Treatment BMPs are generally more expensive to install and maintain and include oil-water separators, wet ponds, and proprietary filter devices.

BMPs must be selected and implemented to address the following:

Good Housekeeping Practices

Good housekeeping is a practical, cost-effective way to maintain a clean and orderly facility to prevent potential pollution sources from coming into contact with stormwater. It includes establishing protocols to reduce the possibility of mishandling materials or equipment and training employees in good housekeeping techniques. Common areas where good housekeeping practices should be followed include trash containers and adjacent areas, material storage areas, vehicle and equipment maintenance areas, and loading docks. Good housekeeping practices must include a schedule for regular pickup and disposal of garbage and waste materials and routine inspections of drums, tanks, and containers for leaks and structural conditions. Practices also include containing and covering garbage, waste materials, and debris. Involving employees in routine monitoring of housekeeping practices has proven to be an effective means of ensuring the continued implementation of these measures. Industrial facilities can conduct activities that use, store, manufacture, transfer, and/or dispose of PFAS containing materials. Successful good housekeeping practices to minimize PFAS exposure to stormwater could include inventorying the location, quantity, and method of storage; using properly designed storage and transfer techniques; providing secondary containment around chemical storage areas; and using proper techniques for cleaning or replacement of production systems or equipment.

Minimizing Exposure

Where feasible, minimizing exposure of potential pollutant sources to precipitation is an important control option. Minimizing exposure prevents pollutants, including debris, from coming into contact with precipitation and can reduce the need for BMPs to treat contaminated stormwater runoff. It can also prevent debris from being picked up by stormwater and carried into drains and surface waters. Examples of BMPs for exposure minimization 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 the simple practice of keeping a dumpster lid closed can be a very effective pollution prevention measure. Another example could include locating PFAS-containing materials and residues away from drainage pathways and surface waters.

Erosion and Sediment Control

BMPs must be selected and implemented to limit erosion on areas of your site that, due to topography, activities, soils, cover, materials, or other factors are likely to experience erosion. Erosion control BMPs such as seeding, mulching, and sodding prevent soil from becoming dislodged and should be considered first. Sediment control BMPs such as silt fences, sediment ponds, and stabilized entrances trap sediment after it has eroded. Sediment control BMPs should be used to back-up erosion control BMPs.

INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector P: Motor Freight Transportation Facilities, Passenger Transportation Facilities, Petroleum Bulk Oil Stations and Terminals, Rail Transportation Facilities, and United States Postal Service Transportation Facilities

Management of Runoff

Your SWPPP must contain a narrative evaluation of the appropriateness of stormwater management practices that divert, infiltrate, reuse, or otherwise manage stormwater runoff so as to reduce the discharge of pollutants. Appropriate measures are highly site-specific, but may include, among others, vegetative swales, collection and reuse of stormwater, inlet controls, snow management, infiltration devices, and wet retention measures. Incorporating treatment like granular activated carbon may be helpful to remove certain pollutants like PFAS.

A combination of preventive and treatment BMPs will yield the most effective stormwater management for minimizing the offsite discharge of pollutants via stormwater runoff. Though not specifically outlined in this fact sheet, BMPs must also address preventive maintenance records or logbooks, regular facility inspections, spill prevention and response, and employee training.

All BMPs require regular maintenance to function as intended. Some management measures have simple maintenance requirements, others are quite involved. You must regularly inspect all BMPs to ensure they are operating properly, including during runoff events. As soon as a problem is found, action to resolve it should be initiated immediately.

Implement BMPs, such as those listed below in Table 2 and 2A for the control of pollutants at land transportation and warehousing facilities, to minimize and prevent the discharge of pollutants in stormwater. Identifying weaknesses in current facility practices will aid the permittee in determining appropriate BMPs that will achieve a reduction in pollutant loadings. BMPs listed in Table 2 and 2A are broadly applicable to land transportation and warehousing facilities; however, this is not a complete list and you are recommended to consult with regulatory agencies or a stormwater engineer/consultant to identify appropriate BMPs for your facility.

Table 2. BMPs for Potential Pollutant Sources at Motor Freight Transportation Facilities, Passenger Transportation Facilities, Rail Transportation Facilities, and United States Postal Service Transportation Facilities

Pollutant Source	BMPs
Fueling	<p>Stationary fueling areas</p> <ul style="list-style-type: none"><input type="checkbox"/> Conduct fueling operations (including the transfer of fuel from tank trucks) on an impervious or contained pad or under a roof or canopy where possible. Covering should cover extend beyond spill containment pad to prevent rain from entering.<input type="checkbox"/> When fueling in uncovered area, use concrete pad (not asphalt, which is not chemically resistant to the fuels being handled).<input type="checkbox"/> Use drip pans where leaks or spills of fuel can occur, and where making and breaking hose connections.<input type="checkbox"/> Use fueling hoses with check valves to prevent hose drainage after filling.<input type="checkbox"/> Keep spill cleanup materials readily available. Clean up spills and leaks immediately.<input type="checkbox"/> Minimize/eliminate run-on to fueling areas with diversion dikes, berms, curbing, surface grading or other equivalent measures.<input type="checkbox"/> Collect stormwater runoff and provide treatment or recycling.<input type="checkbox"/> Use dry cleanup methods for fuel area rather than hosing down the fuel area. Perform preventive maintenance on storage tanks to detect potential leaks before they occur.<input type="checkbox"/> Inspect the fueling area for leaks and spills.<input type="checkbox"/> Provide curbing or posts around fuel pumps to prevent collisions during vehicle ingress and egress.<input type="checkbox"/> Discourage "topping off" of fuel tanks.

INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector P: Motor Freight Transportation Facilities, Passenger Transportation Facilities, Petroleum Bulk Oil Stations and Terminals, Rail Transportation Facilities, and United States Postal Service Transportation Facilities

Table 2. BMPs for Potential Pollutant Sources at Motor Freight Transportation Facilities, Passenger Transportation Facilities, Rail Transportation Facilities, and United States Postal Service Transportation Facilities (continued)

Pollutant Source	BMPs
Fueling (continued)	<p>Mobile fueling area</p> <ul style="list-style-type: none"> <input type="checkbox"/> Use drip pan under the transfer hose. <p>Use fueling hoses with check valves to prevent hose drainage after filling.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Ensure the fueling vehicle is equipped with a manual shutoff valve. <input type="checkbox"/> Discourage "topping off" of fuel tanks. <input type="checkbox"/> Train personnel on vehicle fueling BMPs.
Vehicle and equipment maintenance	<p>Good Housekeeping</p> <ul style="list-style-type: none"> <input type="checkbox"/> Eliminate floor drains that are connected to the storm or sanitary sewer. If necessary, install a sump that is pumped regularly. Collected wastes should be properly treated or disposed of by a licensed waste disposal company. <input type="checkbox"/> Do all cleaning at a centralized station so the solvents stay in one area. <input type="checkbox"/> If parts are dipped in liquid, remove them slowly to avoid spills. <input type="checkbox"/> Use drip pans, drain boards, and drying racks to direct drips back into a fluid holding tank for reuse. <input type="checkbox"/> Drain all parts of fluids into appropriate containers for waste disposal or re-use prior to disposal. Oil filters can be crushed and recycled. <input type="checkbox"/> Promptly transfer used fluids to the proper container; do not leave full drip pans or other open containers around the shop. Empty and clean drip pans and containers. Washwater should also generally be treated as a waste material and disposed of appropriately. <input type="checkbox"/> Clean up leaks, drips, and other spills without using large amounts of water. Use absorbents for dry cleanup whenever possible. <input type="checkbox"/> Prohibit the practice of hosing down an area where the practice would result in the discharge of pollutants to a storm sewer system. <input type="checkbox"/> Do not pour liquid waste into floor drains, sinks, outdoor storm drain inlets, or other storm drains or sewer connections. Liquid wastes should be collected in a properly labeled container, and disposed of by a licensed waste hauler or other appropriate method. <input type="checkbox"/> Maintain an organized inventory of materials. <input type="checkbox"/> Eliminate or reduce the number and amount of hazardous materials and waste by substituting nonhazardous or less hazardous materials. <input type="checkbox"/> Label and track the recycling of waste material (e.g., used oil, spent solvents, batteries). <input type="checkbox"/> Store batteries and other significant materials inside. <input type="checkbox"/> Dispose of greasy rags, oil filters, air filters, batteries, spent coolant, and degreasers in compliance with RCRA regulations. <input type="checkbox"/> Request and keep manifests of all waste materials hauled away from your facility. <p>Minimizing Exposure</p> <ul style="list-style-type: none"> <input type="checkbox"/> Perform all cleaning operations indoors or under cover when possible. Conduct the cleaning operations in an area with a concrete floor with no floor drain other than to sanitary sewers or treatment facilities. Notable discharges to sanitary sewer systems must be done in compliance with rules and policies of the POTW operator. <input type="checkbox"/> If operations are outside and exposed to stormwater, perform them on a concrete pad that is impervious and contained.

INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector P: Motor Freight Transportation Facilities, Passenger Transportation Facilities, Petroleum Bulk Oil Stations and Terminals, Rail Transportation Facilities, and United States Postal Service Transportation Facilities

Table 2. BMPs for Potential Pollutant Sources at Motor Freight Transportation Facilities, Passenger Transportation Facilities, Rail Transportation Facilities, and United States Postal Service Transportation Facilities (continued)

Pollutant Source	BMPs
Vehicle and equipment maintenance (continued)	<ul style="list-style-type: none"> <input type="checkbox"/> Park vehicles and equipment indoors or under a roof whenever possible. <input type="checkbox"/> Check vehicles closely for leaks and use pans to collect fluid when leaks occur. <p>Management of Runoff</p> <ul style="list-style-type: none"> <input type="checkbox"/> Use berms, curbs, grassed swales or other diversion measures to ensure that stormwater runoff from other parts of the facility does not flow over the maintenance area. <input type="checkbox"/> Collect the stormwater runoff from the cleaning area and provide treatment or recycling. <input type="checkbox"/> Discharge vehicle wash or rinse water to the sanitary sewer (if allowed by sewer authority), wastewater treatment, a land application site, or recycle on-site. DO NOT discharge washwater to a storm drain or to surface water. <p>Inspections and Training</p> <ul style="list-style-type: none"> <input type="checkbox"/> Inspect the maintenance area regularly to ensure BMPs are implemented. <input type="checkbox"/> Train employees on waste control and disposal procedures.
Outdoor vehicle and equipment storage and parking	<ul style="list-style-type: none"> <input type="checkbox"/> Store vehicles and equipment indoors when possible. <input type="checkbox"/> Cover the storage area with a roof. <input type="checkbox"/> Provide diversion berms, dikes or grassed swales around the perimeter of the area to limit run-on. <input type="checkbox"/> Use drip pans under all vehicles and equipment waiting for maintenance. <input type="checkbox"/> Use absorbents for dry cleanup for spills and leaks. <input type="checkbox"/> Clean pavement surface to remove oil and grease without using large amounts of water. <input type="checkbox"/> Regularly sweep area to minimize debris on the ground. <input type="checkbox"/> Provide dust control if necessary. When controlling dust, sweep and/or apply water or materials that will not impact surface or ground water. <input type="checkbox"/> Inspect the storage yard for filling drip pans and regularly to ensure BMPs are implemented. <input type="checkbox"/> Train employees on procedures for storage and inspection items.
Locomotive sanding areas	<ul style="list-style-type: none"> <input type="checkbox"/> Cover sand storage piles. <input type="checkbox"/> Confine storage to areas outside of drainage pathways and away from surface waters. <input type="checkbox"/> Divert stormwater around storage areas with vegetated swales, and/or berms. <input type="checkbox"/> Practice good housekeeping measures such as frequent removal of dust and debris. Cleanup methods may include sweepers, scrapers, or scoops. <input type="checkbox"/> Use properly designed basins for containment and collection, <input type="checkbox"/> Use control measures such as berms, silt fences, waddles or sediment traps to control sediment from leaving storage area. <input type="checkbox"/> Inspect the area regularly to ensure BMPs are implemented. <input type="checkbox"/> Train employees on BMP inspection and maintenance procedures.

INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector P: Motor Freight Transportation Facilities, Passenger Transportation Facilities, Petroleum Bulk Oil Stations and Terminals, Rail Transportation Facilities, and United States Postal Service Transportation Facilities

Table 2. BMPs for Potential Pollutant Sources at Motor Freight Transportation Facilities, Passenger Transportation Facilities, Rail Transportation Facilities, and United States Postal Service Transportation Facilities (continued)

Pollutant Source	BMPs
Painting areas	<ul style="list-style-type: none"> <input type="checkbox"/> Confine activities to designated areas outside drainage pathways and away from surface waters. <input type="checkbox"/> Enclose, cover, or contain painting activities to the maximum extent practical to prevent overspray from reaching surface waters. <input type="checkbox"/> Hang plastic barriers or tarpaulins during blasting or painting operations to contain debris. <input type="checkbox"/> Prohibit uncontained spray painting activities. <input type="checkbox"/> Prohibit spray painting activities during windy conditions which render containment ineffective. <input type="checkbox"/> Use spray equipment that delivers more paint to the target and less overspray. <input type="checkbox"/> Mix paints and solvents in designated areas away from drains, ditches, piers, and surface waters, preferably indoors or under cover. <input type="checkbox"/> Have absorbent and other cleanup items readily available for immediate cleanup of spills. <input type="checkbox"/> Allow empty paint cans to dry before disposal. <input type="checkbox"/> Store paint and paint thinner away from traffic areas to avoid spills. <input type="checkbox"/> Recycle paint, paint thinner, and solvents. <input type="checkbox"/> Establish and implement effective inventory control to reduce paint waste, including tracking date received and expiration dates. <input type="checkbox"/> Store waste paint, solvents, and rags in covered containers to prevent evaporation to the atmosphere. <input type="checkbox"/> Use solvents with low volatility and coatings with low VOC content; use high transfer efficiency coating techniques such as brushing and rolling to reduce overspray and solvent emissions. <input type="checkbox"/> Inspect painting procedures to ensure that they are conducted properly. <input type="checkbox"/> Train employees on proper sanding, painting, and spraying techniques. <input type="checkbox"/> Wash paint brushes, rollers and other equipment in utility sinks or other locations where wash water is treated or hauled. Do not wash equipment outside on pavement or into storm drains.
Vehicle washing	<ul style="list-style-type: none"> <input type="checkbox"/> Avoid washing parts or equipment outside. <input type="checkbox"/> Confine activities to designated areas outside drainage pathways and away from surface waters. <input type="checkbox"/> If washing outdoors, cover the cleaning operation and ensure that all washwaters drain to the intended collection system. <input type="checkbox"/> Use phosphate-free biodegradable detergents. <input type="checkbox"/> Contain and recycle washwaters. <input type="checkbox"/> Collect stormwater runoff from the cleaning area and provide treatment or recycling. <input type="checkbox"/> Inspect cleaning area regularly to ensure BMPs are implemented and maintained. <input type="checkbox"/> Train employees on proper washing procedures.

INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector P: Motor Freight Transportation Facilities, Passenger Transportation Facilities, Petroleum Bulk Oil Stations and Terminals, Rail Transportation Facilities, and United States Postal Service Transportation Facilities

Table 2. BMPs for Potential Pollutant Sources at Motor Freight Transportation Facilities, Passenger Transportation Facilities, Rail Transportation Facilities, and United States Postal Service Transportation Facilities (continued)

Pollutant Source	BMPs
Liquid storage in above ground storage tanks	<ul style="list-style-type: none"> <input type="checkbox"/> Store materials inside. <input type="checkbox"/> If area is uncovered, connect sump outlet to sanitary sewer (if possible) or an oil/water separator, catch basin filter, etc. If connecting to a sanitary sewer check with the system operator to ensure that the discharge is acceptable. If implementing separator or filter technologies ensure that regular inspections and maintenance procedures are in place. <input type="checkbox"/> Develop and implement spill plans. <input type="checkbox"/> Train employees in spill prevention and control. <p>Above ground tanks</p> <ul style="list-style-type: none"> <input type="checkbox"/> Provide secondary containment, such as dikes, with a height sufficient to contain a spill (the greater of 10 percent of the total enclosed tank volume or 110 percent of the volume contained in the largest tank). <input type="checkbox"/> If containment structures have drains, ensure that the drains have valves, and that valves are maintained in the closed position. Institute protocols for checking/testing stormwater in containment areas prior to discharge. <input type="checkbox"/> Use double-walled tanks with overflow protection. <input type="checkbox"/> Keep liquid transfer nozzles/hoses in secondary containment area. <p>Portable containers/drums</p> <ul style="list-style-type: none"> <input type="checkbox"/> Store drums indoors when possible. <input type="checkbox"/> Store drums, including empty or used drums, in secondary containment with a roof or cover (including temporary cover such as a tarp that prevents contact with precipitation). <input type="checkbox"/> Provide secondary containment, such as dikes or portable containers, with a height sufficient to contain a spill (the greater of 10 percent of the total enclosed tank volume or 110 percent of the volume contained in the largest tank). <input type="checkbox"/> Clearly label drum with its contents. <input type="checkbox"/> Train employees on proper filling and transfer procedures.
Cold weather activities	<ul style="list-style-type: none"> <input type="checkbox"/> Minimize salt and abrasive application. <input type="checkbox"/> When abrasives are necessary, use uncontaminated sand or ash. <input type="checkbox"/> Train employees on salt and abrasive application.
Improper connections to storm sewer (illicit connections)	<ul style="list-style-type: none"> <input type="checkbox"/> Plug all floor drains connected to sanitary or storm sewer or if connection is unknown. Alternatively, install a sump that is pumped regularly. <input type="checkbox"/> Perform smoke or dye testing to determine if interconnections exist between sanitary water system and storm sewer system. <input type="checkbox"/> Update facility schematics to accurately reflect all plumbing connections. <input type="checkbox"/> Install a safeguard against vehicle washwaters entering the storm sewer unless permitted. <input type="checkbox"/> Inspect and maintain the integrity of all underground storage tanks; replace when necessary. <input type="checkbox"/> Train employees on BMP disposal practices for all materials.

INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector P: Motor Freight Transportation Facilities, Passenger Transportation Facilities, Petroleum Bulk Oil Stations and Terminals, Rail Transportation Facilities, and United States Postal Service Transportation Facilities

Table 2. BMPs for Potential Pollutant Sources at Motor Freight Transportation Facilities, Passenger Transportation Facilities, Rail Transportation Facilities, and United States Postal Service Transportation Facilities (continued)

Pollutant Source	BMPs
Liquid storage in above ground storage	<ul style="list-style-type: none"> <input type="checkbox"/> If area is uncovered, connect sump outlet to sanitary sewer (if possible) or an oil/water separator, catch basin filter, etc. If connecting to a sanitary sewer check with the system operator to ensure that the discharge is acceptable. If implementing separator or filter technologies ensure that regular inspections and maintenance procedures are in place. <input type="checkbox"/> Provide secondary containment, such as dikes, with a height sufficient to contain a spill (the greater of 10 percent of the total enclosed tank volume or 110 percent of the volume contained in the largest tank). <input type="checkbox"/> If containment structures have drains, ensure that the drains have valves, and that valves are maintained in the closed position. Institute protocols for checking/testing stormwater in containment areas prior to discharge. <input type="checkbox"/> Use double-walled tanks with overflow protection <input type="checkbox"/> Keep liquid transfer nozzles/hoses in secondary containment area. <input type="checkbox"/> Develop and implement spill plans and spill prevention, containment and countermeasures (SPCC). <input type="checkbox"/> Train employees in spill prevention and control.
Petroleum loading/unloading	<ul style="list-style-type: none"> <input type="checkbox"/> Confine loading/unloading activities to designated areas outside drainage pathways and away from surface waters. <input type="checkbox"/> Provide diversion berms, dikes or grassed swales around the perimeter of the area to limit run-on. <input type="checkbox"/> Avoid loading/unloading materials in the rain or provide cover or other protection for loading docks. <input type="checkbox"/> Cover loading and unloading areas and perform these activities on an impervious pad to enable easy collection of spilled materials. <input type="checkbox"/> Provide overhangs at truck loading/unloading docks. <input type="checkbox"/> Slope the impervious concrete floor to collect spills and leaks and convey them to proper containment and treatment. <input type="checkbox"/> For rail transfer, a drip pan shall be installed within the rails to collect spillage from the tank. <input type="checkbox"/> For transfer to/from truck or rail cars, ensure hose connection points at storage containers are inside containment areas, or drip pans are used in areas where spillage may occur which are not in a containment area. <input type="checkbox"/> Regularly sweep area to minimize debris on the ground. <input type="checkbox"/> Develop and implement spill prevention, containment, and countermeasure (SPCC) plans. <input type="checkbox"/> Train employees in spill prevention, control, cleanup and transfer techniques.

What if activities and materials at my facility are not exposed to precipitation?

The industrial stormwater program requires permit coverage for a number of specified types of industrial activities. However, when a facility is able to prevent the exposure of ALL relevant activities and materials to precipitation, it may be eligible to claim no exposure and qualify for a waiver from permit coverage.

INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector P: Motor Freight Transportation Facilities, Passenger Transportation Facilities, Petroleum Bulk Oil Stations and Terminals, Rail Transportation Facilities, and United States Postal Service Transportation Facilities

If you are regulated under the industrial permitting program, you must either obtain permit coverage or submit a no exposure certification form, if available. Check with your permitting authority for additional information as not every permitting authority program provides no exposure exemptions.

Where do I get more information?

For additional information on the industrial stormwater program see www.epa.gov/npdes/stormwater/msgp.

A list of names and telephone numbers for each EPA Region or state NPDES permitting authority can be found at www.epa.gov/npdes/stormwatercontacts.

References

Information contained in this Fact Sheet was compiled from EPA's past and current Multi-Sector General Permits and from the following sources:

- ◆ City of Phoenix, Arizona, Street Transportation Department. 2004. Prevent Storm Water Contamination: Best Management Practices for Section P - Motor Freight, Freight Transportation, Petroleum Bulk Stations & Terminals, Rail Transportation, & U.S. Postal Service Transportation. SIC Codes Major Groups 40, 41, 42, 43, and 5171.
<http://phoenix.gov/STREETS/motfrei.pdf>
- ◆ U.S. EPA, Office of Science and Technology. 1999. Preliminary Data Summary of Urban Stormwater Best Management Practices. EPA-821-R-99-012
www.epa.gov/OST/stormwater/
- ◆ U.S. EPA, Office of Wastewater Management. *NPDES Stormwater Multi-Sector General Permit for Industrial Activities (MSGP)*.
www.epa.gov/npdes/stormwater/msgp

**Granite State Mineral
Stormwater Pollution Prevention Plan**

**APPENDIX Q
EPA Fact Sheets for
Sector Q
Marine Transportation**

INDUSTRIAL STORMWATER

FACT SHEET SERIES



U.S. EPA Office of Water
EPA-833-F-06-032
February 2021

Sector Q: Water Transportation Facilities with Vehicle Maintenance Shops and/or Equipment Cleaning Operations

What is the NPDES stormwater permitting program for industrial activity?

Activities, such as material handling and storage, equipment maintenance and cleaning, industrial processing or other operations that occur at industrial facilities are often exposed to stormwater. The runoff from these areas may discharge pollutants directly into nearby waterbodies or indirectly via storm sewer systems, thereby degrading water quality.

In 1990, the U.S. Environmental Protection Agency (EPA) developed permitting regulations under the National Pollutant Discharge Elimination System (NPDES) to control stormwater discharges associated with eleven categories of industrial activity. As a result, NPDES permitting authorities, which may be either EPA or a state environmental agency, issue stormwater permits to control runoff from these industrial facilities.

What types of industrial facilities are required to obtain permit coverage?

This fact sheet specifically discusses stormwater discharges from water transportation facilities with vehicle maintenance shops and/or equipment cleaning operations as defined by Standard Industrial Classification (SIC) Major Group 44. This includes water transportation facilities that perform vessel and equipment fluid changes, mechanical repairs, parts cleaning, sanding, blasting, welding, refinishing, painting, fueling, vessel and vehicle exterior washdown. Facilities and products in this group fall under the following categories, all of which require coverage under an industrial stormwater permit:

- ◆ Deep Sea Foreign Transportation of Freight (SIC 4412)
- ◆ Deep Sea Domestic Transportation of Freight (SIC 4424)
- ◆ Freight Transportation on the Great Lakes—St. Lawrence Seaway (SIC 4432)
- ◆ Water Transportation of Freight, Not Elsewhere Classified (SIC 4449)
- ◆ Deep Sea Transportation of Passengers, Except by Ferries (SIC 4492)
- ◆ Ferries (SIC 4482)
- ◆ Water Transportation of Passengers, Not Elsewhere Classified (SIC 4489)
- ◆ Marine Cargo Handling (SIC 4491)
- ◆ Towing and Tugboat Services (SIC 4492)
- ◆ Marinas (SIC 4493)
- ◆ Water Transportation Services, Not Elsewhere Classified (SIC 4499)

Bilge and ballast water, sanitary wastes, pressure wash water, and cooling water originating from vessels are not covered under the industrial stormwater program. These discharges must be covered by a separate NPDES permit if discharging to receiving waters or to a municipal separate storm sewer system.

What does an industrial stormwater permit require?

Common requirements for coverage under an industrial stormwater permit include development of a written stormwater pollution prevention plan (SWPPP), implementation of control measures, and submittal of a request for permit coverage, usually referred to as the Notice of Intent or NOI. The SWPPP is a written assessment of potential sources of pollutants in stormwater runoff and control measures that will be implemented at your facility to minimize the discharge of these pollutants in runoff from the site. These control measures include site-specific best management practices (BMPs), maintenance plans, inspections, employee training, and reporting. The procedures detailed in the SWPPP must be implemented by the facility and updated as necessary, with a copy of the SWPPP kept on-site. The industrial stormwater permit also requires collection of visual, analytical, and/or compliance monitoring data to determine the effectiveness of implemented BMPs. For more information on EPA's industrial stormwater permit and links to State stormwater permits, go to www.epa.gov/npdes/stormwater and click on "Industrial Activity."

What pollutants are associated with activities at my facility?

Pollutants conveyed in stormwater discharges from water transportation facilities with vehicle maintenance shops and/or equipment cleaning operations will vary. There are a number of factors that influence to what extent industrial activities and significant materials can affect water quality.

- ◆ Geographic location
- ◆ Topography
- ◆ Hydrogeology
- ◆ Extent of impervious surfaces (e.g., concrete or asphalt)
- ◆ Type of ground cover (e.g., vegetation, crushed stone, or dirt)
- ◆ Outdoor activities (e.g., material storage, loading/unloading, vehicle maintenance)
- ◆ Size of the operation
- ◆ Type, duration, and intensity of precipitation events

The activities, pollutant sources, and pollutants detailed in Table 1 are commonly found at water transportation facilities with vehicle maintenance shops and/or equipment cleaning operations.

Table 1. Common Activities, Pollutant Sources, and Associated Pollutants at Water Transportation Facilities with Vehicle Maintenance Shops and/or Equipment Cleaning Operations

Activity	Pollutant Source	Pollutant
Pressure washing	Wash water	Paint solids, heavy metals, suspended solids, debris
Surface preparation, paint removal, sanding	Sanding, mechanical grinding, abrasive blasting, paint stripping	Spent abrasives, paint solids, heavy metals, solvents, dust, debris
Painting	Paint and paint thinner spills, overspray, paint stripping, sanding, and paint cleanup	Paint solids, spent solvents, heavy metals, dust, debris
Drydock operation and maintenance	Sanding, mechanical grinding, abrasive blasting, paint stripping, building materials	Spent abrasives, paint solids, heavy metals, solvents, dust, low density waste (floatables)
Engine maintenance and repairs	Parts cleaning; waste disposal of greasy rags, used lubricants, coolants, and batteries; fluid spills; fluid replacement	Spent solvents, oil, heavy metals, ethylene glycol, acid/alkaline wastes, detergents, rags, batteries, loose parts

INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector Q: Water Transportation Facilities with Vehicle Maintenance Shops and/or Equipment Cleaning Operations

Table 1. Common Activities, Pollutant Sources, and Associated Pollutants at Water Transportation Facilities with Vehicle Maintenance Shops and/or Equipment Cleaning Operations (continued)

Activity	Pollutant Source	Pollutant
Material handling: Transfer Storage Disposal	Fueling: spills, leaks, and hosing area	Fuel, oil, heavy metals
	Liquid storage in above ground storage: spills and overfills, external corrosion, failure of piping systems	Fuel, oil, heavy metals, material being stored
	Waste material storage and disposal: paint solids, solvents, trash, and spent abrasives and petroleum products	Paint solids, heavy metals, spent solvents, oil, trash
Shipboard processes improperly discharged to storm sewer or into receiving water	Process and cooling water, sanitary waste, bilge and ballast water	Biochemical oxygen demand (BOD), bacteria, suspended solids, oil, fuel, trash

Note: Activities may have additional pollutant sources that contain PFAS and can come into contact with stormwater discharges. Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that include PFOA, PFOS, GenX, and many other chemicals.

What BMPs can be used to minimize contact between stormwater and potential pollutants at my facility?

A variety of BMP options may be applicable to eliminate or minimize the presence of pollutants in stormwater discharges from water transportation facilities with vehicle maintenance shops and/or equipment cleaning operations. You will likely need to implement a combination or suite of BMPs to address stormwater runoff at your facility. Your first consideration should be for pollution prevention BMPs, which are designed to prevent or minimize pollutants from entering stormwater runoff and/or reduce the volume of stormwater requiring management. Prevention BMPs can include regular clean-up, collection and containment of debris in storage areas, and other housekeeping practices, spill control, and employee training. It may also be necessary to implement treatment BMPs, which are engineered structures intended to treat stormwater runoff and/or mitigate the effects of increased stormwater runoff peak rate, volume, and velocity. Treatment BMPs are generally more expensive to install and maintain and include oil-water separators, wet ponds, and proprietary filter devices.

The measures commonly implemented to reduce pollutants in stormwater associated with water transportation facilities with vehicle maintenance and/or equipment cleaning operations are generally not complicated and simple to implement. The implementation of BMPs should be used in the following areas of the site:

- ◆ Pressure washing areas
- ◆ Blasting and painting areas
- ◆ Material handling areas
- ◆ Engine and maintenance and repair areas
- ◆ Drydock activity areas
- ◆ General yard areas

BMPs must be selected and implemented to address the following:

Good Housekeeping Practices

Good housekeeping is a practical, cost-effective way to maintain a clean and orderly facility to prevent potential pollution sources, including debris, from coming into contact with stormwater and degrading water quality. It includes establishing protocols to reduce the possibility of mishandling materials or equipment and training employees in good housekeeping techniques. Common areas where good housekeeping practices should be followed include trash containers and adjacent areas, material storage areas, vehicle and equipment maintenance areas, and loading docks. Good housekeeping practices must include a schedule for regular pickup and disposal of garbage and waste materials and routine inspections of drums, tanks, and containers for leaks and structural conditions. Practices also include containing and covering garbage, waste materials, and debris.

INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector Q: Water Transportation Facilities with Vehicle Maintenance Shops and/or Equipment Cleaning Operations

Involving employees in routine monitoring of housekeeping practices has proven to be an effective means of ensuring the continued implementation of these measures.

Specific good housekeeping practices that should be implemented by marine transportation facilities include routine removal from the general yard area of scrap, metal, wood, plastic, miscellaneous trash, paper, glass, industrial scrap, insulation, welding rods, and packaging. Additional practices include securing and covering any containers, supplies, or equipment that could become sources of pollution. Industrial facilities can conduct activities that use, store, manufacture, transfer, and/or dispose of PFAS containing materials. Successful good housekeeping practices to minimize PFAS exposure to stormwater could include inventorying the location, quantity, and method of storage; using properly designed storage and transfer techniques; providing secondary containment around chemical storage areas; and using proper techniques for cleaning or replacement of production systems or equipment.

Minimizing Exposure

Where feasible, minimizing exposure of potential pollutant sources to precipitation is an important control option. Minimizing exposure prevents pollutants, including debris, from coming into contact with precipitation and can reduce the need for BMPs to treat contaminated stormwater runoff. It can also prevent debris from being picked up by stormwater and carried into drains and surface waters. Examples of BMPs for exposure minimization 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 the simple practice of keeping a dumpster lid closed and covering trash and recycling receptacles can be a very effective pollution prevention measure to prevent solid materials from entering receiving waters.

Specific exposure minimization practices that should be implemented by marine transportation facilities include:

- ◆ Storing all stored and containerized materials (fuels, paints, solvents, waste oil, antifreeze, batteries) in a protected, secure location away from drains and plainly labeled.
- ◆ Containing all blasting and painting activities to prevent abrasives, paint chips, and overspray from reaching the receiving water or the storm sewer system.
- ◆ Securing any equipment or supplies so that they are not transported during storm events into receiving waters or storm sewer systems.

Another example could include locating PFAS-containing materials and residues away from drainage pathways and surface waters.

Erosion and Sediment Control

BMPs must be selected and implemented to limit erosion on areas of your site that, due to topography, activities, soils, cover, materials, or other factors are likely to experience erosion. Erosion control BMPs such as seeding, mulching, and sodding prevent soil from becoming dislodged and should be considered first. Sediment control BMPs such as silt fences, sediment ponds, and stabilized entrances trap sediment after it has eroded. Sediment control BMPs should be used to back-up erosion control BMPs.

Management of Runoff

Your SWPPP must contain a narrative evaluation of the appropriateness of stormwater management practices that divert, infiltrate, reuse, or otherwise manage stormwater runoff so as to reduce the discharge of pollutants. Appropriate measures are highly site-specific, but may include, among others, vegetative swales, collection and reuse of stormwater, inlet controls, snow management, infiltration devices, and wet retention measures. Incorporating treatment like granular activated carbon may be helpful to remove certain pollutants like PFAS.

INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector Q: Water Transportation Facilities with Vehicle Maintenance Shops and/or Equipment Cleaning Operations

Specifically, these techniques can be applied at water transportation facilities with vehicle maintenance shops and/or equipment cleaning operations. Several examples include:

- ◆ Planting vegetation as a buffer along the water's edge to filter stormwater runoff and remove contaminants and soil particles before they reach surface waters
- ◆ Building infiltration trenches and (vegetated) swales to create an underground reservoir to hold runoff, allowing it to slowly percolate through the bottom into the surrounding soil
- ◆ Building dry wells to collect and store stormwater runoff from rooftops and other relatively "clean" runoff
- ◆ Utilizing deep sump catch basins and water quality inlets with or without a retention/infiltration chamber

A combination of preventive and treatment BMPs will yield the most effective stormwater management for minimizing the offsite discharge of pollutants via stormwater runoff. Though not specifically outlined in this fact sheet, BMPs must also address preventive maintenance records or logbooks, regular facility inspections, spill prevention and response, and employee training.

All BMPs require regular maintenance to function as intended. Some management measures have simple maintenance requirements, others are quite involved. You must regularly inspect all BMPs to ensure they are operating properly, including during runoff events. As soon as a problem is found, action to resolve it should be initiated immediately.

Implement BMPs, such as those listed below in Table 2 for the control of pollutants at water transportation facilities with vehicle maintenance shops and/or equipment cleaning operations, to minimize and prevent the discharge of pollutants in stormwater. Identifying weaknesses in current facility practices will aid the permittee in determining appropriate BMPs that will achieve a reduction in pollutant loadings. BMPs listed in Table 2 are broadly applicable to water transportation facilities with vehicle maintenance shops and/or equipment cleaning operations; however, this is not a complete list and you are recommended to consult with regulatory agencies or a stormwater engineer/consultant to identify appropriate BMPs for your facility.

Table 2. BMPs for Potential Pollutant Sources Water Transportation Facilities with Vehicle Maintenance shops and/or Equipment Cleaning Operations

Pollutant Source	BMPs
Vessel cleaning (in the water)	<ul style="list-style-type: none"><input type="checkbox"/> When possible, remove boat from water and perform cleaning where debris can be captured and properly disposed.<input type="checkbox"/> Avoid in-the-water hull scraping and any abrasive process that occurs underwater that may remove anti-fouling paint from the boat hull.<input type="checkbox"/> When washing above the waterline: detergents and cleaning compounds used should be phosphate-free and biodegradable and amounts should be kept to a minimum.<input type="checkbox"/> Prohibit the use of traditional sudsing cleaners that must be rinsed off and the use of detergents containing ammonia, sodium hypochlorite, chlorinated solvents, petroleum distillates, or lye.<input type="checkbox"/> Educate employees on negative impacts of traditional cleaners and supply biodegradable spray type cleaners that do not require rinsing.<input type="checkbox"/> Control all equipment, supplies, and trash.
Engine parts washing	<ul style="list-style-type: none"><input type="checkbox"/> Parts washing should be done in a container or parts washer with a lid to prevent evaporation. The parts should be rinsed or air dried over the parts cleaning container.<input type="checkbox"/> Prevent and contain spills and drips. Water soluble engine washing fluid should be treated in the same manner as other industrial wastewaters and either recycled or disposed of by a licensed waste hauler.

INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector Q: Water Transportation Facilities with Vehicle Maintenance Shops and/or Equipment Cleaning Operations

Table 2. BMPs for Potential Pollutant Sources Water Transportation Facilities with Vehicle Maintenance shops and/or Equipment Cleaning Operations (continued)

Pollutant Source	BMPs
Surface preparation, sanding, and paint removal	<ul style="list-style-type: none"> <input type="checkbox"/> Confine activities to designated areas outside drainage pathways and away from surface waters. <input type="checkbox"/> Enclose, cover, or contain blasting and sanding activities to the extent practical to prevent abrasives, dust, and paint chips, and equipment from reaching storm sewers or receiving water. <input type="checkbox"/> Hang plastic barriers or tarpaulins to contain debris. <input type="checkbox"/> Where feasible, cover drains, trenches, and drainage channels to prevent entry of blasting debris to the system. <input type="checkbox"/> Prohibit un-contained blasting or sanding activities performed over open water. <input type="checkbox"/> Where sanding is conducted in the water, cover the water near the vessel with floating traps or surround the immediate area with floating booms and remove debris with a skimmer. <input type="checkbox"/> Prohibit blasting or sanding activities performed during windy conditions which render containment ineffective. <input type="checkbox"/> Bottom paint removal should be conducted over an impermeable surface such as sealed asphalt or cement (not over open ground) with a retaining berm so that the wastewater can be contained. <input type="checkbox"/> Collect bottom paint residues for disposal by a licensed waste hauler. <input type="checkbox"/> Inspect and clean sediment traps to ensure the interception and retention of solids prior to entering the drainage system. <input type="checkbox"/> Use vacuum sanding systems to collect sanding dust as it is created. <input type="checkbox"/> Sweep accessible areas of the drydock to remove and properly dispose of debris and spent sandblasting material prior to flooding. <input type="checkbox"/> Collect spent abrasives routinely and store under a cover to await proper disposal. <input type="checkbox"/> Store and re-use/recycle used strippers. Solvent strippers, particularly stripping baths, can generally be reused several times before their effectiveness is diminished. <input type="checkbox"/> Use environmentally-sensitive chemical paint strippers. <input type="checkbox"/> Inspect the area regularly to ensure BMPs are implemented. <input type="checkbox"/> Train employees on waste control and disposal procedures.
Painting	<ul style="list-style-type: none"> <input type="checkbox"/> Confine activities to designated areas outside drainage pathways and away from surface waters. <input type="checkbox"/> Enclose, cover, or contain painting activities to the maximum extent practical to prevent overspray and related debris/equipment from reaching surface waters. <input type="checkbox"/> Hang plastic barriers or tarpaulins during blasting or painting operations to contain debris. <input type="checkbox"/> Prohibit uncontained spray painting activities over open water. <input type="checkbox"/> Prohibit spray painting activities during windy conditions which render containment ineffective. <input type="checkbox"/> Use spray equipment that delivers more paint to the target and less overspray. <input type="checkbox"/> Mix paints and solvents in designated areas away from drains, ditches, piers, and surface waters, preferably indoors or under cover. <input type="checkbox"/> Have absorbent and other cleanup items readily available for immediate cleanup of spills. <input type="checkbox"/> Allow empty paint cans to dry before disposal. <input type="checkbox"/> Store paint and paint thinner away from traffic areas to avoid spills.

INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector Q: Water Transportation Facilities with Vehicle Maintenance Shops and/or Equipment Cleaning Operations

Table 2. BMPs for Potential Pollutant Sources Water Transportation Facilities with Vehicle Maintenance shops and/or Equipment Cleaning Operations (continued)

Pollutant Source	BMPs
Painting (continued)	<ul style="list-style-type: none"> <input type="checkbox"/> Recycle paint, paint thinner, and solvents. <input type="checkbox"/> Establish and implement effective inventory control to reduce paint waste, including tracking date received and expiration dates. <input type="checkbox"/> Store waste paint, solvents, and rags in covered containers to prevent evaporation to the atmosphere. <input type="checkbox"/> Use solvents with low volatility and coatings with low VOC content; use high transfer efficiency coating techniques such as brushing and rolling to reduce overspray and solvent emissions. <input type="checkbox"/> Train employees on proper painting and spraying techniques.
Drydock maintenance	<ul style="list-style-type: none"> <input type="checkbox"/> Clean and maintain drydock on a regular basis to minimize the potential for pollutants in the stormwater runoff. <input type="checkbox"/> Sweep accessible areas of the drydock to remove and properly dispose of debris and spent sandblasting material prior to flooding. <input type="checkbox"/> Collect wash water to remove solids and metals for disposal by a licensed waste disposal company. Clean the remaining areas of the dock after a vessel has been removed and the dock raised. <input type="checkbox"/> Remove waste, including floatable and other low-density waste (wood, plastic, insulations, etc.), and place in closed containers for disposal. <input type="checkbox"/> Have absorbent materials and oil containment booms readily available to contain/clean up any spills.
Drydock operations	<ul style="list-style-type: none"> <input type="checkbox"/> Control all equipment, supplies, and waste. <input type="checkbox"/> Use plastic barriers beneath the hull, between the hull and drydock walls for containment. <input type="checkbox"/> Use plastic barriers hung from the flying bridge of the drydock, from the bow or stern of the vessel, or from temporary structures for containment. <input type="checkbox"/> Weight the bottom edge of the containment tarpaulins or plastic sheeting during a light breeze. <input type="checkbox"/> When sandblasting (scuppers, railings, freeing ports, ladders, and doorways), use plywood and/or plastic sheeting to cover open areas between decks. <input type="checkbox"/> Install tie rings or cleats, cable suspension systems, or scaffolding to make implementation containment easier. <input type="checkbox"/> Inspect the maintenance area regularly to ensure BMPs are implemented. <input type="checkbox"/> Train employees on waste control and disposal procedures.
Vehicle and equipment fueling	<p>Stationary fueling areas</p> <ul style="list-style-type: none"> <input type="checkbox"/> Conduct fueling operations (including the transfer of fuel from tank trucks) on an impervious or contained pad and under a roof or canopy where possible. Covering should extend beyond spill containment pad to prevent rain from entering. <input type="checkbox"/> When fueling in uncovered area, use concrete pad (asphalt is not chemically resistant to the fuels being handled). <input type="checkbox"/> Use drip pans where leaks or spills of fuel can occur and where making and breaking hose connections. <input type="checkbox"/> Use fueling hoses with check valves to prevent hose drainage after filling. <input type="checkbox"/> Keep spill cleanup materials readily available. <input type="checkbox"/> Clean up spills and leaks immediately. <input type="checkbox"/> Use dry cleanup methods for fuel area rather than hosing down the fuel area. Sweep up absorbents as soon as spilled substances have been absorbed.

INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector Q: Water Transportation Facilities with Vehicle Maintenance Shops and/or Equipment Cleaning Operations

Table 2. BMPs for Potential Pollutant Sources Water Transportation Facilities with Vehicle Maintenance shops and/or Equipment Cleaning Operations (continued)

Pollutant Source	BMPs
Vehicle and equipment fueling (continued)	<ul style="list-style-type: none"> <input type="checkbox"/> Do not "top-off" fuel tanks. <input type="checkbox"/> Minimize/eliminate run-on into fueling areas with diversion dikes, berms, curbing, surface grading or other equivalent measures. <input type="checkbox"/> Collect stormwater runoff and provide treatment or recycling. <input type="checkbox"/> Provide curbing or posts around fuel pumps to prevent collisions from vehicles. <input type="checkbox"/> Regularly inspect and perform preventive maintenance on fuel storage tanks to detect potential leaks before they occur. <input type="checkbox"/> Inspect the fueling area for leaks and spills. <input type="checkbox"/> Train personnel on vehicle fueling <p>BMPs. Mobile fueling areas</p> <ul style="list-style-type: none"> <input type="checkbox"/> Use drip pan under the transfer hose. <input type="checkbox"/> Use fueling hoses with check valves to prevent hose drainage after filling. <input type="checkbox"/> Ensure the fueling vehicle is equipped with a manual shutoff valve. <input type="checkbox"/> Do not allow topping off of the fuel in the receiving equipment. <p>Train personnel on vehicle fueling BMPs.</p>
Engine maintenance and repairs	<p>Minimizing Exposure</p> <ul style="list-style-type: none"> <input type="checkbox"/> Conduct maintenance and repair operations over land, avoid repairs conducted over water whenever possible. <input type="checkbox"/> Move work indoors, if possible, or create temporary work enclosures using heavy-gauge polypropylene plastic stretched over a tubular metal frame (or comparable materials). Conduct the cleaning operations in an area with a concrete floor with no floor drainage other than to sanitary sewers or treatment facilities. <input type="checkbox"/> If operations are uncovered, perform them on concrete pad that is impervious and contained. <input type="checkbox"/> Park vehicles and equipment indoors or under a roof whenever possible and maintain proper control of oil leaks/spills. <input type="checkbox"/> Check vehicles closely for leaks and use pans to collect fluid when leaks occur. <p>Management of Runoff</p> <ul style="list-style-type: none"> <input type="checkbox"/> Use berms, curbs, or similar means to ensure that stormwater runoff from other parts of the facility does not flow over the maintenance area. <input type="checkbox"/> Collect the stormwater runoff from the cleaning area and providing treatment or recycling. <input type="checkbox"/> Discharge vehicle wash or rinse water to the sanitary sewer (if allowed by sewer authority), wastewater treatment, a land application site, or recycled on-site. DO NOT discharge washwater to a storm drain or to surface water. <p>Good Housekeeping</p> <ul style="list-style-type: none"> <input type="checkbox"/> Eliminate floor drains that are connected to the storm or sanitary sewer; if necessary, install a sump that is pumped regularly. Collected wastes should be properly treated or disposed of by a licensed waste disposal company. <input type="checkbox"/> If parts are dipped in liquid, remove them slowly to avoid spills. <input type="checkbox"/> Use drip plans, drain boards, and drying racks to direct drips back into a sink or fluid holding tank for reuse. <input type="checkbox"/> Drain all parts of fluids prior to disposal. Oil filters can be crushed and recycled.

INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector Q: Water Transportation Facilities with Vehicle Maintenance Shops and/or Equipment Cleaning Operations

Table 2. BMPs for Potential Pollutant Sources Water Transportation Facilities with Vehicle Maintenance shops and/or Equipment Cleaning Operations (continued)

Pollutant Source	BMPs
Engine maintenance and repairs (continued)	<ul style="list-style-type: none"> <input type="checkbox"/> Promptly transfer used fluids to the proper container; <input type="checkbox"/> Empty drip pans once they become full and dispose of the contents properly. <input type="checkbox"/> Cover and contain waste until it can be disposed, recycled, or reused. <input type="checkbox"/> Use suction-style oil pumps to drain crankcase oil, and use absorbent pads to remove oil from bilges. <input type="checkbox"/> Engine test tanks should never be drained to surface waters or septic systems. <input type="checkbox"/> Maintain an organized inventory of materials. <input type="checkbox"/> Eliminate or reduce the number and amount of hazardous materials and waste by substituting nonhazardous or less hazardous materials. <input type="checkbox"/> Label and track the recycling of waste material (e.g., used oil, spent solvents, batteries). <input type="checkbox"/> Store batteries and other significant materials inside. <input type="checkbox"/> Dispose of greasy rags, oil filters, air filters, batteries, spent coolant, and degreasers in compliance with RCRA regulations. <p>Inspections and Training</p> <ul style="list-style-type: none"> <input type="checkbox"/> Inspect the maintenance area regularly to ensure BMPs are implemented. <p>Train employees on waste control and disposal procedures.</p>
Engine and parts storage	<ul style="list-style-type: none"> <input type="checkbox"/> Store on an impervious surface such as sealed asphalt or cement, and cover to avoid contact with stormwater. <input type="checkbox"/> Use drip pans to prevent oil and grease from leaking onto the open ground. <input type="checkbox"/> Secure engines and parts.
Storing liquid fuels	<ul style="list-style-type: none"> <input type="checkbox"/> If area is uncovered, connect sump outlet to sanitary sewer (if possible) or an oil/water separator, catch basin filter, etc. If connecting to a sanitary sewer check with the system operator to ensure that the discharge is acceptable. If implementing separator or filter technologies ensure that regular inspections and maintenance procedures are in place. <input type="checkbox"/> Develop and implement spill plans. <input type="checkbox"/> Train employees in spill prevention and control. Above ground tank <input type="checkbox"/> Provide secondary containment, such as dikes, with a height sufficient to contain a spill (the greater of 10 percent of the total enclosed tank volume or 110 percent of the volume contained in the largest tank). <input type="checkbox"/> If containment structures have drains, ensure that the drains have valves, and that valves are maintained in the closed position. Institute protocols for checking/testing stormwater in containment areas prior to discharge. <input type="checkbox"/> Use double-walled tanks with overflow protection. <input type="checkbox"/> Keep liquid transfer nozzles/hoses in secondary containment area. <p>Portable containers/drums</p> <ul style="list-style-type: none"> <input type="checkbox"/> Store drums indoors when possible. <input type="checkbox"/> Store drums, including empty or used drums, in secondary containment with a roof or cover (including temporary cover such as a tarp that prevents contact with precipitation). <input type="checkbox"/> Provide secondary containment, such as dikes or portable containers, with a height sufficient to contain a spill (the greater of 10 percent of the total enclosed tank volume or 110 percent of the volume contained in the largest tank). <input type="checkbox"/> Clearly label containers with its contents.

INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector Q: Water Transportation Facilities with Vehicle Maintenance Shops and/or Equipment Cleaning Operations

Table 2. BMPs for Potential Pollutant Sources Water Transportation Facilities with Vehicle Maintenance shops and/or Equipment Cleaning Operations (continued)

Pollutant Source	BMPs
Material handling: Storing chemicals	<ul style="list-style-type: none"> <input type="checkbox"/> Store containerized materials (fuels, paints, solvents, etc.) in a protected, secure location and away from drains. <input type="checkbox"/> Clearly label all containers. <input type="checkbox"/> Specify which materials are stored indoors and use containment/enclosure for those stored outdoors. <input type="checkbox"/> Store reactive, ignitable, or flammable liquids in compliance with the local fire code.
Material handling: Storing chemicals (continued)	<ul style="list-style-type: none"> <input type="checkbox"/> Identify potentially hazardous materials, their characteristics, and use. <input type="checkbox"/> Implement an inventory control plan to control excessive purchasing, storage, and handling of potentially hazardous materials. <input type="checkbox"/> Keep records to identify quantity, receipt date, service life, users, and disposal routes. <input type="checkbox"/> Secure and carefully monitor hazardous materials to prevent theft, vandalism, and misuse of materials. <input type="checkbox"/> Use temporary containment where required by portable drip pans. <input type="checkbox"/> Use spill troughs for drums with taps. <input type="checkbox"/> Store used lead-acid batteries on an impervious surface, under cover, protected from weather and freezing. If a battery is dropped treat it as if it is cracked. Neutralize acid spills, such as with baking soda, and dispose of the resulting waste as hazardous. Develop and implement spill plans or spill prevention, containment, and countermeasure (SPCC) plans, if required for your facility. <input type="checkbox"/> Provide transfer of PFAS containing materials and their proper collection and disposal methods in the event of a release from their container. <input type="checkbox"/> Train employees in spill prevention and control and proper materials management.
Designated material mixing areas	<ul style="list-style-type: none"> <input type="checkbox"/> Mix paints and solvents in designated areas away from drains, ditches, piers, and surface waters. Locate designated areas preferably indoors or under a shed. <input type="checkbox"/> If spills occur: <ul style="list-style-type: none"> - Stop the source of the spill immediately. - Contain the liquid until cleanup is complete. - Deploy oil containment booms if the spill may reach surface water. - Cover the spill with absorbent material. - Keep the area well ventilated. - Dispose of cleanup materials in the same manner as the spilled material. - Do not use emulsifier or dispersant.
Shipboard process water handling	<ul style="list-style-type: none"> <input type="checkbox"/> Keep process and cooling water used aboard ships separate from sanitary wastes to minimize disposal costs for the sanitary wastes. <input type="checkbox"/> Keep process and cooling water from contact with spent abrasives and paint to avoid discharging these pollutants. <input type="checkbox"/> Inspect connecting hoses for leaks.
Shipboard sanitary waste disposal	<ul style="list-style-type: none"> <input type="checkbox"/> Discharge sanitary wastes from the ship being repaired to the yard's sanitary system or dispose of by a commercial waste disposal company. <input type="checkbox"/> Develop and implement spill plans. <input type="checkbox"/> Train employees in appropriate material transfer procedures, including spill prevention and containment activities.

INDUSTRIAL STORMWATER FACT SHEET SERIES

Sector Q: Water Transportation Facilities with Vehicle Maintenance Shops and/or Equipment Cleaning Operations

Table 2. BMPs for Potential Pollutant Sources Water Transportation Facilities with Vehicle Maintenance shops and/or Equipment Cleaning Operations (continued)

Pollutant Source	BMPs
Material	<ul style="list-style-type: none"> <input type="checkbox"/> Anti-freeze: Re-use or dispose to a sanitary sewer (if permitted) or by a waste transporter permitted to handle this waste. <input type="checkbox"/> Used lead-acid batteries: Disposal by an approved recycler. <input type="checkbox"/> Waste oil: Removed by a permitted waste oil transporter or used in a waste oil heater on-site. <input type="checkbox"/> Oil filters: Crush or puncture and hot-drain by placing the filter in a funnel over an appropriate waste collection container to allow the excess petroleum product to drain into the container. Drained filters should be collected and recycled when possible. Only filters that have been crushed or hot-drained to remove all excess oil may be disposed of as solid waste.
Material (continued)	<ul style="list-style-type: none"> <input type="checkbox"/> Mercury lamps and switches: Spent fluorescent bulbs, other mercury lamps, and mercury switches are hazardous waste. They should be stored safe from breakage and recycled or disposed as hazardous waste. <input type="checkbox"/> Fiber reinforced plastic (epoxy and polyester resins) Small amounts of unused resins may be catalyzed prior to disposal as solid waste. However, catalyzation is not an acceptable method of disposing of outdated or unneeded resin stores. These materials must be treated as hazardous waste and disposed of by a licensed waste disposal company. <input type="checkbox"/> Common solvents such as acetone or methylene chloride evaporate easily and should be kept in covered containers. <input type="checkbox"/> Glue and adhesives: Residual amounts of glues and adhesives remaining in empty caulking tubes may be disposed of as solid waste. All other glue and adhesive related wastes must undergo a determination for hazardous waste characteristics. Non-hazardous glues and adhesives in liquid form cannot be disposed of as solid waste and should be used for their originally intended purpose. <input type="checkbox"/> Paints, waste diesel, kerosene, and mineral spirits: Disposal should be performed by a licensed waste transporter. These waste products should not be allowed to evaporate; poured on the ground; disposed of in storm sewers, septic systems, or POTWs; or discharged to surface waters. <input type="checkbox"/> Waste gasoline: When possible, filter and use as fuel. It should not be allowed to evaporate; poured on the ground; disposed of in storm sewers, septic systems, or sanitary sewers; or discharged to surface waters. It should be removed from site by a licensed waste transporter. <input type="checkbox"/> Trash and other solid waste: All trash and solids should be contained and disposed of appropriately in covered trash cans or recycling receptacles. <input type="checkbox"/> Plastic barriers and tarpaulins: Properly store plastic barriers and tarpaulins for reuse or disposal.
Bilge and ballast water	<ul style="list-style-type: none"> <input type="checkbox"/> Collect and dispose of bilge and ballast waters which contain oils, solvents, detergents, or other additives to a licensed waste disposal company.

What if activities and materials at my facility are not exposed to precipitation?

The industrial stormwater program requires permit coverage for a number of specified types of industrial activities. However, when a facility is able to prevent the exposure of ALL relevant activities and materials to precipitation, it may be eligible to claim no exposure and qualify for a waiver from permit coverage.

If you are regulated under the industrial permitting program, you must either obtain permit coverage or submit a no exposure certification form, if available. Check with your permitting authority for additional information as not every permitting authority program provides no exposure exemptions.

Where do I get more information?

For additional information on the industrial stormwater program see
www.epa.gov/npdes/stormwater/msgp.

A list of names and telephone numbers for each EPA Region or state NPDES permitting authority can be found at
www.epa.gov/npdes/stormwatercontacts.

References

Information contained in this Fact Sheet was compiled from EPA's past and current Multi-Sector General Permits and from the following sources:

- ◆ Florida Department of Environmental Protection. 2003. Florida's Clean Marina Program.
www.dep.state.fl.us/cleanmarina/about.htm
- ◆ Liebl, David S. 2002. Environmental Best Management Practices for Marinas and Boat Yards. Prepared for Solid and Hazardous Waste Education Center, University of Wisconsin.
www3.uwm.edu/Dept/shwec/publications/cabinet/LIEBL/MarinasandBoatyards.pdf
- ◆ Minnesota Pollution Control Agency. 1997. Managing Marina Waste. Hazardous Waste Division Fact Sheet #4.24.
www.pca.state.mn.us/waste/pubs/4_24.pdf
- ◆ Tanski, Jay. "Stormwater Runoff Best Management Practices for Marinas: A Guide for Operators."
www.ncseagrant.org/files/PracticesforMarinas.pdf
- ◆ U.S. EPA, Office of Compliance. September 1997. Sector Notebook Project: Profile of the Water Transportation Industry. EPA/310-R-97-003
www.epa.gov/compliance/resources/publications/assistance/sectors/notebooks/water.html
- ◆ U.S. EPA, Office of Science and Technology. 1999. Preliminary Data Summary of Urban Stormwater Best Management Practices. EPA-821-R-99-012
www.epa.gov/OST/stormwater/
- ◆ U.S. EPA, Office of Wastewater Management. *NPDES Stormwater Multi-Sector General Permit for Industrial Activities (MSGP)*.
www.epa.gov/npdes/stormwater/msgp
- ◆ Virginia Institute of Marine Science, College of William and Mary. February 2001. "Marina Management" in Virginia Clean Marina Guidebook. VIMS Educational Series No. 49. VSG-01-03. www.vims.edu/adv/cleanmarina/guidebook.htm

Granite State Mineral Stormwater Pollution Prevention Plan

APPENDIX R Copy of Multi-Sector General Permit

A copy of the 2021 edition of the Multi-Sector General Permit (MSGP) for stormwater discharges from industrial activities **IS MAINTAINED ON SITE IN A SEPARATE BINDER.**

Members of the Pollution Prevention Team should also be advised of the availability of the MSGP electronically at the following web address:

<https://www.epa.gov/npdes/stormwater-discharges-industrial-activities-epas-2021-msgp>