

# **Stormwater Pollution Prevention Plan**

**for:**

**Market Street Marine Terminal  
555 Market Street  
Portsmouth, NH 03801  
(603) 436-8500**

## **SWPPP Contact:**

**Geno Marconi  
Director of Ports and Harbors  
Market Street Marine Terminal  
555 Market Street  
Portsmouth, NH 03801  
(603) 436-8500**

## **SWPPP Preparation Date:**

**June 2015**



## Contents

<b>SECTION 1: FACILITY DESCRIPTION AND CONTACT INFORMATION</b> .....	<b>4</b>
1.1 Facility Information .....	4
1.2 Contact Information/Responsible Parties .....	5
1.3 Stormwater Pollution Prevention Team .....	5
1.4 Activities at the Facility .....	6
1.5 General Location Map .....	9
1.6 Site Map.....	9
<b>SECTION 2: POTENTIAL POLLUTANT SOURCES</b> .....	<b>10</b>
2.1 Potential Pollutants from On-Site Industrial Activities .....	10
2.2 Sampling Data Summary .....	11
<b>SECTION 3: STORMWATER CONTROL MEASURES</b> .....	<b>13</b>
3.1 Structural Controls .....	13
3.2 Best Management Practices (BMPs).....	14
3.2.1 Minimizing Exposure .....	14
3.2.2 Good Housekeeping.....	15
3.2.3 Maintenance.....	16
3.2.4 Spill Prevention and Response.....	17
3.2.5 Erosion and Sediment Controls .....	20
3.2.6 Management of Runoff .....	20
3.2.7 Outdoor Storage of Salt .....	21
3.2.8 MSGP Sector-Specific Non-Numeric Effluent Limits .....	21
3.2.9 Employee Training .....	21
3.2.10 Non-Stormwater Discharges .....	22
3.2.11 Waste, Garbage and Floatable Debris .....	22
3.2.12 Dust Generation and Vehicle Tracking of Industrial Materials .....	22
<b>SECTION 4: SCHEDULES AND PROCEDURES FOR MONITORING</b> .....	<b>24</b>
4.1 Sample Locations .....	24
4.2 Measurable Storm Events.....	25
4.3 Sampling Schedule .....	25
4.3.1 Benchmark Monitoring.....	25
4.3.1.1 Additional Benchmark Monitoring Procedures.....	26
4.3.2 Impaired Waters Monitoring .....	26
4.3.3 Assessment of SWTUs.....	26
4.3.4 Annual Effluent Limitations Guidelines Monitoring .....	26
4.3.5 State or Tribal-specific Monitoring.....	26
4.4 Sampling Parameters .....	26
4.5 Sampling Procedures .....	27
<b>SECTION 5: INSPECTIONS</b> .....	<b>29</b>
5.1 Routine Facility Inspections.....	29
5.3 Quarterly Visual Assessments.....	30
<b>SECTION 6: DOCUMENTATION TO SUPPORT ELIGIBILITY CONSIDERATIONS UNDER OTHER FEDERAL LAWS</b> .....	<b>32</b>

6.1	Documentation Regarding Endangered Species .....	32
6.2	Documentation Regarding Historic Properties.....	32
6.3	Documentation Regarding NEPA Review .....	32
<b>SECTION 7: SWPPP CERTIFICATION .....</b>		<b>33</b>
<b>SECTION 8: SWPPP MODIFICATIONS .....</b>		<b>34</b>
<b>SWPPP APPENDICES.....</b>		<b>35</b>
Appendix A - General Location Map		
Appendix B - Site & Outfall Maps		
Appendix C - Portsmouth Tax Maps		
Appendix D - Notice of Intent		
Appendix E - Primary SIC Code 4491 Marine Cargo Handling		
Appendix F - MSGP Monitoring Requirements		
Appendix G - Stormwater Monitoring Sampling Data		
Appendix H - Benchmark Exceedances Log		
Appendix I - EPA Impaired Water Report		
Appendix J - 2008 MSGP Monitoring Guidance for Discharges into Impaired Waters		
Appendix K - Employee Training Documentation		
Appendix L - Routine Facility Inspection Documentation		
Appendix M - Quarterly Visual Monitoring Inspection Documentation		
Appendix N - Comprehensive Site Inspection Documentation		
Appendix O - Assessment or Monitoring Schedule Deviation Reports		
Appendix P - Maintenance Logs		
Appendix Q - Documentation of Significant Spills, Leaks or Other Releases		
Appendix R - Documentation regarding Endangered Species		
Appendix S - Documentation regarding Historic Properties		
Appendix T - SWPPP Modification Log		
Appendix U - Oil Spill Response Plan		
Appendix V - EPA Fact Sheets for Sectors N & Q		
Appendix W - 2008 Multi-Sector General Permit (MSGP)		
Appendix X - Flood Insurance Rate Map		
Appendix Y - Downstream Defender Operations and Maintenance Manual		

## SECTION 1: FACILITY DESCRIPTION AND CONTACT INFORMATION

### 1.1 Facility Information

#### Facility Information

Name of Facility: Market Street Marine Terminal

Street: 555 Market St.

City: Portsmouth State: NH ZIP Code: 03801

County or Similar Subdivision: Rockingham County

Permit Tracking Number: NHR05BN24 (if covered under a previous permit)

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

Latitude:

Longitude:

1. 43 ° 04 ' 59" N (degrees, minutes, seconds)

1. 70 ° 45 ' 43" W (degrees, minutes, seconds)

2.    °   '   " N (degrees, minutes, decimal)

2.    °   '   " W (degrees, minutes, decimal)

3.    .    .    ° N (decimal)

3.    .    .    ° W (decimal)

Method for determining latitude/longitude (check one):

USGS topographic map (specify scale: \_\_\_\_\_)

EPA Web site

GPS

Other (please specify): \_\_\_\_\_

Is the facility located in Indian Country?  Yes  No

If yes, name of Reservation, or if not part of a Reservation, indicate "not applicable." Not applicable

Is this facility considered a Federal Facility?  Yes  No

Estimated area of industrial activity at site exposed to stormwater: 12.4 (acres)

#### Discharge Information

Does this facility discharge stormwater into an MS4?  Yes  No

If yes, name of MS4 operator: N/A

Name(s) of water(s) that receive stormwater from your facility: Piscataqua River

Are any of your discharges directly into any segment of an "impaired" water?  Yes  No

If Yes, identify name of the impaired water (and segment, if applicable): Lower Piscataqua River

Identify the pollutant(s) causing the impairment: dioxins, enterococcus bacteria, estuarine bioassessments, mercury, PCBs

For pollutants identified, which do you have reason to believe will be present in your discharge? \_\_\_\_\_

mercury, PCBs

For pollutants identified, which have a completed TMDL? Enterococcus Bacteria

Do you discharge into a receiving water designated as a Tier 2 (or Tier 2.5) water?  Yes  No

Are any of your stormwater discharges subject to effluent guidelines?  Yes  No

If Yes, which guidelines apply? N/A

Primary SIC Code or 2-letter Activity Code: 4491

**(refer to Appendix D of the permit & Appendix E of the SWPPP)**

Identify your applicable sector and subsector: Sector Q – Water Transportation

## 1.2 Contact Information/Responsible Parties

### Facility Operator (s):

Name: **Geno Marconi, Port Director**

Address: **555 Market St.**

City, State, Zip Code: **Portsmouth, NH 03801**

Telephone Number: **603-436-8500**

Email address: **g.marconi@peasedev.org**

Fax number: **603-436-2780**

### Facility Owner (s):

Name: **State of NH, Pease Development Authority - Division of Ports and Harbors (PDA-DPH)**

Address: **555 Market St.**

City, State, Zip Code: **Portsmouth, NH 03801**

Telephone Number: **603-436-8500**

Email address: **g.marconi@peasedev.org**

Fax number: **603-436-2780**

### SWPPP Contact:

Name: **Geno Marconi, Port Director**

Telephone number: **603-436-8500**

Email address: **g.marconi@peasedev.org**

Fax number: **603-436-2780**

## 1.3 Stormwater Pollution Prevention Team

Staff Names	Individual Responsibilities
Geno Marconi, Port Director	Coordinator of the SWPPP BMP Plan and overseer for annual review of the SWPPP; Inspector
Whitney Anderson, Operations Assistant	Primary spill response coordinator, Inspector
Tracy Shattuck, Chief Harbormaster	Secondary spill response coordinator
Jared Sheehan, PDA Engineering	SWPPP updates and annual training

## 1.4 Activities at the Facility

The Market Street Marine Terminal (Terminal) is a 12.4± acre seaport/bulk terminal located near downtown Portsmouth, New Hampshire. The site is used for the transportation of dry bulk (such as road salt), break bulk (e.g., power plant equipment, machinery, structural steel and other palletized materials), and containerized cargoes, as well as the berthing of vessels, and the re-supply of ship stores. The cargo marshalled and stored on-site prior to transport consists of road salt and other dry bulk materials. In addition, the Division of Ports and Harbors' (Division or Port) offices, maintenance facility and warehouse are located at the site, and the Isles of Shoals Steamship Company operates out of a wooden wharf on the southern end of the property. The City of Portsmouth fire boat is also berthed at one of the Terminal's docks.

### Site Activities Covered Under this SWPPP

The Port has two main tenants who perform loading, unloading, construction and storage activities at the Terminal. These tenants are International Salt Corporation (road salt) and Cianbro Corporation Industries (Cianbro). Both have a presence at the Terminal year round. In addition, the Port contracts with other entities that perform loading and unloading activities only. These entities are granted a Right of Entry to operate at the Terminal for a period of limited duration. The operations of these two tenants and other entities, which do not store materials on-site, are described below.

### Cianbro Corporation

Cianbro Corporation (Cianbro) is constructing a new twelve span Sarah M. Long (SML) Bridge measuring 0.81 of a mile over the Piscataqua River [US Route 1/1A(By-Pass)] from Kittery, ME to Portsmouth, NH. The existing SML Bridge, located to the southeast, is to be demolished at the close of the project. The project also includes a lower level railway line. Cianbro is using the Terminal as a lay down, storage, and construction area for the duration of the construction of the new SML and the demolition of the existing SML. At the Terminal all marshalling, storage, and loading/unloading of materials and equipment for the construction and demolition of the SML is performed by Cianbro. A separate SWPPP associated with these operations has been prepared and is being implemented by Cianbro.

### Other Dry Bulk Cargoes

#### A. Road Salt – International Salt Corporation

##### 1. Type of Inbound Cargo (description, volume, number of ships):

Salt from Chile is this tenant's major inbound cargo at the Terminal. Local municipalities use the salt to clear the roads of ice and snow in winter months. International Salt Corporation, through a Right of Entry with the PDA, has one and one half (1.5) acres of lay-down area for salt storage. Green Valley Enterprises, Inc. oversees day to day operations for International Salt Corporation.

2. Method and Frequency of Transportation from Terminal (destination of cargo, number and type of trucks per day):

The salt is hauled from the Terminal by dump trucks and dump trailers. Most of the truck traffic approaches the Terminal from the Market Street Extension and the I95 interchange. Truck traffic varies depending on the season and the number of salt orders that are received and processed. Ordinarily the peak seasons to haul salt are the fall and winter months. During this peak period, truck traffic entering and departing loaded may top at eighty five (85) trucks per day.

3. Equipment at Terminal (type of equipment used in day to day operations):

Equipment used in day to day operations include front end loaders and dump trucks

4. Loading from Terminal (how cargo is loaded onto trucks):

Salt is loaded onto dump trucks using front end loaders. Trucks are required to cover their loads before leaving the terminal.

5. Marshalling at Terminal (how cargo is stacked, segregated and covered at the Terminal):

Salt is transported from ship side to the lay down area by dump truck. The salt is dumped on the paved area and the pile is shaped by using 2 front end loaders. Typically front end loaders are used to push the salt up and into a pile to maximize the height associated with the angle of repose of salt. Once the shaping of the storage pile is completed, International Salt hires a sub-contractor to cover the pile. A rip-stop plastic is used and the sections of plastic sheeting are stitched together using a textile backing tape on the seams. The covering is held in place with bags, made of the same plastic material, filled with salt for weight and "webbed" together over the pile by poly line.

6. Equipment for Discharging Ship (when and what additional equipment is brought in for ship discharge):

Additional equipment is brought to the Terminal a couple days ahead of time for ship discharge and removed shortly after discharge is completed. This equipment includes additional front end loaders, skid steer, dump trucks, and dump trailers.

7. Method of Movement from Ship Side (how cargo is moved from ship side to point of rest):

During discharge of the ship, the salt is loaded on the dump trucks and dump trailers with the front end loaders. The trucks and trailers transport the salt to the designated Terminal storage area and dump the salt on the pavement.

8. Method of Ship Discharge (how cargo is discharged from the ships hold to dock):

Ships cranes are used to discharge the ship. "Clam Shell" buckets are rigged to the cranes and the salt is dropped directly onto the deck of the pier. Salt is discharged at a rate of approximately 1,000 tons per hour. During discharge the outer perimeter of the pier alongside the ship is lined with concrete jersey barriers to help contain the salt temporarily staged on the pier.

9. General Oversight of Cargo (day to day oversight of operations and storage):

The salt storage pile is observed visually by Green Valley employees at the time of discharge and during stacking operations.

Day to day out loading of salt involves one (1) or two (2) Green Valley employees who control and observe the salt placement into trucks. All trucks are weighed and recorded at the scale house.

As the storage pile is uncovered for access to the salt, the plastic covering which is removed is placed into a dumpster for removal and disposal off-site.

**B. Other Cargo**

The Terminal is available to anyone who requires the need to load or unload a vessel. As such, a number of various cargos pass through the Terminal every year. These include, but are not limited to, construction materials such as concrete and steel, machinery, windmills and standardized containers. Each entity pays for and supplies all equipment and personnel to facilitate the loading or unloading of a vessel. The Port oversees operations to ensure safety and compliance with contractual requirements, as well as compliance with local, state and federal regulations including compliance with this SWPPP.

Typical outbound cargo operations include the transportation of the cargo to the Terminal, which is then brought to one of the two wharfs. This cargo is temporarily deposited onto the surface of the wharf before loading onto the vessel, or it may be loaded directly onto the vessel depending on the cargo and equipment utilized.

Typical inbound cargo operations are very similar to outbound cargo operations. A vessel will either load a cargo directly onto a vehicle or deposit the cargo onto the surface of one of the two wharfs depending on the cargo and equipment utilized. Once the cargo is loaded onto vehicles, it is transported out of the Terminal on to its next destination.

**C. Activities Applicable to All Cargoes**

In each case, the transporter is responsible for meeting all provisions of the SWPPP to prevent impacts to the receiving water. This includes cleanup of the wharfs and travel ways once loading and unloading operations are complete. In addition, no maintenance of vehicles or equipment is allowed on-site, except fueling and any lubrication of equipment that may be required during normal operations.

1. Maintenance of Yard Equipment (oil changes and preventive maintenance and repair of day to day equipment):

The only maintenance performed on-site is greasing and maintaining lube oil levels. A limited amount of "tube" grease and lubricating oil are stored in an enclosed storage unit adjacent to the scale house. Regular scheduled maintenance for all equipment is performed at an off-site facility.



2. Fueling of Equipment (origin, transportation and transfer):

Most equipment fueled at the Terminal on either a permanent or temporary basis is fueled under contract with authorized licensed fuel vendors. Each such fuel vendor has a contractual "Right of Entry" with the PDA-DPH to dispense fuel at the facility that requires each such fuel vendor to meet all state and federal requirements. Occasionally, self-fueling by other entities is permitted on a limited basis pursuant to a Right of Entry provided secondary containment of the fuel tank is used.

3. Security for the Terminal is contracted with US Security Associates, Inc. An 8-foot high chain-link fence with barbed wire surrounds the perimeter of the Terminal. A security guard is stationed at the front gate during hours of operation. When the gate guard is not present, the front gate is closed and locked. Entrance into the Terminal is granted to Green Valley employees and/or persons having business with International Salt Corporation or any other person or entity conducting authorized and permitted business at the Terminal in compliance with Federal Maritime security requirements, 33 CFR Subchapter H.

## 1.5 General Location Map

A copy of the general location map for this facility is included in Appendix A.

## 1.6 Site Map

A copy of the site map for this facility is included in Appendix B.

## SECTION 2: POTENTIAL POLLUTANT SOURCES

### 2.1 Potential Pollutants from On-Site Industrial Activities

The pollutants associated with the industrial activities exposed to stormwater are summarized below. See Appendix Q for incident reports regarding spills and leaks at the Terminal over the past three years.

Industrial Activity	Associated Pollutants	Pollutant Location with Impacted Outfalls
Material loading/unloading	Road salt, [for bridge construction see Cianbro SWPPP]	On wharfs and throughout Terminal Yard Outfalls 06, 07, 08, 09, 10, 11, 12
Outside salt storage	Road salt;	Northern Terminal Yard; Outfalls 10, 11
Outdoor fueling/lubrication	Fuel oil; lubricating and hydraulic oils	Terminal Yard; Outfalls 06, 07, 08, 09, 10, 11, 12
Bridge construction	Concrete casting and form release oils	Southern Terminal Yard; Outfall 12
Bridge construction	Diesel; lubricating and hydraulic oils [see Cianbro SWPPP]	Terminal Yard; Outfalls 06, 07, 08, 09, 10, 11, 12 [see Cianbro SWPPP]

#### Material Loading and Unloading

Loading and unloading operations of salt and other materials take place at the wharfs or Terminal laydown areas. Truck traffic occurs on paved areas throughout the Terminal yard. Material lost during loading and unloading may collect on the dock, paved surfaces, and equipment and be carried away by stormwater. Construction operations are addressed in the SWPPP prepared by Cianbro.

#### Material (Salt) Storage

Road salt is stored outside in a large pile in the northern portion of the Terminal Yard and east of the warehouse, as shown on the Site Map (Appendix B). Approximately 125,000 tons of road salt is stored at the Terminal annually. The salt storage pile is covered when not in use. There is potential for salt spilled or blown onto the ground during loading and unloading to be dissolved in stormwater runoff, resulting in high salt concentrations in stormwater from the Site. Note that all outfalls at the Terminal discharge to the tidally-influenced Piscataqua River, which is a saltwater marine waterbody.

### **Vehicle and Equipment Fueling**

With the exception of refueling, containerized materials subject to spills and leaks are not used outdoors at the Terminal. The majority of equipment on-site is fueled under contract with authorized licensed fuel vendors. Spilled fuel can contaminate discharge if exposed to stormwater. Precautions and spill prevention and control are the responsibility of the authorized licensed fuel vendor, who is required to contain and clean up a release of fuel immediately. Small fuel tanks are also brought onsite periodically to fuel equipment associated with whatever project is taking place at either of the two wharfs. This is typically done for convenience and the tanks are onsite for only a limited period of time. Cianbro owns and operates a 500 gallon diesel fuel tank. (Refueling by Cianbro is addressed in their SWPPP.)

### **Construction Activities**

Construction activities for the SML are addressed in the SWPPP prepared by Cianbro.

## **2.2 Sampling Data Summary**

Stormwater monitoring data is collected on a quarterly basis. Appendix G contains summaries of stormwater sampling results for Outfalls 02 and 04/05 back to January of 2010. Beginning in Quarter 4 of 2012, sampling will take place at outfalls 10, 11 and 12. These results will also be included in Appendix G. If Outfall 10 is inaccessible due to high tide, the sample will be taken at DMH-1, which is located downstream of the hydrodynamic particle separator (SWTU-1) but upstream of Outfall 10. The Division will also attempt to sample stormwater representative of substantially identical outfalls 06, 07, 08, and 09. However, the outfalls are accessible only during an extremely low tide, and, even then, there are personnel safety issues associated with access beneath the wharf. Therefore, the Division intends to use CB14 as the sampling point for these outfalls as this catch basin is the closest upstream sampling point available. The procedure for sampling CB14 includes suspending a collection container below the silt sack inside the catch basin. For sampling, the grate, silt sack, and collection container will be lifted out of the catch basin structure, and the sample will be drawn from the collection container. See Sections 4.1 and 4.5 below for further information.

The required testing parameters for Water Transportation Facilities (Sector Q) are:

- Total Aluminum
- Total Iron
- Total Lead
- Total Zinc

In addition to the monitoring described above, the Division also tests for the presence of mercury and PCB's since the Piscataqua River has been deemed impaired for these parameters.

The Division continues to sampling stormwater discharges quarterly during MSGP qualified storm events from Outfalls 10, 11, 12 and 6. Testing will include total and dissolved metals for the Sector N and Sector Q metals plus mercury and PCB's.

Past and current testing results indicate that levels of Aluminum, Iron, Lead, Zinc, Copper, TSS and, COD in the stormwater runoff are above benchmark values in some cases. Since 2011 concentrations of PCB's are usually below analytical detection limits. Since 2011 Mercury concentrations have generally remained below benchmark levels and are often below detection limits. Adhering to the Best Management Practices (BMP's) in the SWPPP, the recent installation of three hydrodynamic particle separators and site re-grading to enhance drainage efficiency in the yard are intended to minimize pollutants in the stormwater runoff.

## **SECTION 3: STORMWATER CONTROL MEASURES**

The Terminal will minimize the potential for adverse impacts to stormwater from the on-site industrial activities (including loading and unloading, storage of raw materials, and refueling of vehicles) by implementing structural controls and stormwater best management practices (BMPs).

### **3.1 Structural Controls**

#### **3.1.1 Catch Basins**

Oil trap structures have been installed in Catch Basins 1, 6, 14, 15, 16, 17, 18, 19, 21, 22, and 23 to prevent oil and other floatables from reaching the outfalls. These catch basins also have sumps to trap solids for removal prior to entering the receiving waters. Sediment sacks have been installed on all catch basins to filter out sediment and the adhering pollutants from runoff before it enters the drainage system. Sediments removed from the sediment sacks are deposited into a dumpster provided by Division's on-call spill response contractor. Prior to disposal by the Division's on-call spill response contractor, these sediments are tested to determine their makeup and associated disposal requirements.

#### **3.1.2 Site Grading and Berming**

In the fall of 2012 in order to define the limits of these operations as well as to control process water and stormwater runoff, an asphalt berm was constructed. This asphalt berm directs stormwater to CB23 and stormwater treatment unit #3 prior to discharge to the river.

An asphalt berm was also constructed along the eastern shore west of the main wharf to direct stormwater runoff to either stormwater treatment units #1 or #2 prior to discharge to the river. This berm helps collect runoff from the area east of the warehouse, where the salt storage pile is currently located. Where paving joins the main wharf, the approach to the pier is graded to shed water away from the river and back onsite toward the treatment units.

#### **3.1.3 Stormwater Treatment Units**

As part of the 2012 upgrades to the Terminal's stormwater management system the Division installed three 6-foot diameter hydrodynamic particle separators (Stormwater Treatment Units (SWTU) to help treat stormwater runoff from the Terminal yard prior to discharge to the Piscataqua River. Flow from the northern portion of the Terminal Yard is treated by SWTU 1 and SWTU 2, which discharge to Outfalls 10 and 11, respectively. Flow from the southern portion of the Terminal Yard is treated by SWTU 3, which discharges to Outfall 12. The total surface area served by SWTUs 1, 2 and 3 is approximately 381,000 square feet, including a significant area at the northern portion of the yard from which stormwater previously discharged as sheet flow. The particle separators remove suspended particulate matter as well as surface floatables, including oil. See Appendix Y for more details regarding SWTU operation and maintenance.

## 3.2 Best Management Practices (BMPs)

### 3.2.1 Minimizing Exposure

When possible, industrial activities are conducted indoors to eliminate potential impacts to stormwater from possible pollutants associated with those activities. For industrial activities that are conducted outdoors, such as storage of materials, refueling, etc., BMPs will be in place to minimize potential pollutants in the stormwater discharge.

#### Activities Conducted Indoors

The Division's facility includes a large, enclosed warehouse building (approximately 25,000 sq. ft) that includes a workshop area with a trench drain connected to the City of Portsmouth sewer system, which drain is permitted by the City. Several industrial activities required to support the operations at the Terminal (e.g., equipment/vehicle maintenance and storage) and secondary activities (e.g., vessel washing and painting) are only conducted indoors in the warehouse/shop to eliminate the potential for exposure to stormwater.

The following activities are conducted only within the warehouse/maintenance area:

- Vessel washing and maintenance
- Vehicle and equipment washing and maintenance
- Cleaning of navigation aids
- Small vessel (30 feet or less), vehicle or equipment painting
- Equipment storage
- Storage of refuse
- Storage of Division vessels, vehicles and equipment

Procedures are implemented inside the warehouse to eliminate the potential for pollutants from the indoor activities to migrate outside of the building and adversely impact stormwater, as follows:

- The warehouse doors when practical are kept closed during windy conditions and/or precipitation events;
- Employees are trained in recognizing potential pollutants and appropriate material handling procedures;
- Good housekeeping procedures are implemented (e.g., sweeping/vacuuming of surfaces, proper disposal of wastes and cleaning supplies, etc.);
- Spill response materials are available in the building and employees are trained in their use;
- Inventory is controlled to minimize waste and properly store materials; and
- Routine inspections are done by employees to ensure that pollutants are not being tracked outdoors.

### **3.2.2 Good Housekeeping**

Good housekeeping practices are designed to maintain a clean and orderly work environment. Often the most effective first step towards preventing pollution in stormwater from industrial sites involves merely using common sense to improve the facility's basic housekeeping methods. The following are basic operation and maintenance BMPs that are currently incorporated in the good housekeeping program.

#### **Material Loading and Unloading**

- Be aware of dust fumes. These are signs that material is being lost during unloading/loading operations. Piles or surfaces may need to be misted to keep dust down until the surfaces can be cleaned.
- Loading and unloading areas and travelways are mechanically swept to remove dropped material and debris upon completion of loading/unloading of salt and other delivered materials.

#### **Spills and leaks from vehicles and equipment**

- Clean-up of equipment spills and leaks is done promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants.
- Drip pans and absorbents are used under or around leaky vehicles and equipment; or where feasible, such equipment is stored indoors.
- Vehicles and equipment are checked daily for leaks and leaks are fixed promptly. Common areas for leaks are valves, pumps, flanges, and connections.

#### **Operation and Maintenance**

- Pick up litter and debris daily from around the Terminal Yard.
- The Port has a heavy-duty vacuum sweeper that routinely (Approximately 2x per week, weather permitting) cleans the impervious surfaces in the yard including the travel way and parking area at the entrance of the Terminal (area in front of guard shack and warehouse). More frequent sweeping is done when on-site construction or ship loading/unloading is occurring.
- Sediment sacks are installed in all catch basins in the main Terminal yard outside of the bermed area to minimize the collection of sediments in the stormwater system.
- Dry and clean floors and ground surfaces are maintained by using brooms, shovels, vacuum cleaners, or cleaning machines.
- Pickup and disposal of garbage and waste is scheduled for collection every Friday or as necessary.
- Spill cleanup procedures are understood by employees (see Spill Prevention and Response BMP below).
- Equipment is regularly checked to ensure proper function.
- Routine inspections are done to identify leaks or conditions that could lead to discharges of chemicals or contact of stormwater with raw materials, intermediate materials, waste materials, or products (see Visual Inspection BMP below).

### **Material Storage Practices**

- Division containers, drums, and bags are stored indoors.
- Containers, drums, and bags used by tenants are stored away from direct traffic routes to prevent accidental spills. See Cianbro SWPPP for Cianbro BMPs.
- Responsibility of hazardous material inventory is assigned to a limited number of people who are trained to handle hazardous materials.
- Storage containers are stacked according to manufacturers' instructions to avoid damaging the containers from improper weight distribution.
- Storage containers are stored on pallets or similar devices to prevent corrosion of the containers which can result when containers come in contact with moisture on the ground.

### **Material Inventory Procedures**

- Maintain an up-to-date inventory of all potentially hazardous materials present on the site to prevent overstocking. Track where materials are stored and handled onsite
- Plainly label all containers to show the name and type of substance (e.g., "Used Oil," "Spent Solvents," "Fertilizers and Pesticides," etc.)

### **3.2.3 Maintenance**

The Division regularly maintains the structural controls, Terminal Yard, and Division equipment at the Terminal to minimize or prevent situations which might result in an adverse impact to stormwater. Other than fueling, lubrication and minor repairs (e.g., replacing broken fluid lines) all tenant equipment is maintained off-site.

#### **Daily Maintenance Procedure**

- Check incoming vehicles and equipment for leaking oils and fuels.
- Promptly repair defective vehicles and equipment found during inspections.
- Keep detailed records of any on-site leaking vehicles and equipment and the corrective action taken. Record test results and follow up with corrective action.



### **Weekly Maintenance Procedures**

- Inspect outdoor vehicle and equipment storage and parking areas for dripping engine and automotive fluids from parked vehicles and equipment.
- Inspect and remove sediment from sediment sacks in catch basins as necessary.
- Promptly repair defective sediment sacks found during inspections.
- Inspect and vacuum sediment from catch basin sumps if necessary.
- Inspect the salt pile for spilled, uncovered salt that may come in contact with stormwater.
- Clean up spilled salt and dispose of salt properly.

### **Monthly Maintenance Procedure**

- Remove oil, if necessary, from catch basins equipped with hoods
- Inspect and if necessary remove sediment and oil from the three hydrodynamic particle separators (SWTUs #1-#3). The Operations and Maintenance Manual for these treatment units is included in Appendix Y.
- Examine the site for erosion and sedimentation, including outfalls, non-paved areas, and the salt pile, if uncovered during stockpiling.

### **Annual Maintenance Procedures**

- Vacuum catch basin sumps

## **3.2.4 Spill Prevention and Response**

### **Spill Prevention and Response Program**

Spills and leaks together are one of the largest sources of potential stormwater pollutants, and in most cases are avoidable. Standard operating procedures such as safety and spill prevention procedures along with proper employee training can reduce these accidental releases. Also refer to the existing Oil Spill Plan which is posted in several locations throughout the Terminal including the scale house, Port offices and work areas, and the front gate guard shack (also included here in Appendix U).

### **Container Labeling Procedures**

- Plainly label all containers (e.g., "Used Oil," "Spent Solvents," Fertilizers and Pesticides," etc.) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur. Make sure labels are clearly written in large print with a permanent marker.

Types of containers that must be labeled include:

- Paints
- Fuels
- Solvents
- Antifreeze
- Batteries
- Waste Oil

- Create an inventory of labeled containers contents and location unless the substance is stored in its original container. Specify if the contents are hazardous.

### **Preventative Measures**

- Sealing of floor drains. The only floor drain in the warehouse is in the workshop area and it is connected to the City sewer system.
- Do not wash down work areas and spills with water. Clean up leaks, drips and other spills without large amounts of water. Use rags for small spills, a damp mop for general cleanup, and dry absorbent material for larger spills. Use the following BMPs:
  - Avoid hosing down the work area.
  - Collect leaking or dripping fluids in drip pans or containers. If different liquids are kept separate, the fluids are easier to recycle.
  - Keep a drip pan under the vehicle while unclipping hoses, unscrew filters, or remove other parts.
  - Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around.
- Use following BMPs to prevent stormwater contamination for specific hazardous and non-hazardous materials:
  - Anti-freeze: Re-use or dispose to a sanitary sewer (if permitted) or by a waste transporter permitted to handle this waste
  - Used lead-acid batteries: Disposal by an approved recycler
  - Waste oil: Removed by a permitted waste oil transporter
  - 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 must 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.
  - Mercury lamps and switches: Spent fluorescent bulbs, other mercury lamps, and mercury switches are hazardous waste. They must be stored safe from breakage and recycled or disposed as hazardous waste.
  - 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.
  - Common solvents: solvents such as acetone or methylene chloride evaporate easily and must be kept in covered containers
  - Glue and adhesives: Residual amounts of glue 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 must be used for their originally intended purpose.

- Paints, waste diesel, kerosene, and mineral spirits: Disposal must be performed by a licensed waste transporter. These waste products must not be allowed to evaporate; poured on the ground; disposed of in storm sewers, septic systems, or POTWs; or discharged to surface waters.
- Waste gasoline: When possible, filter and use as fuel. It must 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 must be removed from site by a licensed waste transporter.
- Trash and other solid waste: All trash and solids must be contained and disposed of appropriately in covered trash cans or recycling receptacles.
- Plastic barriers and tarpaulins: Properly store plastic barriers and tarpaulins for reuse or disposal.

### **Spill Prevention**

Refer to Cianbro's SWPPP for information relating to spill prevention.

### **Leak and Spill Response Procedures**

Leaks, spills, and other releases must be expeditiously stopped, contained and cleaned up.

- OIL SPILL PLAN (procedures in case of an oil spill and spill equipment). A copy of the "Oil Spill Response Plan" is included in Appendix U. The plan is visibly posted in several prominent locations throughout the Terminal including the scale house and Port offices. Oil spill "kits" are located at various locations at the Terminal. In particular;
  - Scale house
  - Potable water house
  - Port workshop
  - Port office

The Port also keeps an oil spill response trailer in the warehouse ready for use whenever a spill occurs. The trailer contains a spill kit, adsorbent pads, speedy dry, and drain protector safety seals.

- In the event that spill prevention measures fail, a swiftly executed response will reduce or prevent contamination of stormwater. In the event of a spill at the Market Street Marine Terminal, all Division employees, Terminal tenants, contractors and subcontractors must immediately take the appropriate action to:
  - Eliminate the source
  - Contain the spill
  - Remove the spill
- A spill response kit must be readily available at the Port office and maintenance area.
- All tenants of the Terminal must maintain a spill response kit in the immediate vicinity of their equipment work area.

### Notification Procedures

- In the event of a spill, immediately notify the Port office at 603-436-8500.
- In the event of a spill which enters the tidal waters or threatens to enter the tidal waters, immediately notify the U.S. Coast Guard at 1-800-424-8802.
- In the event of a spill that cannot be contained and removed with the spill kit, immediately notify Tradebe at 1-888-276-0885.
- Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302, occurs during a 24-hour period, you must notify the National Response Center (NRC) at (800) 424-8802 in accordance with the requirements of 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302 as soon as you have knowledge of the discharge.
- New Hampshire state statutes (Env-Or 604.06) require that all petroleum spills be reported if any of the following situations occur:
  - A discharge of any oil into surface water or groundwater of the state;
  - A discharge of 25 gallons or more of oil to land;
  - A discharge of less than 25 gallons of oil to land unless the discharge is cleaned up immediately and properly disposed of;
  - A discharge of oil that results in the presence of vapors that pose an imminent threat to human health;
  - A discharge of oil resulting in a violation of the groundwater quality criteria of Env-Or 603.01 in a sample collected from a water supply well; or
  - A discharge of oil resulting in the detection of non-aqueous phase liquids (NAPL).

**See Appendix U for additional details.**

### 3.2.5 Erosion and Sediment Controls

The Terminal Yard is paved with asphalt; therefore, the potential for erosion is limited to the discharges at the outfalls. Sediment is generated by the materials stored in the Terminal Yard and the vehicular traffic. BMPs in place at the Terminal to prevent erosion and control the discharge of sediment include:

- Maintain riprap and rock-lined slopes at the outfall locations.
- Inspect flared-end sections for defects and detachment from outfall pipes.
- Maintain grass and vegetation on the limited unpaved areas.
- Maintain sediment sacks in catch basins, inspect weekly, and remove sediment if needed.
- Inspect catch basin sumps weekly and vacuum when sediment level is within 3 to 4 inches of the bottom of the eliminator stems attached to the oil traps installed in the catch basin outlet pipe.
- Sweep and/or vacuum Terminal Yard as discussed in Section 3.2.3 above.

### 3.2.6 Management of Runoff

Runoff from the Terminal Yard passes through three stormwater treatment units (SWTU) before discharging to the Piscataqua River. Impervious pavement covering the northern portion of the Terminal Yard is graded to direct stormwater to several catch basins, which discharge into two separate subsurface stormwater

collection systems that discharge to SWTU 1 (Outfall 10) and SWTU 2 (Outfall 11). The impervious pavement in the southern portion of the Terminal yard is graded to direct flow over the surface to one inlet structure (CB 23) which discharges to SWTU 3 (Outfall 12). Runoff from the main wharf flows by sheet flow to the river. Runoff from the barge dock flows to four catch basins on the dock, which discharge to the river via Outfalls 06, 07, 08, and 09.

### **3.2.7 Outdoor Storage of Salt**

Loading, unloading, and/or storage of salt is a year-round activity at the Terminal. The salt pile covers approximately one and one-half acre of lay down area in the northern portion of the Terminal Yard. The following BMPs are employed at the Terminal to reduce stormwater contamination from salt storage and transfer activities:

- The salt storage pile is located on asphalt to reduce the potential for ground water contamination
- The salt storage pile is covered with a plastic material and weighted down with sand/salt bags except during loading and loading/unloading activities to prevent exposure to stormwater
- Pavement around the salt storage pile is generally graded to prevent stormwater run-on from reaching the pile
- Any salt spilled during loading/unloading from surrounding pavement is cleaned up routinely following the completion of loading and unloading activities.

### **3.2.8 MSGP Sector-Specific Non-Numeric Effluent Limits**

The additional technology-based, non-numeric effluent limits discussed in Section 8 of the MSGP were incorporated into the BMP discussion above. The potential for stormwater pollution from pressure washing, sanding and painting, storage of containerized, hazardous materials, and engine repair and maintenance are all conducted indoors inside the warehouse to eliminate the exposure to stormwater. Maintenance and inspection procedures were discussed in Section 3.2.3 above, while employee training is discussed in the subsequent section. The Terminal does not have a dry dock operation.

### **3.2.9 Employee Training**

Employee training is essential to effective implementation of the SWPPP. The purpose of a training program is to teach personnel the components and goals of the SWPPP. Records shall be maintained that identify which employees have received training in good stormwater management practices. All employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of this permit (e.g., inspectors, maintenance personnel), including all members of the Pollution Prevention Team listed in Section 1.3 must receive training at least annually.

### **Annual Training Plan**

The training plan covers the following areas: Spill Prevention and Response, Good Housekeeping, and Materials Management Practices. See Appendix K for an outline of the areas covered during annual training.

### **Additional Training Tools**

- Discuss stormwater pollution prevention at routine employee meetings, at least monthly including topics such as
  - New potential sources for stormwater contamination
  - Changes to the SWPPP
  - Results of routine inspections and stormwater sampling
  - Evaluation of the effectiveness of the training program

### **Implementation of Training**

The employee training program will be monitored and implemented by the Port Director in conjunction with PDA Engineering. In addition, Terminal personnel have received Hazardous Waste Operation and Emergency Response Standard (HAZWOPER) training.

#### **3.2.10 Non-Stormwater Discharges**

The Division's operations at the Terminal do not typically generate non-stormwater discharges. However, discharges such as fire hydrant flushings or washdowns of pavement or the outside of buildings (with no detergents) may be discharged under the MSGP. Refer to Cianbro's SWPPP for information relating to good housekeeping measures associated with process water operations.

#### **3.2.11 Waste, Garbage and Floatable Debris**

Waste, garbage, and floatable debris shall not be discharged to receiving waters. Exposed areas will be kept free of such materials or materials will be intercepted before they are discharged. Employees shall inspect the site daily for litter and loose garbage and collect the materials for proper disposal. Waste receptacles shall be covered to prevent windblown litter.

#### **3.2.12 Dust Generation and Vehicle Tracking of Industrial Materials**

Generation of dust and off-site tracking of raw, final, or waste materials must be minimized. As described in Section 2.3 above, the Division completed certain structural improvements that have allowed consolidation of storage operations within a bermed area at the southern end of the Terminal. This consolidation is expected to reduce the generation and accumulation of dust and sediments in the Terminal yard travelways. Removal of a pre-existing structure and relocation of drainage systems near the pier allow for the establishment of separate travelways for trucks loading and unloading material onto vessels and other trucks using the Terminal. This separation of vehicle travelways should provide additional mitigation of dust generation during loading of vessels. Sweeping will also be used to control generation of dust by cleaning up material tracked onto the site by vehicles (refer to Section 3.2.2, Good Housekeeping, above).



## SECTION 4: SCHEDULES AND PROCEDURES FOR MONITORING

### 4.1 Sample Locations

The following outfall locations (see Site Map) are active at the Terminal:

- **Barge Wharf:** Outfalls 06, 07, 08, and 09 are substantially identical outfalls located under the Barge Wharf along the Terminal's northern boundary. Together, these outfalls drain approximately 49,500 square feet of the paved barge wharf. This wharf is used intermittently for discharging passengers from vessels; the transfer of closed containers and industrial and commercial machinery of various sizes (i.e., break bulk cargo), such as utility power equipment; as an assembly and staging area for finished sections of steel bridges; and for fishing boats to unload their catch. Outfalls 06, 07, 08, and 09 are under water except during an extremely low tide, and even then, safety concerns associated with access beneath the wharf make them inaccessible. The Division intends to use the closest upstream sampling point, Catch Basin 14 (CB14) leading to Outfall 06, as the sampling point for substantially similar Outfalls 06-09, but may vary the location depending on the industrial activities being conducted on that wharf prior to the discharge event.
- **Outfall 10:** Outfall 10 was installed in 2012 downstream from SWTU 1. Outfall 10 is located under center section of the main wharf. The outlet protrudes from a steel bulkhead. The approximately 120,000-square foot paved drainage area includes the road salt storage pile, the area of the scale and scale house, and a large portion of the main truck travelway around the interior of the Terminal yard. The drainage area contains has five catch basins: CB's 9, 18, 19, 20, and 21. Outfall 10 is accessible only during an extremely low tide. If outfall 10 is not accessible, the sample will be taken at DMH-1, just upstream of Outfall 10 but downstream from SWTU 1.
- **Outfall 11:** Outfall 11 was installed in 2012 downstream from SWTU 2. Outfall 11 is located to the south of the southern entrance to the main wharf. The approximately 112,100-square foot paved drainage area served by Outfall 11 includes a large portion of the main truck travelway around the interior of the Terminal yard and a majority of the warehouse roof drainage. The drainage area contains has five catch basins: CB's 1, 6, 7, 8 & 22. The outfall pipe for Outfall 11 is 24-inch diameter, reinforced concrete with a flared end section underlain by rip rap.
- **Outfall 12:** Outfall 12 was installed in 2012 downstream from SWTU 3. The drainage area is approximately 148,725-square foot and drains to a single catch basin (CB 23). The outfall pipe for Outfall 12 is 24-inch diameter, reinforced concrete with a flared end section underlain by rip rap.



The following outfalls were sealed during construction of the 2012 stormwater upgrades:

- **Outfall 01:** Redirected to Outfall 11.
- **Outfall 02:** Replaced by Outfall 11.
- **Outfalls 03, 04, and 05:** Replaced by Outfall 12.

### **Other Stormwater Discharges**

There are limited areas of the Terminal that discharge via overland flow directly to the Piscataqua River or towards Market Street. These areas include the southeast boundary where the Steamship Company operates and the northwestern corner of the Terminal yard on the other side of the B&M railroad tracks where the tenant vehicle parking areas are located. Industrial activities do not typically occur in these areas.

## **4.2 Measurable Storm Events**

Stormwater samples for the required monitoring discussed herein in Sections 4.3 and 5.3 will be collected within the first 30 minutes of an actual discharge from a storm event that occurs at least 72 hours from a previously “measurable” storm event (i.e., one that results in an actual discharge from the Facility); however, the 72-hour storm interval does not apply if it is documented that less than a 72-hour interval is representative for local storm events during the monitoring period. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample will be collected as soon as practicable after the first 30 minutes, and the reason for the delayed sampling will be documented in the stormwater report. The storm event record will include the date and duration of the rainfall event and the rainfall total (in inches) as determined from locally available storm records. In the case of snowmelt, the monitoring must be performed when a visible discharge occurs at the Facility. A record of measurable storm events will be provided along with the quarterly monitoring report.

## **4.3 Sampling Schedule**

### **4.3.1 Benchmark Monitoring**

Each industrial sector has its own requirements for Benchmark monitoring. The Benchmark monitoring data is to be used by the Division to determine the overall effectiveness of the control measures at the Terminal. Quarterly benchmark monitoring for each required parameter will continue at the Terminal until the average of four consecutive quarterly samples is below the Benchmark value, at which time the monitoring requirement for that parameter has been fulfilled for the permit term.

#### **4.3.1.1 Additional Benchmark Monitoring Procedures**

Benchmark monitoring must be conducted quarterly as identified in Part 6.1.7 of the MSGP for the first 4 full quarters of permit coverage commencing no earlier than April 1, 2009. Refer to the MSGP Part 6.2.1.2 if the average of the sampling data for four consecutive quarters does not exceed benchmarks or if data exceeds benchmarks.

2013 Schedule:

- January – March 2013, April – June 2013, July – September 2013, October - December 2013.

#### **4.3.2 Impaired Waters Monitoring**

Sampling for impaired monitoring parameters (PCBs and mercury) will be performed at least annually. During 2013 sampling for impaired monitoring parameters (PCBs and mercury) will be performed quarterly.

#### **4.3.3 Assessment of SWTUs**

For a 6-month period following completion of the 2012 stormwater upgrades (i.e., beginning in December 2012), the monitoring program at the Terminal will include additional monthly samplings for total and dissolved metals (aluminum, copper, iron, lead, mercury, and zinc) at Outfalls 10, 11, and 12. The purpose of this testing is to measure the effectiveness of SWTU 1, 2, and 3 in removing metals from the stormwater discharge and to determine what fraction of the total metals discharge is dissolved in stormwater. After the six monthly samples are collected, this additional sampling will cease. Regular quarterly sampling will continue throughout and after this additional monthly sampling is completed.

#### **4.3.4 Annual Effluent Limitations Guidelines Monitoring**

Not Applicable

#### **4.3.5 State or Tribal-specific Monitoring**

Not Applicable

### **4.4 Sampling Parameters**

One outfall at the Barge Wharf and Outfalls 10, 11, and 12 will be sampled for the Sector Q Benchmarks and applicable Impaired Waters pollutants because the site discharges to the Lower Piscataqua River, a water quality impaired water body. Upon Grimmel's departure from the Port in January of 2015, Sector N sampling by the Division at Outfalls 10, 11 and 12 for three additional parameters which were applicable to Grimmel operations will continue until December of 2015, which are not included under Sector Q (i.e., total copper, chemical oxygen demand, and total suspended solids). A summary of the monitoring parameters at each outfall is provided below.

Summary of Monitoring Parameters					
Outfalls	Monitoring Program	Sampling Frequency	Pollutant	Sector	Benchmark/ Water Quality Value
06 <sup>1</sup> , 10, 11, 12	Benchmark	Quarterly	Total Aluminum	Q, N	0.75 mg/L
06 <sup>1</sup> , 10, 11, 12	Benchmark	Quarterly	Total Iron	Q, N	1.0 mg/L
06 <sup>1</sup> , 10, 11, 12	Benchmark	Quarterly	Total Lead	Q, N	0.262 mg/L <sup>2</sup>
06 <sup>1</sup> , 10, 11, 12	Benchmark	Quarterly	Total Zinc	Q, N	0.26 mg/L <sup>2</sup>
10, 11, 12	Benchmark	Quarterly	Total Copper	N	0.0332 mg/L <sup>2</sup>
10, 11, 12	Benchmark	Quarterly	Chemical Oxygen Demand	N	120 mg/L
10, 11, 12	Benchmark	Quarterly	Total Suspended Solids	N	100 mg/L
06 <sup>1</sup> , 10, 11, 12	Impaired Waters	Annually	Mercury	All, if applicable	0.0021 mg/L <sup>4</sup>
06 <sup>1</sup> , 10, 11, 12	Impaired Waters	Annually	PCB's	All, if applicable	0.01 mg/L <sup>4</sup>
None	Impaired Waters	NMR <sup>3</sup>	Dioxins	All, if applicable	-
None	Impaired Waters	NMR <sup>3</sup>	Enterococcus Bacteria	All, if applicable	-
None	Impaired Waters	NMR <sup>3</sup>	Estuarine Bioassessments	All, if applicable	-

<sup>1</sup>Sample to be collected at the Barge Wharf from Outfall 06 or equivalent outfalls 07, 08 or 09.

<sup>2</sup>Values for copper, lead, and zinc are taken from 2008 MSGP and based on an email from EPA Region I re: MSGP benchmarks for hardness-dependent metals in saline waters.

<sup>3</sup>NMR - No Monitoring Required per 2008 MSGP Monitoring Guidance for Discharges into Impaired Waters (See Appendix J)

<sup>4</sup>Values obtained from NHDES Marine Acute Water Quality Criteria, NH Code of Admin. Rules, Env-Wq Chapter 1700, Tables Env-Wq 1703.1 and 1703.2.

## 4.5 Sampling Procedures

The Port Director will coordinate sample collection and logistics for taking and handling samples, laboratory to be used, etc. The Division will hire a consultant (currently Ransom Consulting, Inc.) to collect stormwater samples and a certified laboratory (currently Alpha Analytical) for testing of the samples. Monitoring must be conducted and samples must be analyzed according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in the permit.

The sampling procedure at the different outfalls will vary because of the configuration of some outfalls and the influence of the tides. In general, the procedures leading up to a sampling event are as follows:

- Consultant will monitor weather conditions and forecasts and inform the Division of a possible upcoming sampling event. Consultant will prepare a sampling kit for rapid mobilization in the event that a discharge does occur.
- Division personnel will assess operating and weather conditions to ensure that it is safe for the Consultant to enter the Site to sample during the storm event.
- After a storm event commences, Division personnel will observe site conditions and the stormwater outfalls for evidence of a discharge.
- If a discharge is observed at any of the outfalls, Division personnel will immediately inform the Consultant, who will immediately mobilize to the Site to begin sampling.
- Sampling will commence at the location with the first observed discharge. In general, the sampling order is expected to be as follows: Outfall 12, Outfall 11, Outfall 10, and the selected Barge Wharf outfall.

**Substantially identical outfall exception:**

- **Barge Wharf Outfalls (06, 07, 08, and 09)**

Outfalls 06, 07, 08, 09 are spaced approximately 40 to 50 feet from each other under the Barge Wharf along the site's western boundary. Each outfall (06, 07, 08, and 09) receives stormwater from a catch basin (CB-14, CB-15, CB-16, and CB-17, respectively) along the southeastern side of the Barge Wharf. The approximately 49,500 square foot drainage area is mostly bituminous pavement except for the concrete wharf and the grassy slope that is southeast of the wharf. The runoff coefficient is high (above 65%) in all four drainage areas and similar industrial activities (unloading/loading of vessels) occur along the length of the wharf. Therefore, the stormwater discharges from each outfall are considered to be equivalent. Because Outfall 06 is representative of the wharf activities that are occurring in the drainage areas for Outfalls 07, 08, and 09, and because it also receives flow from the boat launch ramp area at the end of the wharf, it will be the sampling location used to represent the four outfalls under the Barge Wharf. Outfall 06 (and Outfalls 07, 08, and 09) can only be accessed on foot by crossing rip-rap with restricted head space and then only for a limited period of time at low tide. This, in addition to the slick conditions which occur when the rip rap is wet, creates an unsafe situation for the samplers. Therefore, the Barge Wharf outfalls will be represented by collecting a sample from the associated catch basin.

A collection container will be suspended below the silt sack inside the catch basin. The grate, silt sack, and collection container will be lifted out of the catch basin structure and the sample will be taken out of the collection container. Note the Catch basins 14, 15, 16, and 17 each contains a sump which may also trap sediment prior to the storm flow being discharged to the receiving waters. The sampling procedure does not account for the additional treatment that may be occurring in the catch basin.

The availability of all of the catch basin locations on the Barge Wharf may be limited at times by exceptional high tides, though less so than the outfalls themselves, or by materials temporarily stockpiled on the wharf. Consequently, there may be occasions when stormwater samples cannot be obtained due to tidal influences and operations. Sampling events and attempts will be documented.

## SECTION 5: INSPECTIONS

For the routine facility inspections and the comprehensive site inspections to be performed at the Terminal:

- The names of the person(s), or the positions of the person(s), responsible for inspection: Geno Marconi

### 5.1 Routine Facility Inspections

Routine facility inspections must be conducted at least quarterly in accordance with the MSGP Part 4.1. At least once per calendar year, the routine facility inspection must be conducted during a period when a stormwater discharge is occurring. The quarters are designated as follows:

- Quarter 1: January – March;
- Quarter 2: April- June
- Quarter 3: July – September
- Quarter 4: October -December.

Documentation of the inspection is not required to be submitted to the EPA unless specifically requested but will be maintained onsite with this SWPPP. A routine facility inspection form is included in Appendix L.

Areas of the facility where industrial materials or activities are exposed to stormwater (e.g., the loading/unloading wharfs, the salt storage pile, vehicle travelways, etc.) and the structural stormwater control measures (e.g., catch basins, SWTUs) in place at the Terminal will be included in the inspections.

The comprehensive site inspection may also be used as one of the routine facility inspections.

Any corrective action required as a result of a routine facility inspection must be performed consistent with Part 3 of this permit and documented.

### 5.2 Comprehensive Site Inspections

Comprehensive site inspections must be conducted annually in April accordance with the MSGP Part 4.3.

The comprehensive site inspection must cover all areas of the facility affected by the requirements in this permit including the areas identified in the SWPPP as potential pollutant sources where industrial activities are exposed to stormwater, any areas where control measures are used to comply with the effluent limits in Part 2 of the MSGP and areas where spill and leaks have occurred in the past 3 years. The inspections must also include a review of monitoring data collected during benchmark monitoring (Section 4 of the SWPPP). Inspectors must consider the results of the past year's visual and analytical monitoring when planning and conducting inspections.

The Inspector must examine the following:

- Industrial materials, residue, or trash that may have or could come into contact with stormwater;
- Leaks or spills from industrial equipment, drums, tanks, and other containers
- Offsite tracking of industrial or waste materials, or sediment where vehicles enter or exit the site;
- Tracking or blowing of raw, final, or waste materials from areas of no exposure (i.e., inside the warehouse) to exposed areas; and
- Control measures needing replacement, maintenance, or repair

The comprehensive site inspection may also be used as one of the routine facility inspections, as long as all components of both types of inspections are included. Documentation of the inspection must be submitted in an annual report as required in Part 7.2 of the MSGP and must be maintained onsite with this SWPPP. The Annual Reporting Form is included in Appendix N.

### **5.3 Quarterly Visual Assessments**

- Visual Assessments will be performed quarterly in accordance with the MSGP Part 4 along with the quarterly sampling events.

2013 Schedule:

- January – March 2013, April – June 2013, July – September 2013, October - December 2013.
- Samples are not required to be collected consistent with 40 CFR Part 136 procedures, but must be collected in a manner representative of the stormwater discharge.
- Stormwater samples will be collected from Outfalls 10 (or DMH1), Outfall 11, and Outfall 12 as described in Section 4.1 of this SWPPP, and from one of the equivalent outfalls (Outfalls 06, 07, 08, and 09), provided that the visual assessments are performed on a rotating basis of each substantially identical outfall throughout the period of coverage under this permit.
- The visual assessment will be made using:
  - A sample collected in a clean, clear glass or plastic container, and examined in a well-lit area;
  - Samples collected within the first 30 minutes of an actual discharge from a storm event or as soon as practicable after the first 30 minutes of discharge. Documentation will be provided regarding the sample timing when the sample is collected more than 30 minutes beyond the first discharge. In the case of snowmelt, samples will be taken when a measureable discharge is observed from the Terminal; and

- For storm discharges that occur at least 72 hours (3 days) from the previous discharge, unless a less frequent storm interval is representative for local storm events during the sampling period.

For each monitoring event, except snowmelt monitoring, the date and duration (in hours) of the rainfall event, rainfall total (in inches) for that rainfall event, and time (in days) since the previous measureable storm event will be identified. For snowmelt monitoring, the date of the sampling event will be identified.

Documentation of the inspection is not required for submission to the EPA unless specifically requested. However documentation will be maintained on-site with this SWPPP. A quarterly visual assessment form is included in Appendix M.

#### Adverse Weather Conditions

If adverse weather conditions prevent the collection of samples during the quarter, substitute sample will be collected during the next qualifying storm event. Documentation of the rationale for no visual assessment for the quarter will be included with the SWPPP records as described in Part 5.4. Adverse conditions are those that are dangerous or create inaccessibility for personnel, such as local flooding, high winds, or electrical storms, or situations that otherwise make sampling impractical, such as drought or extended frozen conditions.

#### Climates with Irregular Stormwater Runoff

When freezing conditions exist that prevent runoff from occurring for extended periods, then the samples for the quarterly visual assessments may be distributed during seasons when precipitation runoff occurs.

#### Snow

Because the site is subject to snow, at least one quarterly visual assessment must capture snowmelt discharge, as described in the MSGP Part 6.1.3, taking into account the exception described above for climates with irregular stormwater runoff.

## **SECTION 6: DOCUMENTATION TO SUPPORT ELIGIBILITY CONSIDERATIONS UNDER OTHER FEDERAL LAWS**

### **6.1 Documentation Regarding Endangered Species**

Documentation regarding endangered species is included in Appendix R.

### **6.2 Documentation Regarding Historic Properties**

Documentation regarding historic properties is included in Appendix S.

### **6.3 Documentation Regarding NEPA Review**

Not applicable.



## SECTION 7: SWPPP CERTIFICATION

Per the MSGP Part 5.1.7, the following certification statement must be signed and dated by a person who meets the requirements of Appendix B, Subsection 11.A or 11.B, of the MSGP. This certification must be re-signed in the event of a SWPPP modification in response to a Part 3.1 trigger for corrective action.

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.

Name: Geno Marconi Title: Director of Ports and Harbors

Signature:  Date: 9/2/2015

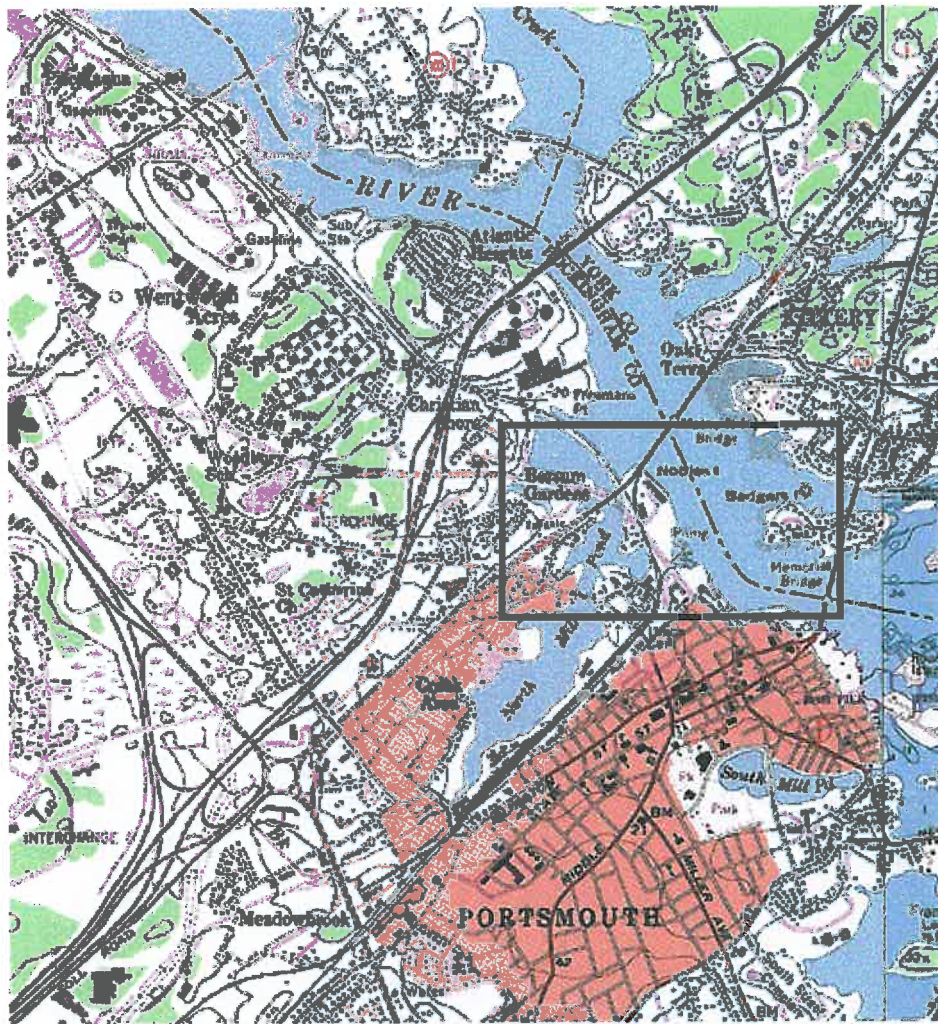
## SECTION 8: SWPPP MODIFICATIONS

### Instructions (see MSGP Part 5.2):

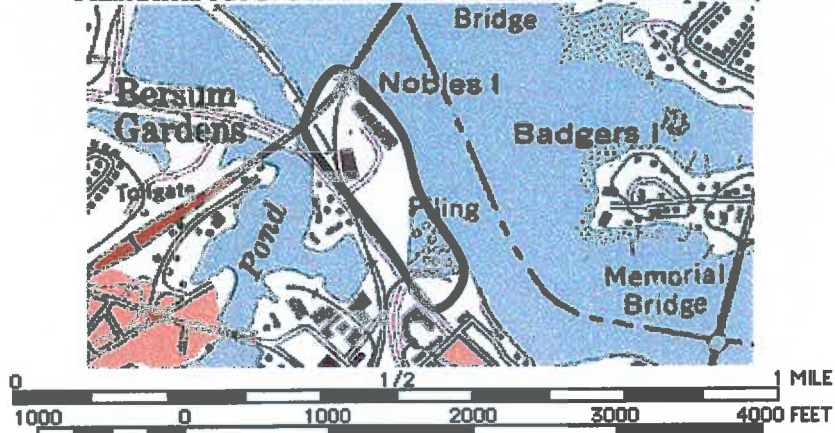
Per the MSGP Part 5.2, this SWPPP is a "living" document and is required to be modified and updated, as necessary, in response to corrective actions. See Part 3.4.

- For modifications to the SWPPP in response to a corrective action required by Part 3.1, then the Section 7 certification statement must be re-signed in accordance with Appendix B, Subsection 11.A or 11.B.
- For any other SWPPP modification, use the log included in Appendix T in this SWPPP to describe of the modification, the name of the person making it, and the date and signature of that person. See Appendix B, Subsection 11.C of the MSGP.

Appendix A: General Location Map  
Figure 1-1

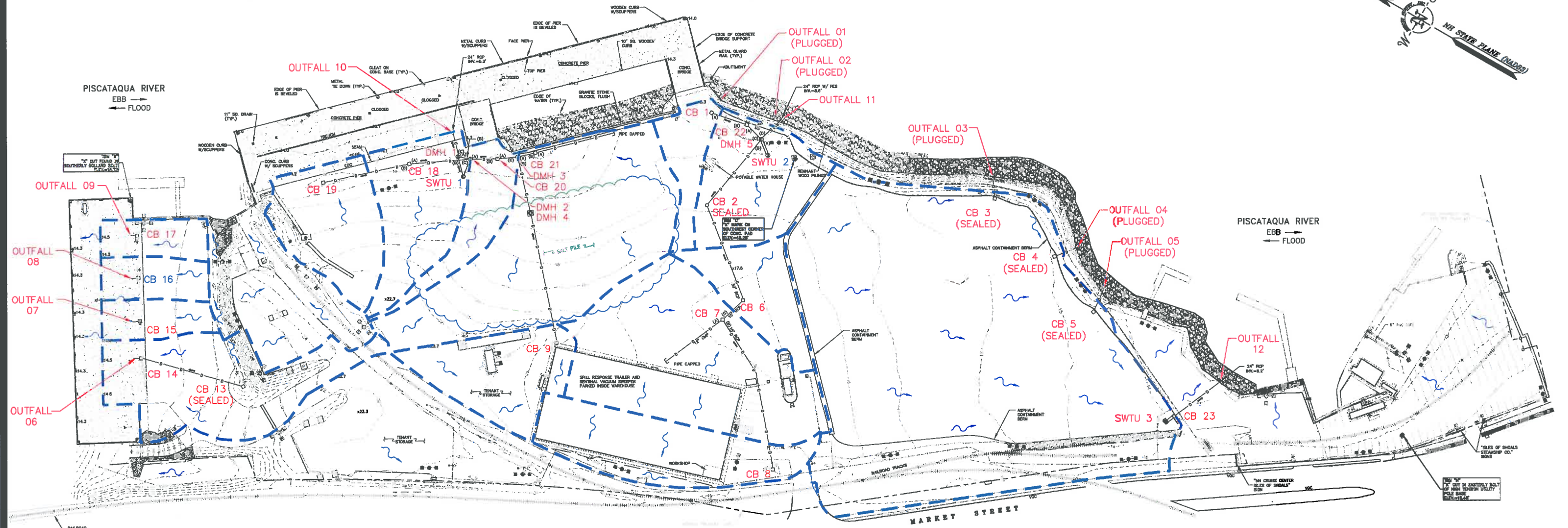
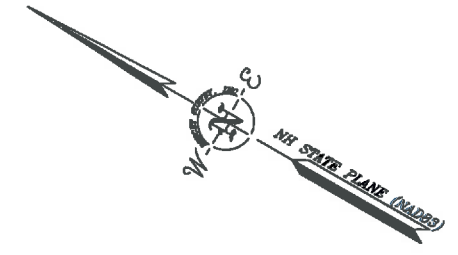


Printed from TOPO! ©1998 Wildflower Productions (www.topo.com)



Printed from TOPO! ©1998 Wildflower Productions (www.topo.com)



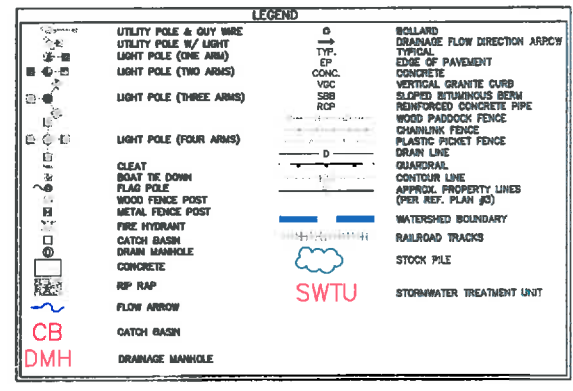


PISCATAQUA RIVER  
EBB →  
← FLOOD

PISCATAQUA RIVER  
EBB →  
← FLOOD

DRAINAGE STRUCTURE INVERT TABLE		
CB 1 ELEV. = 15.1' (A) 12" RCP INV. = 9.3'	CB 14 ELEV. = 14.0' (A) 18" C.I. = 8.2' INV 18" PIPE (B) 16" C.I. = 7.5' TOP OF 16" PIPE @ ELBOW	DMH 2 ELEV. = 14.3' (A) 24" RCP (B) 24" RCP INV. = 7.7' (C) 18" RCP
CB 2 (PAVED OVER) ELEV. = 16.2' 24" RCP INV (IN) = 10.9' 24" RCP TOP PIPE (OUT) = 13.0' TOP WATER ELEV. = 10.9'	CB 15 ELEV. = 14.0' (A) 18" C.I. = 7.6' TOP OF 18" PIPE @ ELBOW	DMH 3 ELEV. = 14.4' (A) 18" RCP INV. = 9.4' (B) 18" RCP INV. = 9.4' (C) 24" RCP INV. = 9.4'
CB 3 ELEV. = 15.7' (A) R.C.P. = 11.5' TOP OF CONCRETE ELBOW SIZE UNDETERMINED	CB 16 ELEV. = 13.9' (A) 16" C.I. = 7.5' TOP OF 16" PIPE @ ELBOW	DMH 4 ELEV. = 14.9' (A) 18" RCP (B) 24" RCP (C) 18" RCP (D) 24" RCP H2O ELEV. = 8.2' SUMP ELEV. = 7.9' STRUCTURE EXTREMELY RECESSED UNABLE TO LOCATE ALL PIPES OR ACCURATE INVERT ELEVATIONS.
CB 4 ELEV. = 14.9' (A) R.C.P. = 12' TOP OF CONCRETE ELBOW SIZE UNDETERMINED	CB 17 ELEV. = 13.9' (A) 16" C.I. = 7.5' TOP OF 16" PIPE @ ELBOW	DMH 5 ELEV. = 14.9' (A) 18" RCP (B) 24" RCP (C) 18" RCP (D) 24" RCP H2O ELEV. = 8.2' SUMP ELEV. = 7.9' STRUCTURE EXTREMELY RECESSED UNABLE TO LOCATE ALL PIPES OR ACCURATE INVERT ELEVATIONS.
CB 5 ELEV. = 14.2' TOP OF ENCLOSED PIPE = 11.3'	CB 18 ELEV. = 13.3' (A) 18" RCP INV. = 7.3 (B) 18" RCP INV. = 8.0'	SWTU 1 ELEV. = 15.3' (A) STRUCTURE HODDED TOP OF STRUCTURE = 10.3' TOP OF H2O = 7.8' SUMP = 2.8'
CB 6 ELEV. = 17.1' INV. 15" RCP = 12.7' 30" RCP (INV. ELEV. UNOBTAINABLE)	CB 19 ELEV. = 13.7' 18" RCP INV. = 9.3'	SWTU 2 ELEV. = 18.1' TOP H2O = 8.1' TOP OF STRUCTURE = 11' SUMP = 3.8'
CB 7 ELEV. = 17.1' (A) INV. 12" RCP = 12.8' (B) INV. 15" RCP = 13.0' (C) INV. 15" RCP = 13.2'	CB 20 ELEV. = 14.0' (A) 24" RCP INV. = 9.2' (B) 24" RCP INV. = 9.0'	SWTU 3 ELEV. = 18.1' TOP H2O = 8.1' TOP OF STRUCTURE = 11' SUMP = 3.8'
CB 8 ELEV. = 17.7' INV. 15" RCP = 13.4'	CB 21 ELEV. = 13.7' (A) 18" RCP INV. = 9.5' (B) 18" RCP INV. = 9.4'	DMH 1 ELEV. = 14.2' (A) 24" RCP INV. = 8.2' (B) 18" RCP INV. = 4.7' (C) 24" RCP INV. = 5.0'
CB 9 ELEV. = 19.7' (A) INV. 12" R.C.P. = 17.7'	CB 22 ELEV. = 14.2' (A) 18" RCP INV. = 9.2' (B) 12" RCP INV. = 9.2'	
CB 13 ELEV. = 14.3' (A) 16" C.I. = 11.7' TOP OF 16" PIPE @ ELBOW	CB 23 ELEV. = 14.2' (A) 18" RCP INV. = 9.2' (B) 12" RCP INV. = 9.2'	

TIDE ELEVATION TABLE	
ESTIMATED 100 YEAR FLOOD ELEV. (STILL WATER) = 12.78'	
HIGHEST OBSERVABLE WATER LEVEL (2/10/72) = 12.34'	
MEAN HIGHER HIGH WATER (MHHW) = 8.64'	
MEAN HIGH WATER (MHW) = 8.43'	
NORTH AMERICAN DATUM 1988 = 4.62'	
MEAN LOW WATER (MLW) = 0.32'	
MEAN LOWER LOW WATER (MLLW) = 0.0'	
LOWEST OBSERVABLE WATER LEVEL (2/10/77) = -3.2'	



**SURVEY NOTES**

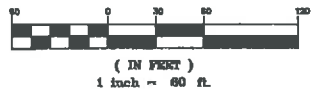
- DRAWING BASED ON TOPOGRAPHIC PLAN FOR PORTSMOUTH PORT AUTHORITY, MARKET STREET, PORTSMOUTH, NEW HAMPSHIRE PREPARED BY DOUCET SURVEY, INC. AND DATED MAY 6, 2011.
- TOPOGRAPHIC SURVEY COMPLETED BY DOUCET SURVEY, INC. IN APRIL 2007, SEPTEMBER 2007, APRIL 2011, AND DECEMBER 2012.
- HORIZONTAL DATUM - NH STATE PLANE 1983/NAD 1983 (CONUS) ZONE NH-2800.
- VERTICAL DATUM IS BASED ON MEAN LOWER LOW WATER. THIS DATUM WAS CONVERTED FROM NAVD USING A CONVERSION FACTOR OF + 4.62.
- ALL ELECTRIC, GAS, TELEPHONE, WATER, SEWER AND DRAIN SERVICES ARE SHOWN IN SCHEMATIC FASHION. THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN ON THIS SITE USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-800-DIG-SAFE.

**SWPPP NOTES**

- ALL OUTFALLS DISCHARGE TO THE PISCATAQUA RIVER. THE RIVER IS IMPAIRED FOR DIXON, ENTEROCOCCUS BACTERIA, MERCURY, ESTUARINE BIOASSESSMENTS, AND PCB'S.
- THE PROPERTY IS APPROXIMATELY 12.4 ACRES.
- OUTFALLS 6, 7, 8, AND 9 ARE TREATED AS SUBSTANTIALLY IDENTICAL OUTFALLS.
- STORMWATER MONITORING POINTS ARE LOCATED AT OUTFALLS 10, 11, AND 12 AS WELL AS CB14.
- LOADING AND UNLOADING OPERATIONS TAKE PLACE ON THE WHARFS AND WITHIN AND AROUND ANY STOCKPILE AREA.

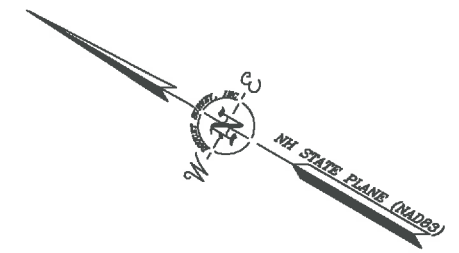
**SITE MAP**

MARKET STREET MARINE TERMINAL  
555 MARKET STREET  
PORTSMOUTH, NH 03801  
STORMWATER POLLUTION  
PREVENTION PLAN  
GRAPHIC SCALE



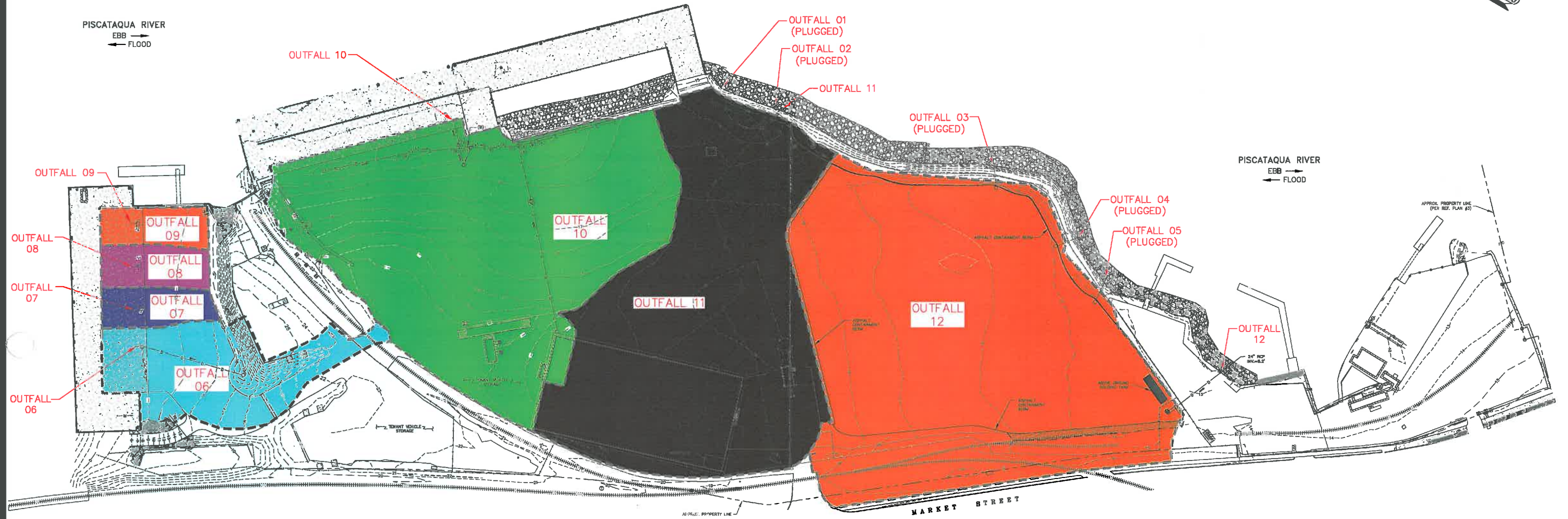
**PEASE  
DEVELOPMENT  
AUTHORITY**  
55 INTERNATIONAL DRIVE  
PORTSMOUTH, NH 03801  
SEPTEMBER 2015





PISCATAQUA RIVER  
 EBB →  
 ← FLOOD

PISCATAQUA RIVER  
 EBB →  
 ← FLOOD



**TIDE ELEVATION TABLE**

ESTIMATED 100 YEAR FLOOD ELEV. (STILL WATER)	=12.76'
HIGHEST OBSERVABLE WATER LEVEL (2/19/72)	=12.34'
MEAN HIGHER HIGH WATER (MHHW)	=8.84'
MEAN HIGH WATER (MHW)	=8.43'
NORTH AMERICAN DATUM 1988	=4.62'
MEAN LOW WATER (MLW)	=0.32'
MEAN LOWER LOW WATER (MLLW)	=0.0'
LOWEST OBSERVABLE WATER LEVEL (2/10/77)	=-3.2'

- SURVEY NOTES**
- DRAWING BASED ON TOPOGRAPHIC PLAN FOR PORTSMOUTH PORT AUTHORITY, MARKET STREET, PORTSMOUTH, NEW HAMPSHIRE PREPARED BY DOUCET SURVEY, INC. AND DATED MAY 6, 2011.
  - TOPOGRAPHIC SURVEY COMPLETED BY DOUCET SURVEY, INC. IN APRIL 2007, SEPTEMBER 2007, APRIL 2011, AND DECEMBER 2012.
  - HORIZONTAL DATUM - NH STATE PLANE 1983/NAD 1983 (CONUS) ZONE NH-2800.
  - VERTICAL DATUM IS BASED ON MEAN LOWER LOW WATER. THIS DATUM WAS CONVERTED FROM NAVD USING A CONVERSION FACTOR OF + 4.62.
  - ALL ELECTRIC, GAS, TELEPHONE, WATER, SEWER AND DRAIN SERVICES ARE SHOWN IN SCHEMATIC FASHION. THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN ON THIS SITE USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.

**OUTFALL MAP**

MARKET STREET MARINE TERMINAL  
 555 MARKET STREET  
 PORTSMOUTH, NH 03801

STORMWATER POLLUTION  
 PREVENTION PLAN

GRAPHIC SCALE

( IN FEET )  
 1 inch = 60 ft.

**PEASE  
 DEVELOPMENT  
 AUTHORITY**

55 INTERNATIONAL DRIVE  
 PORTSMOUTH, NH 03801  
 MARCH 2013