



STORMWATER POLLUTION PREVENTION PLAN

William Stanley Business Park of the Berkshires
Pittsfield, Massachusetts 01201

NPDES Permit: MA0040231
Effective Date: November 1, 2021
Expires: October 31, 2026

January 2022
Project No. 21088

Prepared for



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- A Final Permit Authorization (MA0040231), 2021 Multi-Sector General Permit, 2017 NPDES Remediation General Permit (MAG910000)
- B Non-stormwater Discharge Testing and/or Evaluation Form
- C List of William Stanley Business Park of the Berkshires Permits
- D Inventory of Exposed Materials
- E Summary of Spills
- F Procedures for Unloading Fuel Oil and Hazardous Materials
- G SWPPP Training Records
- H Routine Inspection Forms and Completed Reports
- I Stormwater Discharge Monitoring Form and Visual Assessment Form
- J Previous Monitoring Data from 2006 to 2014
- K Documentation and Correspondence of Effluent Exceedances

RECORD OF CHANGES SUMMARY

No.	Description of Change	Sec./Page	Date	By



CERTIFICATION OF THE DULY AUTHORIZED REPRESENTATIVE

William Stanley Business Park of the Berkshires
Generally Bounded by East Street, Silver Lake Boulevard, Kellogg, and Tyler Streets
Pittsfield, MA 01201

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

SUBCONTRACTOR'S/CONTRACTOR'S CERTIFICATION

William Stanley Business Park of the Berkshires
Generally Bounded by East Street, Silver Lake Boulevard, Kellogg Street, and Tyler Street
Pittsfield, MA 01201



I certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP for maintenance activities and/or construction at the Site. I also understand that the operator (PEDA) must comply with the terms of the National Pollutant Discharge Elimination System (NPDES) Permit for stormwater discharges at the Site and/or from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards.

Signature

Date

For (Company Name)

Responsible For (Describe Activities)

Signature

Date

For (Company Name)

Responsible For (Describe Activities)

Signature

Date

For (Company Name)

Responsible For (Describe Activities)



TENANT LEASE AGREEMENT CERTIFICATION

William Stanley Business Park of the Berkshires
Generally Bounded by East Street, Silver Lake Boulevard, Kellogg Street, and Tyler Street
Pittsfield, MA 01201

I certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP for activities at the property at which I am a tenant. I also understand that tenants must comply with the terms of the National Pollutant Discharge Elimination System (NPDES) Permit for stormwater discharges associated with Site activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards.

Name

Title

Company

Date

1.0 INTRODUCTION

1.1 GENERAL

Under the authority of the Federal Clean Water Act, as amended (33 U.S.C. §1251 et seq.; the “CWA”), and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21 §§26-53), the National Pollutant Discharge Elimination System (NPDES) permit No. MA0040231(the Permit) requires the Pittsfield Economic Development Authority (PEDA) to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP).

This SWPPP addresses applicable requirements of the Permit issued on August 18, 2021, by the U.S. Environmental Protection Agency (EPA) and the Commonwealth of Massachusetts Department of Environmental Protection (MassDEP). The Permit issued to PEDA (the Permittee), is effective November 1, 2021, expires on October 31, 2026, and supersedes Permit MA0003891 that became effective on February 7, 1992. The Permit incorporates certain requirements of the 2021 NPDES Multi-Sector General Permit (MSGP) and the EPA 2017 General Permit for Remediation Activity Discharges (RGP). Copies of the NPDES Permit and the Registration Form for the Site, the MSGP and the RGP are included in Appendix A.

This SWPPP addresses management of stormwater associated with activities at the William Stanley Business Park of the Berkshires (WSBP or the Site) located in Pittsfield, MA. WSBP is generally bounded by East Street, Silver Lake Boulevard, Kellogg Street, and Tyler Street and consists of South and North Side Parks bisected by the CSX railroad corridor. The drainage area subject to the Permit also includes privately-owned and municipal properties north of PEDA-owned properties. The Stormwater Management System and discharge location (Outfall 001) is located in South Side Park, depicted on Figure 2.

WSBP is located at a former General Electric (GE) manufacturing facility which up until 1990 manufactured and serviced electrical transformer equipment containing polychlorinated biphenyls (PCBs) and manufactured military hardware. Pursuant to a special act of the Massachusetts Legislature, Pittsfield formed PEDA to plan and implement redevelopment of WSBP. PEDA currently owns 52 acres agreed to in the Definitive Economic Development Agreement. These include the GE 19s (aka Teens), 20s, 30s and 40s Complexes. A portion of the pre-existing stormwater management system was abandoned and/or refurbished to comply with MassDEP Stormwater Management Standards.

1.2 CONDITIONS OF THE PERMIT

PEDA will ensure that authorized discharges of stormwater are conducted in accordance with conditions of the site-specific NPDES Permit and certain portions of the MSGP and the RGP.

The Permit requires that stormwater discharges not cause a violation of the water quality standards, or objectionable discoloration, of the receiving water, not contain a visible sheen, foam or floating solids, and not contain pollutants in amounts toxic to aquatic life. In addition, the discharge will be limited and monitored as described in Section 6 of this SWPPP and PEDA will operate and maintain all treatment systems.

1.3 SUMMARY OF PLAN REQUIREMENTS

Compliance with the NPDES Permit 2021 and applicable portions of the MSGP and RGP requires that PEDA carry out activities that will assure that the objectives of the NPDES permit program for stormwater discharges associated with industrial activities are achieved. One of these requirements is that a Stormwater Pollution Prevention Plan (SWPPP) be prepared, and its provisions carried out. The



SWPPP is representative of current Site conditions and includes the following elements as required by the Permit:

- Stormwater Pollution Prevention Team
- Drainage area description
- Drainage area map
- Summary of potential pollutant sources
- Description of stormwater control measures (e.g., Best Management Practices (BMPs))
- Schedules and procedures for implementation of stormwater control measures, including applicable inspections, assessments, and monitoring of the Stormwater Management System, and
- Documentation to support eligibility pertaining to other federal laws

The NPDES Permit requires that control measures be selected, designed, implemented and maintained to eliminate discharges of PCBs from the Site to receiving waters through an iterative process over the five-year permit term. The control measures must address the following:

- Identify sources of PCBs that contribute PCBs to stormwater.
- Optimize removal of PCBs from stormwater by techniques which may include cleaning stormwater conveyance structures, pavement sweeping and enhancing the storage capacity of the water quality basin.
- Minimize discharge of stormwater containing PCBs by completing source control and elimination of PCBs from soil, sediment, stormwater, and groundwater entering the stormwater conveyance system by disconnecting, relining, replacing, or abandoning appropriate conveyance structures or other measures leading to elimination of PCBs in stormwater.
- Prepare design standards (e.g., procedures and protocols) to eliminate discharges containing PCBs.
- Complete ongoing evaluation of drainage structures and routinely sample discharges for PCBs.
- Conduct a pH study to demonstrate that the pH in Silver Lake does not exceed the range of 6.5 to 8.3 S.U., including preparation of a work plan for the study based on guidance provided by MassDEP.

A description of the proposed control measures, including technical specifications and other information, that are intended to be undertaken during each calendar year of the permit term will be summarized and provided to EPA and MassDEP in accordance with Part I.C.3. of the Permit and Section 7.4 of this SWPPP.

In addition, PEDAs will complete an evaluation of non-stormwater discharges as described in Section 1.4.

The SWPPP is organized into ten Sections:

- Introduction and plan description (Section 1.0)
- Stormwater Pollution Prevention Team members and duties (Section 2.0)
- Potential pollutant sources (Section 3.0)
- Pollution prevention systems used to attain SWPPP objectives (Section 4.0)
- Inspection requirements (Section 5.0)
- Monitoring requirements (Section 6.0)
- Recordkeeping and reporting requirements (Section 7.0)
- Corrective Actions (Section 8.0)
- Procedures for Plan updates (Section 9.0), and



- Documentation to support eligibility pertaining to other federal laws (Section 10.0)

1.4 NON-STORMWATER DISCHARGE EVALUATION

As required by the Permit and 2021 MSGP, a non-stormwater discharge evaluation is required by the end of the first year of the Permit term. PEDAs will inspect and document the discharge point at the Site. If it is infeasible to complete the evaluation within the first year of permit coverage, PEDAs will document in the SWPPP why this is the case and identify the schedule according to which the evaluation will be completed.

The non-stormwater discharge evaluation will include the following:

- The date of evaluation
- A description of the evaluation criteria used, and
- A list of the discharge points or on-site drainage points that were directly observed during the evaluation

For any unauthorized non-stormwater discharges, PEDAs will immediately take action(s) to eliminate those discharges or seek and/or document that an individual NPDES wastewater permit was obtained for the discharge. In addition, PEDAs will provide an explanation of all implemented corrective actions.

The non-stormwater discharge evaluation has not been completed at the Site and will be completed within the first year of the permit term (i.e., no later than November 1, 2022). Based on current knowledge, interior floor drains (if present) in the two buildings at South Side Park (MountainOne Bank and Berkshire Innovation Center (BIC)) are connected to the sanitary sewer system.

The results and a description of the non-stormwater discharge evaluation that will be completed in 2022 will be included in Appendix B.

1.5 CONSISTENCY WITH OTHER PLANS AND PERMITS

There are currently no other environmental or construction permits associated with WSBP property except for the Consent Decree (as modified) among the United States, Massachusetts, Connecticut, Pittsfield, PEDAs and GE, the last modification of which was filed July 22, 2009. During the term of the Permit, any permits that are issued to WSBP will be included in a table in Appendix C. Any permits that have been issued to municipal and privately-owned properties north of WSBP are unknown.

1.6 PLAN DISTRIBUTION

A complete copy of the SWPPP will be maintained at PEDAs offices located within the Department of Community Development at Pittsfield City Hall, 70 Allen Street, Pittsfield, MA. Copies of the SWPPP will be distributed to the facility managers of the two Site buildings (MountainOne Bank – 111 Silver Lake Boulevard and Berkshire Innovation Center – 45 Woodlawn Avenue) and Eversource, the operator of the solar array located in the northwestern portion of South Side Park. In addition, the SWPPP will be available electronically at <https://businesspittsfield.com/peda>.

Upon request, the SWPPP will be available to Site employees, EPA, MassDEP, representatives of the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS), and the public.

2.0 POLLUTION PREVENTION TEAM

2.1 POLLUTION PREVENTION TEAM RESPONSIBILITIES

The Pollution Prevention Team (PPT) is responsible for conducting the activities and meeting the objectives of the SWPPP under the direction of the Team Leader. The PPT is responsible for the following:

- Implementing SWPPP requirements
- Identifying and training new PPT members
- Conducting or supervising annual SWPPP training
- Assisting in implementation, maintenance, and development of revisions to the Plan
- Maintaining control measures and taking corrective actions when required
- Identifying potential new sources of stormwater pollution from activities as they occur or are planned due to Site redevelopment, and from routine maintenance activities
- Reviewing and improving the best management practices (BMPs) in place at the facility to minimize sources of stormwater pollution
- Conducting required inspections in accordance with the SWPPP and preparing inspection reports
- Maintaining required records
- Directing qualified personnel in the collection of stormwater samples for required effluent monitoring, and
- Maintaining consistency between the SWPPP and other facility plans

All Pollution Prevention Team members have access to the SWPPP.

2.2 TEAM MEMBERS AND RESPONSIBILITIES

The PEDA operations staff is limited, and all staff members may be involved in pollution prevention activities as part of their routine job functions. Since the Permit requires that at least one Pollution Prevention Team member be present at WSBP or on call, PEDA has designated all operations staff as members of the Team. These individuals participate in implementing stormwater pollution prevention control measures and in the development of revisions to the SWPPP. They have been or will be trained in stormwater pollution prevention and are generally familiar with spill prevention, spill containment, emergency response and pollution prevention best management practices.

The specific responsibilities of the PPT members are as follows:

Team Leader(s) – The PPT leader is the Site Manager, Michael Coakley (PEDA Interim Director) with overall responsibility for spill prevention and compliance with requirements of the Permit and the SWPPP. Specifically, the PPT Leader is responsible for the following:

- Identifying Permit compliance requirements
- Carrying out the provisions of the SWPPP
- Obtaining certification signatures required for the SWPPP
- Identifying new PPT members when changes in the PPT are necessary
- Ensuring routine inspections, effluent sampling, monitoring, and reporting are conducted as required
- Preparing and approving revisions to the SWPP Plan, as needed, and ensuring consistency with other facility plans and permits
- Keeping required records and internal correspondence
- Certifying storm water sampling results and Discharge Monitoring Reports (DMRs)

- Notifying the National Response Center, MassDEP and other agencies as required, in accordance with Section 7.8 of this Plan if a reportable release of oil or hazardous materials occurs, and
- Modifying the SWPPP whenever there is a change to the WSBP property, construction, operation, or maintenance that has a significant effect on the potential for the discharge of pollutants or when the SWPPP proves to be ineffective in controlling pollutants in stormwater discharges

The PPT Leader is assisted by the other members of the Pollution Prevention Team. Team members may consist of PEDAs employees or employees of Berkshire Environmental Consultants, Inc. (BEC) and ZUVIC.

Team Members – The Pollution Prevention Team members have designated responsibilities for implementing SWPPP requirements under the direction of the PPT Leader. Specifically, the PPT members are responsible for the following:

- Implementing BMPs for spill prevention described in Section 4.0
- Conducting and documenting facility and equipment preventative maintenance and inspections described in Sections 4.2.9 and 5.0
- Ensuring that storm water samples are collected and documented as described in Section 6.0.
- Participating in periodic employee training as described in Section 4.2.11, and
- Implementing Emergency Response Procedures in the event of a spill

3.0 POTENTIAL POLLUTANT SOURCES

3.1 DRAINAGE AREA OVERVIEW

3.1.1 General Drainage Area Location, Use and Description

The William Stanley Business Park of the Berkshires (WSBP), located in Pittsfield, Massachusetts, consists of two areas (North Side Park and South Side Park) separated by the CSX railroad corridor. The Stormwater Management System is located in South Side Park, depicted on the Figure 2.

The drainage area is comprised of approximately 145 acres consisting of South and North Side Parks, the CSX railroad corridor and municipal and privately-owned land north of North Side Park.

3.1.1.1 South Side Park

South Side Park consists of approximately 26 acres and is currently developed with a bank (MountainOne, 111 Silver Lake Boulevard), the Berkshire Innovation Center (BIC) (45 Woodlawn Avenue), the Stormwater Management System (see Section 3.1.2), a solar cell array operated by Eversource Energy, and paved and undeveloped landscaped land. A portion of Woodlawn Avenue is within South Side Park and is located east of BIC and west of a paved parking lot and landscaped area where the former 20s Complex was located. South Side Park is bounded to the north by the CSX railroad corridor, to the west by Silver Lake Boulevard, and to the south by East Street. South Side Park includes the former 20s and 30s Complexes.

The solar array occupies approximately 2 acres in the northwestern portion of South Side Park and consists of solar cells mounted approximately 5 to 10 ft. above ground surface on pad-mounted metal stands. Gravel-covered driveways and vegetated areas surround the solar cell array.

3.1.1.2 CSX Railroad Property

The CSX rail corridor bisects South Side Park and North Side Park and is not owned, operated, or controlled by PEDDA. Five railroad tracks, laid east to west, are present in the corridor.

3.1.1.3 North Side Park

North Side Park is bounded to the north by Kellogg Street and Tyler Street, to the east by 55 Merrill Road (GE Facility), to the west by Woodlawn Avenue and a commercial building (2 Brown Street), and to the south by the CSX railroad corridor. North Side Park includes the areas referred to as the former GE 19s and 40s Complexes. North Side Park is approximately 26 acres and is currently undeveloped land covered with the remains of the concrete floor slabs and paved driveways of the former GE Complex.

3.1.1.4 Municipal and Privately-Owned Properties

The northern portion of the drainage area consists of approximately 90 acres of municipal roads (portions of Kellogg Street, Parker Street, Plunkett Street, Forest Place, Curtis Terrace, Dalton Avenue, Tyler Street, Westminster Street, Harvard Street, Springside Avenue, Perrine Avenue, Norman Avenue, Dickenson Avenue, Alden Avenue, Roland Street, East Park Terrace, Sadler Avenue, Draper Avenue, Tanner Street and Broadview Terrace and all of Woodlawn Avenue) and privately-owned property. The off-site areas contribute runoff to Outfall 001 in the WSBP via the municipal stormwater conveyance system. The privately-owned properties primarily include residences and some commercial businesses. PEDDA does not own, operate, or control these municipal or privately-owned properties.

3.1.2 Stormwater Management System

The Stormwater Management System is described below and consists in part of a water quality basin and north and south forebays (located east of Silver Lake. The basin is approximately 50,000 sq. ft. and each forebay is approximately 4,000 sq. ft. Stormwater runoff from the drainage area is directed into the forebays for initial treatment, then flows into the water quality basin for detainment and treatment prior to discharging into Silver Lake through drainage Outfall 001. The basin and forebays were constructed circa 2009 by excavating soil, installing trap rock, and vegetating the sides of the features to control stormwater runoff.

The Stormwater Management System is designed to collect and treat stormwater, and minimize erosion and sedimentation, from the drainage area in accordance with the NPDES Permit and portions of the MSGP and GRP. The Stormwater Management System includes the following components (see Figure 2):

- Water Treatment System, including the following:
 - Forebays
 - Spillways
 - Water quality basin, and
 - Box culvert outfall
- Collection/Treatment System including the following:
 - Step pools
 - Vegetated drainage swales
 - Deep-sump catch basins and area drains, and
 - Storm collection piping and manholes

Stormwater runoff captured by the existing storm sewer system within the drainage area is conveyed to the north and south forebays and thence to the water quality basin. A grass-lined swale and storm sewer piping collect stormwater runoff from South Side Park and convey it to the water quality basin



via the south forebay. Stormwater runoff from North Side Park and municipal and privately-owned property north of WSBP is collected in the existing storm sewer system and conveyed through South Side Park in an existing underground 48 in. conduit prior to discharge to the north forebay of the water quality basin. Refer to Figure 2 for a map of the Site and drainage features.

The final water treatment system includes two forebays (north and south), two rock spillways between the forebays and the water quality basin, a water quality basin, and a box culvert outfall (Outfall 001). The forebays provide pre-treatment (removal of sediment) of stormwater runoff before entering the water quality basin through rock spillways. The water quality basin is the secondary stormwater treatment feature (removal of sediment) and ranges in depth from 1 to 2 ft. and extends below the water table. Stormwater exits the system through a 4 ft. by 8 ft. reinforced concrete box culvert to Silver Lake. The box culvert has been retrofitted with monitoring equipment.

The refurbished collection/treatment system for South Side Park consists of step pools, ten 4 ft. deep sump catch basins, 18 drain manholes (with 1 ft. sumps), 11 area drains (with 6 in. sumps) and high-density polyethylene stormwater collection pipe ranging from 12 in. to 36 in. in diameter. Prior to discharge to the south forebay, the step pools, sump catch basins, manholes and drains provide additional pretreatment of stormwater.

The stormwater drainage areas associated with Outfall 001 shown on Figure 2 are described in detail in Sections 3.2 through 3.5 of this Plan.

3.1.3 Receiving Waters Description and Mapped Flood Elevations

Outfall 001 discharges into Silver Lake which is classified under the Federal Clean Water Act by MassDEP as a Class B warm water fishery. Class B waters are described as having the following designated uses: (1) a habitat for fish, other aquatic life, and wildlife, including for their reproduction, migration, growth and other critical functions, (2) primary and secondary contact recreation, (3) a source of public water supply (i.e., where designated and with appropriate treatment), (4) suitable for irrigation and other agricultural uses and for compatible industrial cooling and process uses, and (5) having consistently good aesthetic value. Primary contact recreation is defined as any recreation or other water use in which there is prolonged and intimate contact with the water with a significant risk of ingestion of water. These include, but are not limited to, wading, swimming, kayaking, diving, surfing and water skiing.

Secondary contact recreation is defined as recreation or other water use in which contact with the water is either incidental or accidental. These include, but are not limited to, fishing, human consumption of fish, boating, and limited contact incident to shoreline activities. The Massachusetts Surface Water Quality Standards also describe Class B warm water fisheries as having an instream temperature that shall not exceed 83° F (28.3° C), and the receiving waters shall be free from oil, grease and petrochemicals that produce a visible film on the surface of the water, impart an oily taste to the water or an oily or other undesirable taste to the edible portions of aquatic life, coat the banks or bottom of the water course, or are deleterious or toxic to aquatic life.

Note that the Consent Decree and signage in place at Silver Lake prohibits all activities and uses of Silver Lake described above regardless of the lake's classification.

Silver Lake drains into the East Branch of the Housatonic River via a 48" storm sewer located near the intersection of Fenn and East Streets. This section of the Housatonic River is listed as impaired by fecal coliform and PCBs in fish tissue.

The 100-year and 500-year Housatonic River Federal Emergency Management Agency (FEMA) mapped flood boundaries on PEDAs property are shown on Flood Insurance Rate Map (FIRM) Panels



2500370010C and 2500370020C. 100-year base flood elevations around Silver Lake are indicated on these panels to be 990 ft. (NGVD 1929).

3.1.4 Inventory of Exposed Materials

Material storage areas are primarily located inside the bank and BIC and materials are handled and disposed of in a manner that precludes exposure to storm water. Sections 3.2 through 3.4 of this Plan include a discussion of potential pollutants associated with specific materials and operations at WSBP. Potential pollutants that may be present at municipal and privately-owned properties north of WSBP and along the CSX railroad corridor are unknown but may be present.

3.1.4.1 *Loading and Unloading Operations*

Loading docks are not present at either of the WSBP buildings. Materials delivered to the bank building consist of building maintenance supplies and cleaners that are stored inside the building.

Loading and unloading of materials and potential chemicals (for the wet laboratory or the prototype laboratory) at BIC are unknown. Other materials are not loaded or unloaded at WSBP.

Loading/unloading operations at properties in the northern portion of the drainage area and the CSX railroad corridor are unknown but may occur.

3.1.4.2 *Roof Areas*

Potential sources of pollutants for storm water runoff from the two WSBP building roofs and roofs off site and north of the WSBP are unknown but may be present.

3.1.4.3 *Outdoor Storage*

Except for three transformers located in South Side Park, petroleum and hazardous materials are not stored outdoors. Outdoor storage areas in the northern portion of the drainage area and within the CSX railroad corridor are unknown but may be present. Pole-mounted and pad-mounted transformers are likely present in these areas.

3.1.4.4 *Outdoor Manufacturing or Processing*

Outdoor manufacturing or processing activities are not conducted at WSBP. Outdoor manufacturing or processing activities in the northern portion of the drainage area and the CSX railroad corridor are unknown.

3.1.4.5 *Dust or Particulate Generating Activities*

Dust-generating operations or activities, including abrasive blasting or grinding, are not completed at WSBP. Exterior storage, or handling, of bulk materials does not occur at WSBP. On-site traffic is limited to low-speed passenger and delivery vehicles on paved roadways and parking areas associated with the two buildings at South Side Park; vehicle traffic is not expected to generate significant quantities of dust.

Areas within South Side Park are vegetated, paved or gravel-covered and are not expected to generate significant quantities of dust. North Side Park is primarily vegetated or covered with former building floor slabs and wind-blown dust may be generated in this area.

Off-site areas north of the WSBP and the CSX railroad corridor are primarily paved, covered by buildings, vegetated or gravel-covered; areas that may generate wind-blown dust may be present in these areas.

3.1.4.6 Waste Disposal Practices

Wastes generated by occupants of South Side Park buildings are handled and disposed of in accordance with applicable regulations. Hazardous wastes (if any), waste oil (if any) and universal wastes are stored inside the buildings at South Side Park, pending removal by a licensed waste hauler. Covered dumpsters for non-hazardous solid waste (garbage) and recyclable materials (paper waste) are located near each of the buildings. Waste handling practices along the CSX railroad corridor and at private and municipal properties north of WSBP are unknown.

3.1.4.7 Fire Department Training Exercises

The Pittsfield Fire Department periodically has used the northern paved area of South Side Park for ammonia vapor training exercises. Other materials and potential chemicals used during fire training exercises are unknown. Liquid ammonia that is atomized during hazardous material training exercises has the potential to be discharged on the northern paved area in South Side Park.

3.2 SOUTH SIDE PARK DRAINAGE AREA

3.2.1 Description of Drainage Area

South Side Park has changed considerably since PEDA acquired the land in 2005. GE demolished all buildings in the area and either buried or removed the demolition waste before transferring the property. PEDA redeveloped the property, including the following:

- Construction of a new stormwater conveyance system relying on vegetated swales and replacing a system of pavement and pipes
- Creation of vegetated building lots after removal of pavement and building foundations
- Construction of a water quality basin to treat discharges at Outfall 001, replacing a former oil water separator (OWS) which previously treated discharges to Outfall 001. In addition, consolidation of former outfalls into present-day Outfall 001 was completed, and
- Construction of two buildings and associated landscaped, parking and driveway areas

In accordance with a Consent Decree, dated October 27, 2000, PEDA is required to maintain pavement in the following areas of South Side Park where building demolition debris was buried:

- A large parking lot and small paved area in the southeastern portion
- A paved area where the former power plant was located in the northwestern portion, and
- A small paved area in the northeastern portion

The bank building was constructed circa 2012 and is located in the southwest portion of South Side Park on approximately 1.8 acres of land, and includes a 6,700 sq. ft. building, paved parking and driveway areas and landscaped areas. The building is heated by gas and is connected to public water and sanitary sewer systems. There are no fuel tanks associated with the building and use of chemicals or petroleum products (other than small quantities of cleaning and maintenance products) does not occur at the property. Cleaning and maintenance products are stored inside the building. Roof drains are connected to the Stormwater Management System via roof leaders that direct roof runoff to the water quality basin located north of the building. Stormwater runoff from paved areas drains to catch basins in the parking and driveway areas that discharge to the water quality basin. Stormwater in non-paved areas located southwest of the building are conveyed to a swale and catch basin via sheet flow or infiltrates into the ground.



BIC, a 20,000 sq. ft. entrepreneurial center, is located northeast of the bank and west of Woodlawn Avenue on approximately 14 acres of land. The building opened in 2020 and provides regional manufacturers and science, technology, engineering and mathematics (STEM) businesses with research and development equipment, laboratories and training spaces. The building is heated by gas and is connected to public water and sanitary sewer systems. There are no fuel tanks associated with the building and use of chemicals or petroleum products (other than small quantities of cleaning and maintenance products and laboratory chemicals) does not occur at the property. Cleaning and maintenance products and laboratory chemicals are stored inside the building. Roof drains are presumably connected to the Stormwater Management System via roof leaders that direct roof runoff to the water quality basin located west of the building.

The solar array occupies approximately 2 acres in the northwestern portion of South Side Park. Gravel-covered driveways and vegetated areas surround the solar cell array.

Other portions of South Side Park that are currently paved and vacant include the following:

- An approximately 40,000 sq. ft. paved area located north of the north forebay, east of the solar array, and south of the CSX railroad property. The paved area is the location of a former building and is used periodically by the fire department for training exercises. Stormwater runoff from this parking lot sheet flows to the south into the north forebay.
- An approximately 130,000 sq. ft. parking lot located in the former 20s Complex east of Woodlawn Avenue. The parking area is sloped slightly to the north and stormwater runoff is conveyed to gravel-covered drains that discharge to catch basins located north of the parking lot in a landscaped area approximately 1.5 acres in size. Catch basins are connected to the Stormwater Management System.

The South Side Park drainage area generally discharges stormwater runoff from east to west at an average slope of 3.5% into the forebays and water quality basin through overland flow, a series of grass-lined swales and storm sewers. Stormwater quality forebays and the water quality basin were constructed upstream of the box culvert described as Drainage Outfall 001, which conveys stormwater runoff from South Side Park under Silver Lake Boulevard into Silver Lake. National Resources Conservation Service (NRCS) soil surveys indicate the presence of Urban Land soils (Hydrologic Soil Group D) throughout the drainage area. Development in this basin should consider using a Curve Number (CN) of 95 (Table 2.2a, Urban Hydrology for Small Urban Watersheds) when calculating stormwater runoff rates using TR-55 software.

3.2.2 Current and Past Industrial Activities

Industrial activities are currently not conducted at South Side Park. South Side Park was formerly part of the General Electric facility that operated on a portion of the Site until circa 1990. GE operations included the manufacture and servicing of electrical transformers containing PCBs and petroleum products. In addition, GE manufactured military hardware.

3.2.3 Summary of Potential Pollutant Sources

3.2.3.1 Former General Electric Operations at South Side Park

Based on industry knowledge, GE operations at South Side Park likely included the use of PCBs, chlorinated and non-chlorinated volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), petroleum products, and metals. These compounds may be present on the former GE property and downgradient of there in groundwater.



Buried building debris containing PCBs and potentially other contaminants (e.g., petroleum or lead-based paint), is reportedly located under the paved area located in the northwestern portion of South Side Park (east of the solar array), under a paved area in the southeastern portion of South Side Park (parking area associated with BIC) and under a small paved area in the northeastern portion of the South Side Park.

3.2.3.2 *Transformer Oil*

There are three pad-mounted electrical transformers in South Side Park. One is located west of the bank building and two are located near the Berkshire Innovation Center. The three transformers are presumably owned by Eversource and are identified as “Non-PCB” (less than 2 parts per million of PCBs).

3.2.4 **Spills and Leaks**

According to PEDAs, spills or leaks have not been reported at South Side Park during the past three years. If spills occur in the future, the SWPPP will be updated and the reported spills and/or leaks will be listed on the spill summary table presented in Appendix E of this SWPPP.

3.3 **CSX RAILROAD TRACKS DRAINAGE AREA**

3.3.1 **Description of Drainage Area**

The CSX rail corridor bisects South Side Park and North Side Park and is not owned, operated, or controlled by PEDAs.

The CSX railroad right-of-way consists of approximately 3 acres and is currently developed with railroad tracks, ballast and associated infrastructure. Five railroad tracks, laid east to west, are approximately 5 ft. below grade of the adjacent North Side Park and 15 ft. above grade of the adjacent South Side Park. Ground surface of the railroad right-of-way is covered with processed gravel. Stormwater runoff in this area either infiltrates into the ground or is conveyed downslope to South Side Park or into an area drain reportedly present in the railroad corridor.

The drainage area is generally flat from east to west, discharging stormwater runoff through infiltration. Historical drawings show an “area drain” (aka catch basin) and 18” vitrified clay pipe (VCP) located centrally within the drainage area running east to west that is understood to convey stormwater runoff from this area and North Side Park drainage area (see Figure 2). This 18” VCP is understood to combine with the 48” reinforced concrete pipe (RCP) storm sewer which conveys stormwater runoff south to the South Side Park drainage basin. NRCS soil surveys indicate the presence of Urban Land soils (Hydrologic Soil Group D) throughout the drainage area. Development in this basin should consider using a CN of 91 (Table 2.2a, Urban Hydrology for Small Urban Watersheds) when calculating stormwater runoff rates using TR-55.

3.3.2 **Industrial Activities**

Potential industrial activities within the CSX railroad property are unknown but may include equipment maintenance and repair.

3.3.3 **Summary of Potential Pollutant Sources**

Railroads are used for transportation of various goods and materials. Materials being transported may include potential hazardous materials, petroleum-based products, and other chemicals. Spills or leaks of chemicals and petroleum products may occur during transportation activities.



Based on industry knowledge, other potential pollutant sources may include contaminants along the railroad corridor due to chemical applications, releases from train equipment and contamination associated with equipment repair and maintenance along the tracks.

Some of these potential pollutant sources include the following:

- Railroad ties that are treated with chemicals including creosote and arsenic-containing compounds
- Disposal/emplacment of coal ash and cinder containing elevated levels of lead, arsenic and other metals
- Application of herbicides/pesticides
- Petroleum products containing PCBs and elevated levels of metals, and
- Fossil fuel combustion products (polynuclear aromatic hydrocarbons (PAHs))

In addition, since it is expected that materials/chemicals used, and products produced, by GE were shipped via the CSX rail line, soil, gravel, and underlying groundwater may contain contaminants associated with GE operations.

The presence of transformers along the rail line is unknown, however it is expected that several pole-mounted transformers are present. Any transformers would contain petroleum products and may contain PCBs.

3.3.4 Spills and Leaks

The occurrence of spills or leaks along the CSX rail line is unknown. If PEDDA becomes aware of any spills or leaks that have occurred within the last three years associated with this drainage area, the SWPPP will be updated and the reported spills and/or leaks will be listed on the spill summary table presented in Appendix E.

3.4 NORTH SIDE PARK DRAINAGE AREA

3.4.1 Description of Drainage Area

As described in Section 3.1.1.3, the North Side Park drainage area consists of approximately 26 acres and is currently developed with concrete floor slabs remaining after the existing structures were removed. The drainage area generally discharges stormwater runoff from north to south at an average slope of 4%. Stormwater runoff sheet flows to the south or is collected and infiltrated or conveyed through a series of existing area drains/catch basins and storm sewers. Historical drawings indicate that a 30" RCP conveying stormwater runoff from the municipal and private-owned drainage area bisects the North Side Park drainage area. This storm sewer is understood to combine in a manhole located at the central southern edge of North Side Park with a 18" storm sewer conveying storm sewer runoff from the North Side Park drainage area. Discharge is conveyed from this manhole to the south through a 48" RCP under the CSX railroad corridor into the South Side Park drainage area. NRCS soil surveys indicate the presence of Urban Land soils (Hydrologic Soil Group D) throughout the drainage area. Development in this basin should consider using a CN of 95 (Table 2.2a, Urban Hydrology for Small Urban Watersheds) when calculating stormwater runoff rates using TR-55.

3.4.2 Current and Past Industrial Activities

Industrial activities are not currently conducted at North Side Park.



North Side Park was formerly part of the General Electric facility that operated here until circa 1990. GE operations included the manufacture and servicing of electrical transformers containing PCBs and petroleum products. In addition, GE manufactured military hardware. Information on specific activities completed by GE on WSBP property was not readily available.

North Side Park was transferred from GE to PEDA in 2011/2012 and includes an area previously known as the "Teens Complex" (or the "19s Complex") in the eastern portion of North Side Park. Several GE buildings were formerly located in this area which were demolished by GE between 2001 and 2010. During Site cleanup activities, approximately 12,500 cu. yd. of crushed demolition debris (brick and concrete) was placed on-site in the Teens Complex.

The 40s Complex was located in the western portion of North Side Park and was developed with several buildings that were demolished between 1993 and 2006.

The Teens and 40s Complexes are currently undeveloped and are primarily paved or covered with former building slabs; a stockpile area is located in the western portion of the 40s Complex that is currently vegetated. The stockpile was constructed of crushed building debris that was generated during GE building demolition and Site cleanup activities at the 40s Complex. The temporary stockpile was reportedly covered with 4 inches of clean vegetated topsoil.

PEDA has plans to redevelop North Side Park in a similar fashion to South Side Park, however no redevelopment activities have occurred yet.

3.4.3 Summary of Potential Pollutant Sources

The following description is based on ZUVIC's industry knowledge of potential chemical and petroleum product use at facilities that manufacture electrical equipment and hardware, contamination of environmental media that may occur as a result of these operations, and use of hazardous materials in building materials.

Former GE operations likely included the use of chlorinated and non-chlorinated VOCs, SVOCs, petroleum products, and metals. PCB contaminated building materials and soil are reportedly present at North Side Park based on information contained in the January 2011 Final Completion Report for the 40s Complex Removal Action (January 2011 report) and the November 2011 Final Completion Report for East Street Area 2-North Removal Action (November 2011 report), which were both prepared by ARCADIS of New York, Inc. for GE. Other contaminants, including chlorinated and non-chlorinated VOCs, SVOCs, petroleum constituents and metals may also be present on the former GE property and downgradient of there in groundwater.

As described in the January 2011 report, building debris is present in the 40s Complex in certain manholes and catch basins, tunnels and in the vegetated stockpile. In addition, as described in the report, approximately 12,500 cy of crushed building debris were reused (buried) in the Teens Complex.

According to EPA, based on preliminary source tracking, subsurface drainage infrastructure in the Teens Complex appears to be the primary source of PCBs discharging from Outfall 001.

3.4.4 Spills and Leaks

According to PEDA, spills and leaks have not been reported in North Side Park in the past three years. If spills occur in the future, the SWPPP will be updated and the reported spills and/or leaks will be listed in the spill summary table presented in Appendix E.

3.5 MUNICIPAL AND PRIVATE PROPERTIES DRAINAGE AREA

3.5.1 Description of Drainage Area

As described in Section 3.1.1.4, the municipal and privately-owned properties drainage area consists of approximately 90 acres and is currently developed as medium-density residential and urban downtown commercial properties. The drainage area generally discharges stormwater runoff from north to south at an average slope of 6%. Stormwater runoff sheet flows to the south or is collected and conveyed through a series of existing catch basins and storm sewers. The existing 15" VCP storm sewer in Kellogg Street conveys stormwater runoff from Parker and Plunkett Streets to the east. The existing 30" storm sewer in Kellogg Street conveys stormwater runoff from Forest Street, Woodlawn Avenue and the streets to the north of the intersection of Woodlawn Ave, Tyler Street and Dalton Ave. Stormwater runoff from the municipal and privately-owned properties drainage area is conveyed via a 30" RCP through North Side Park and the CSX railroad corridor to South Side Park as previously described. NRCS soil surveys indicate the presence of Pittsfield-Urban Land soils (Hydrologic Soil Group D) throughout the drainage area. Development in this basin should consider using a CN of between 90 and 100 (Table 2.2a, Urban Hydrology for Small Urban Watersheds) when calculating stormwater runoff rates using TR-55.

3.5.2 Industrial Activities

Industrial activities may occur at one or more of the municipal and privately-owned properties in the northern portion of the drainage area, however these activities are unknown.

3.5.3 Summary of Potential Pollutant Sources

Potential pollutant sources that may be present on private and municipal properties are unknown.

The presence of transformers is unknown, however it is expected that several pole-mounted transformers are present in the northern portion of the drainage area at/near municipal, residential and commercial properties. Pad-mounted transformers may also be located in these areas. Any transformers would contain petroleum products and may contain PCBs.

3.5.4 Spills and Leaks

The occurrence of spills or leaks in the northern portion of the drainage area at/near municipal, residential and commercial properties not owned or operated by PEDDA is unknown. If PEDDA becomes aware of any spills and leaks that have occurred within the last three years associated with this drainage area, the SWPPP will be updated and the reported spills and/or leaks will be listed on the spill summary table presented in Appendix E.

3.6 AUTHORIZED NON-STORMWATER DISCHARGES

Pursuant to Section 1.2.2.1 of the 2021 MSGP, discharge of waters from the following sources is allowable provided that all discharges comply with the effluent limits set forth in Parts 2 and 8 of the 2021 MSGP (see Appendix A).

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



- Irrigation/landscape drainage, provided all pesticides, herbicides, and fertilizers have been applied in accordance with approved labeling
- Pavement wash waters, provided that detergents or hazardous cleaning products are not used (e.g., bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols), and the wash waters do not come into contact with oil and grease deposits, sources of pollutants associated with industrial activities (see Part 6.2.3 of the 2021 MSGP), or any other toxic or hazardous materials, unless residues are first cleaned up using dry cleaning methods (e.g., applying absorbent materials and sweeping, using hydrophobic mops/rags) and appropriate control measures have been implemented to minimize discharges of mobilized solids and other pollutants (e.g., filtration, detention, settlement)
- External building/structure washdown / power wash water that does not use detergents or hazardous cleaning products (e.g., bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols) and appropriate control measures have been implemented to minimize discharges of mobilized solids and other pollutants (e.g., filtration, detention, settlement), and
- Uncontaminated groundwater or spring water

The following allowable non-stormwater discharges may occur at the Site:

- Lawn irrigation water runoff near MountainOne bank and BIC
- Uncontaminated condensate from air conditioning units at MountainOne Bank and BIC, and
- Discharges of potable water from building fire protection systems during testing of sprinkler systems or fire-fighting activities

4.0 POLLUTION PREVENTION SYSTEM

4.1 GENERAL REQUIREMENTS

The stormwater pollution prevention system detailed in this section is designed, operated and maintained to ensure that stormwater discharges meet the following requirements of the Permit:

- Stormwater discharge will not include any visible scum, oil, or other matter, excluding naturally occurring substances such as leaves and twigs, provided no person has placed such substances in or near the discharge.
- Stormwater discharge will not result in pollution due to acute or chronic toxicity to aquatic and marine life, impair the biological integrity of aquatic or marine ecosystems, or result in an unacceptable risk to human health.
- Stormwater discharge will not cause or contribute to an exceedance of the applicable Water Quality Standards in the receiving water.

4.2 CONTROL MEASURES (BEST MANAGEMENT PRACTICES)

The Site will use best management practices (BMPs) to reduce or eliminate the potential for discharge of pollutants in stormwater, using technologically-available and economically-practicable and achievable control measures, as required by the Permit. Control measures are the best management practices including other structural/non-structural practices used to prevent or minimize discharge of pollutants to stormwater. Management procedures, structural controls and employee training provide the most cost-effective means of stormwater management.

Throughout the term of the Permit, BMPs to eliminate discharge of PCBs to Silver Lake will be developed and instituted in accordance with the permit. These BMPs will include the following:

- Identify sources of PCBs that contribute PCBs to stormwater.

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- Optimize removal of PCBs from stormwater by techniques including cleaning stormwater conveyance structures, pavement sweeping and enhancing the storage capacity of the water quality basin.
- Minimize discharge of stormwater containing PCBs by completing source control and elimination of PCBs from soil, sediment, stormwater and groundwater entering the stormwater conveyance system by disconnecting, relining, replacing or abandoning appropriate conveyance structures or other measures leading to elimination of PCBs in stormwater.
- Prepare design standards (e.g., procedures and protocols) to eliminate discharges containing PCBs.
- Complete ongoing evaluation of drainage structures and routinely sample discharges for PCBs.
- Conduct a pH study to demonstrate that the pH in Silver Lake does not exceed the range of 6.5 to 8.3 S.U., including preparation of a work plan for the study based on guidance provided by MassDEP.

Control measures will be selected and designed with the following in mind:

- Preventing stormwater from coming into contact with polluting materials is generally more effective, and less costly, than trying to remove pollutants from stormwater.
- The use of stormwater control measures in combination may be more effective than using control measures in isolation for minimizing pollutants in stormwater discharges.
- Assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to designing effective stormwater control measures that will achieve limits in the Permit.
- Minimizing impervious areas during future construction at PEDDA-owned property and infiltrating stormwater on site (including bioretention cells, green roofs, and pervious pavement) which can reduce the frequency and volume of discharges and improve ground water recharge and stream base flows in local streams.
- Attenuating flow using open vegetated swales and natural depressions can reduce in-stream impacts of erosive flows.
- Conserving and/or restoring riparian buffers will help protect streams from stormwater discharges and improve water quality.
- Using treatment interceptors (e.g., swirl separators and sand filters) may be appropriate in some instances to minimize the discharge of pollutants.
- Implementing structural improvements, enhanced/resilient pollution prevention measures, and other mitigation measures can help to minimize impacts from stormwater discharges from major storm events.
- Additional stormwater control measures that may be considered include the following:
 - Reinforce materials storage structures to withstand flooding and additional exertion of force.
 - When a delivery of exposed materials is expected, and a storm is anticipated within 48 hours, delay delivery until after the storm or store materials as appropriate.
 - Temporarily store materials and waste above the base flood level.
 - Temporarily reduce or eliminate outdoor storage.
 - Temporarily relocate any mobile vehicles and equipment to higher ground.
 - Develop scenario-based emergency procedures for major storms that are complementary to regular stormwater pollution prevention planning and identify emergency contacts for staff and contractors.
 - Conduct staff training for implementing emergency procedures at regular intervals.

Control measures will also include those required by Section 2.5.2 of the EPA 2017 NPDES Remediation General Permit (RGP) (MAG910000) (presented in Appendix A), including the following BMPs:

- Effluent flow BMP that prevents discharge in exceedance of the design flow of the discharge and documentation of the methods for measuring effluent flow.
- Preventative maintenance BMP that includes the following:
 - Procedures and protocols that ensure all control measures used to achieve the limitations in the Permit remain in effective operating condition
 - A maintenance schedule for control measures, and
 - Recordkeeping documenting completion of regular maintenance activities
- Site management BMP that includes control measures which ensure proper management of solid waste and prevents solids, sludge, and other pollutants from entering Silver Lake.
- Pollutant minimization BMP that includes identification and assessment of the type and quantity of pollutants.
- Administrative control BMP that includes the following:
 - Documentation of Site security procedures
 - Documentation of employee training conducted at least annually
 - Procedures for initiating corrective action and revision of control measures

- Actions and reporting related to discovery of a Permit violation, and
- Schedule for routine inspections
- Quality assurance/quality control (QA/QC) BMP that includes the following:
 - Description of applicable monitoring requirements
 - Map showing the location of each monitoring point with a geographic identifier
 - Specifications for the number of samples, type of sample containers, type of preservation, holding times, type and number of quality assurance field samples (i.e., matrix spiked and duplicate samples and sample blanks), sample preparation requirements (e.g., sampling equipment calibration, clean sampling procedures), and sample storage and shipping methods, including EPA QA/QC and chain-of-custody procedures, and
 - Name(s), address(es), and telephone number(s) of the laboratories that will be used for sample testing

Note that as required by the Permit, the QA/QC BMP will be implemented in 2022.

- Materials management BMP that includes the following:
 - Good housekeeping practices
 - Material compatibility determination and practices
 - Documentation of product name, chemical formula, and manufacturer of any chemicals stored at WSBP
 - Purpose for use of the chemical
 - Safety Data Sheet (SDS) and CAS number for each chemical
 - Frequency, duration, magnitude, and method of application for the chemical
 - Material compatibility risks for storage of the chemical;
 - Vendor's reported aquatic toxicity
 - Description of material management control measures employed and any measures taken to ensure material compatibility
 - Spill prevention practices and spill control measures, including handling and collection methods, that reduce spills and leaks at WSPB, and
 - Required actions upon detection of a leak, spill, or other release containing a hazardous substance or oil including cessation of the discharge immediately and notification to EPA within twenty-four (24) hours, identification and corrective action, and documentation and reporting

4.2.1 Good Housekeeping

Good housekeeping is an essential component of stormwater management and the most practical and cost-effective way to prevent potential pollutant sources from coming into contact with stormwater. The goal is to minimize the generation of dust and off-site tracking of sediment from the Site, and to ensure that Site stormwater does not carry waste, garbage, and floatable debris to receiving waters.

Good housekeeping practices are employed at WSBP for all storage areas (inside or outside the building) of potential pollutants:

- Wastes, chemicals, and petroleum products are stored in labeled containers made of materials that are compatible with the material stored.
- Containers are kept closed when not in use.
- Containers with a capacity of 55 gallons or more are stored in diked areas or on containment pallets except if they are empty.
- Containers are arranged neatly, ensuring they do not protrude into pathways or other traffic areas, and with sufficient room for visual inspection.



- Storage areas are inspected frequently, and any leaks or spills are investigated and promptly cleaned up.

Good housekeeping practices are also utilized at WSBP to minimize stormwater pollution:

- Indications of staining, discoloration or other signs of contaminants are promptly investigated and cleaned up.
- Outside areas are maintained free of litter and debris.
- Materials are stored in covered areas.
- Containment areas are kept free of debris, stormwater and other materials that would reduce the available containment volume below the minimum required.
- Trash containers are kept covered.

4.2.2 Vehicle or Equipment Washing

The MSGP does not authorize or allow discharges of wastewater generated during the washing or rinsing of vehicles; these activities are not permitted at WSBP but cannot be controlled in the area north of WSBP at municipal and privately-owned properties. External building/structure washing that does not use detergents or hazardous cleaning products is permitted provided appropriate control measures are implemented to minimize discharges of mobilized solids and other pollutants. Washing of buildings or materials is not permitted at WSBP unless cleaning chemicals are not used and control measures are in place.

4.2.3 Floor Drains

The MSGP does not authorize or allow discharges from interior floor drains to storm sewers or stormwater collection systems which discharge to surface waters. Floor drains currently in use at the WSBP buildings drain to the sanitary sewer system. The presence, and discharge locations, of floor drains at municipal and privately-owned properties in the northern portion of the drainage area are unknown.

4.2.4 Roof Areas

There are currently no roofs subject to drippage, dust or particulate accumulation from vents, stacks, or blowers at WSBP. Stormwater from roof drains discharge either directly to the Stormwater Management System via piping, or to the ground near the buildings. The presence, and discharge location, of roof areas where pollutants may enter stormwater at municipal and privately-owned properties north of the WSBP are unknown.

4.2.5 Exposure Minimization

An effective way to minimize stormwater pollution is to eliminate opportunities for stormwater to come into contact with industrial activities or polluting materials. Except as described in Section 3.0, potential pollutants are not stored outside at WSBP where they would be exposed to stormwater. The only outdoor storage is in oil-filled fully-contained equipment (i.e., transformers) presumably owned by Eversource. The primary potential source of stormwater pollution at WSBP is from contaminants that may be present in exposed soil and/or building materials attributed to former GE operations at WSBP.

The presence of contaminants at municipal and privately-owned properties north of the WSBP are unknown.

4.2.6 Sediment/ Erosion Control



Except for landscaped and vegetated areas in South Side Park and in the western portion of North Side Park in the 40s Complex, all drainage areas are paved with asphalt or concrete. Therefore, there is minimal potential for soil erosion under normal circumstances.

The presence of areas where erosion may occur at municipal and privately-owned properties north of WSBP is unknown.

4.2.7 Management of Stormwater Runoff

PEDA has implemented stormwater management and treatment measures determined to be reasonable and appropriate to minimize discharge of pollutants from WSBP. The primary method of managing/treating stormwater runoff from the drainage area is a water quality basin and two associated forebays that receive stormwater discharges from the drainage area as discussed in Section 3.1.2. Stormwater enters the forebays where entrained particulate matter settles prior to discharge to the water quality basin for further solids settlement before being discharged to Silver Lake. The measures in place at Outfall 001 are discussed in the following paragraphs and in Section 3.1.2.

4.2.8 Site Activities

PEDA will select, design, implement, and maintain control measures for stormwater associated with WSBP activities to minimize discharge of nutrients, including nitrogen and phosphorus, from the Site to Silver Lake. The following BMPs will be implemented, at a minimum.

- Procedures to minimize the use of pesticides, herbicides, and fertilizers. Procedures will include requirements for use of slow-release fertilizers on PEDA-owned property, in addition to reducing and managing fertilizer use (i.e., proper use, storage, and disposal of pesticides, herbicides, and using only in accordance with manufacturer's instructions).
- Practices for lawn maintenance and landscaping activities at PEDA-owned property that are protective of water quality. Practices include reduced mowing frequency, proper management and disposal of grass clippings and leaf litter and use of alternative landscaping materials (e.g., drought resistant planting). Blowing organic waste materials onto adjacent impervious surfaces will be prohibited.
- Routine sweeping of paved parking and driveway areas at PEDA-owned property at a minimum frequency of once per month.

PEDA has no control over the use of pesticides, herbicides and fertilizers at properties that are outside (north) of WSBP, nor of lawn maintenance or landscaping practices at these properties.

4.2.9 Inspections and Preventative Maintenance

PEDA has implemented, or will implement, a program that includes inspection and maintenance to avoid introduction of pollutants to stormwater.

Quarterly inspections of outdoor storage of oil-filled equipment (e.g., transformers), chemical and petroleum storage areas and stormwater management devices will be conducted as specified in Section 5.1. The results of the inspections will be documented on forms in Appendix H. Pollution Prevention Team personnel will perform inspections of stormwater management structures including on-site catch basins, the north and south forebays, the water quality basin, and Outfall 001 to ensure that the structures are in working order and are not clogged or backed up with sediment, trash, or leaf debris.

Preventative maintenance will be completed monthly or on an as-needed basis to avoid releases of pollutants to stormwater. Preventative maintenance ensures controls are effective, and



transformers/equipment are kept in good operating condition. Areas where preventative maintenance may be required include catch basin sumps, sediment accumulation areas, areas subject to erosion, dumpsters and roll-offs and vehicle parking and travel areas. Trash pickup from exterior locations is routinely completed at WSBP. Periodic maintenance of the water quality basin, and forebays will also be completed, and may include sediment removal, replacement of riprap and placement of vegetation in unvegetated areas.

4.2.10 Spill Prevention and Response Procedures

In addition to the Best Management Practices described in this SWPPP, spill prevention and response procedures will be developed in 2022 and implemented at WSBP if required for any future exterior oil or chemical storage, secondary containment. If a small leak or spill occurs, it will be promptly contained and cleaned up by trained tenants or contractors responsible for the spill. In the event of a larger spill, tenants will immediately notify the PEDAs director and PEDAs will immediately notify emergency response contractors as required to assist with the cleanup. All PEDAs personnel who engage in emergency spill response activities receive annual training on the SWPPP, WSBP spill prevention and emergency response procedures, and on the proper use of spill response equipment.

4.2.10.1 Containment

There are no aboveground, outdoor liquid chemical storage areas or areas used for the collection, storage or treatment of wastewater at WSBP. Procedures for any future unloading/loading of oil and hazardous materials at WSBP (based on redevelopment) will be developed and included in Appendix F of the SWPPP.

4.2.10.2 Dumpsters

Containers for waste or recyclable materials are normally kept inside the WSBP buildings except for one covered dumpster located near each building at South Side Park. Additional waste containers may be temporarily located at WSBP for short-term construction or demolition projects. All dumpsters remain covered.

4.2.10.3 Loading Docks

Materials being delivered to the two buildings are delivered to the front entrances. There are no loading docks at the two buildings at WSBP.

4.2.11 Employee Training

As part of their emergency response and spill prevention training, PEDAs employees are trained within 90 days of employment and annually thereafter on the components and goals of the SWPPP. Training topics include the following:

- Location and use of emergency equipment
- Spill response procedures
- Spill prevention and control measures
- Inspection requirements, and
- Good housekeeping and materials management practices

If applicable, standard operating procedures will be used by PEDAs personnel or tenants for receiving, storing and transferring chemicals and chemical waste at WSBP to reduce the likelihood of storm water contamination. No transfer operation will be performed at WSBP by unauthorized personnel or by personnel not instructed in the specific operation of the equipment being used.



In accordance with the Permit, initial employee training and annual refresher training will be conducted under the supervision of the Pollution Prevention Team. Records of employee training will be included in Appendix G and will include the date(s), employee name, employee responsibility and topics covered.

4.2.12 Non-Stormwater Discharges

A non-stormwater discharge evaluation has not been completed for WSBP and will be completed for the WSBP property in 2022. The results of the evaluation will be included in Appendix B.

Current knowledge indicates that there are no non-stormwater discharges at the Site other than those allowed by the Permit (Section 3.6) and discharges of untreated fire protection system water (for training, testing or fire-fighting activities) that is conducted periodically in the paved area in the northwestern portion of South Side Park.

4.2.13 Solid De-Icing Material Storage

Large quantities of de-icing materials are not stored outside on the Site. Small, covered containers (e.g., 5 gallon buckets, 20 to 40 lb bags) of de-icing materials may be stored near doorways of the buildings for hand application to exterior walkways.

5.0 INSPECTIONS

5.1 ROUTINE SITE INSPECTIONS AND DOCUMENTATION

In accordance with the Permit, qualified personnel who are members of the Stormwater Pollution Prevention Team will conduct inspections at least quarterly (i.e., once each calendar quarter) at the Site. At least once each calendar year, the routine inspection will be conducted during a period when a stormwater discharge is occurring and at least once per year, the inspections will be completed during a storm event. The inspection will be conducted using the checklist in Appendix H and will include the following:

- Visual inspection of the discharge point to Silver Lake (Outfall 001)
- Visual inspection of material handling areas, industrial activities (if any) and other potential sources of pollution for evidence of, or the potential for, pollutants entering the stormwater drainage system
- Observation of the structural stormwater management measures, control measures, and other pollution prevention measures identified in the SWPPP to ensure that they are properly implemented and maintained
- Visual inspection of equipment needed to implement the plan, such as spill response equipment, and
- Visual inspection of areas where spills and leaks have occurred in the past three years (if applicable)

The following, as applicable, will be observed:

- 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
- Off-site tracking of wastes or sediment where vehicles enter or exit the Site
- Tracking or blowing of materials from areas of no exposure to exposed areas



- Erosion of soil, and channel streambank erosion near the discharge point (Outfall 001) and other areas potentially subject to erosion
- Non-authorized stormwater discharges
- Control measure that need repair, maintenance or replacement, and
- Control measures for proper functionality

At the completion of each quarterly routine inspection, an inspection report will be prepared using the completed inspection checklist and signed by the inspector(s). The report will include the following:

- The scope of the inspection
- The personnel who participated in the inspection
- The date(s), time(s) and weather conditions at time of the inspection
- All observations made relating to the SWPPP, including description of stormwater discharges that are occurring, previously-unidentified stormwater discharges and/or pollutants, evidence of, or the potential for, pollutants to enter the stormwater system, physical conditions near Outfall 001, the water quality basin and forebays, flow dissipation devices, evidence of pollutants in discharges and Silver Lake and control measures that need repair, maintenance or replacement
- Additional control measures required to comply with the permit
- Incidents of non-compliance
- Actions taken to address deficiencies identified
- Updates made to the SWPPP because of the quarterly routine inspections

The completed inspection report will be reviewed and signed by the inspector and a PEDA-authorized representative. The reports will be retained in Appendix H of the SWPPP for three years from the date of the inspection. A summary of quarterly inspections will be provided in an Annual Report to EPA.

If the inspection indicates that the control measures used to prevent stormwater pollution are inadequate or are not being properly operated or maintained, PEDA will review and revise the control measures to ensure that the condition is eliminated and will not occur in the future. Any changes to the control measures and procedures in use at the Site will be documented in the SWPPP in Appendix H.

6.0 MONITORING REQUIREMENTS

Stormwater discharges from the drainage area will be monitored on a periodic basis to ensure compliance with Permit objectives. Section 6.1 of the SWPPP describes the procedures for collecting, analyzing, and recording the results of required stormwater samples. Section 6.2 describes the periodic monitoring that is required for stormwater Outfall 001.

6.1 STORMWATER MONITORING PROCEDURES

6.1.1 Sample Collection

6.1.1.1 Preparation

Prior to a stormwater sampling event, qualified personnel will obtain the appropriate kind and number of clean sample containers from the analytical laboratory. The containers will be prepared with any required preservatives and containers used to collect bacteriological samples (e.g., *E. coli*) will be sterilized. Sample containers will be labeled with the following information:

- Facility name and address
- Sample location (i.e., Outfall 001)



- Name or initials of the person collecting the sample
- Parameter and associated analytical method
- Sample type (usually “grab”)
- Sample preservation notes, and
- Date and time of sample collection

An additional clean, clear, glass or plastic container will be obtained from the laboratory for the quarterly visual assessment. Disposable, powder-free gloves will be worn while handling sample containers and during sampling.

6.1.1.2 *Timing of Samples*

Samples will be collected as follows:

- All stormwater samples will be collected from discharges resulting from a storm event that occurs at least 72 hours after any previous storm event generating a stormwater discharge.
- The sample will be collected during the first 30 minutes of a storm event discharge (flow at the sampling location).
- All discharge samples will be collected during the same storm event.
- A sample of uncontaminated rainwater will be collected and measured for pH.

6.1.1.3 *Collection Method*

Grab samples will be collected for visual assessment and effluent monitoring and samples will be representative of the discharge. Samples will be collected from the box culvert outfall (Outfall 001) that receives final effluent from the water quality basin. Samples will be collected directly into the containers provided by the laboratory.

Sample containers will be filled nearly full but will not be rinsed or overfilled (to prevent loss of any preservative). Care should be taken to ensure that debris (e.g., pieces of leaves or twigs) is not entrained in the sample. Disposable gloves will be worn while sampling. The inside of the bottle or lid will not be touched, even if wearing gloves.

6.1.1.4 *Sample Handling and Transport*

Sample handling and transport will be completed as follows:

- Samples for pH will be analyzed within 15 minutes of collection.
- Samples will be kept refrigerated until they are delivered to the laboratory, which will be as soon as practicable but within the allowable method-specific hold time.
- The Sample Custody form will be completed when samples are collected, and any time sample custody is transferred.
- Any sample containing snow or ice melt will be identified on the Stormwater Discharge Monitoring Data Form and in the Stormwater Discharge Monitoring Report (DMR) (see Appendix I).

6.1.2 **Storm Event Information**

The following information will be recorded for each stormwater monitoring event using the Stormwater Discharge Monitoring Data Form in Appendix I:

- The date, discharge temperature, time of the start of the discharge, time of sampling, and magnitude (in inches) of the storm event sampled
- The pH of uncontaminated rainfall (before it contacts the ground)



- The duration between the storm event sampled and the end of the most recent storm event that produced a discharge, and
- Whether the sample contains snow or ice melt

The completed form will be retained at PEDA offices with the SWPPP for a period of three years from the sampling event.

6.1.3 Analytical Procedures

Except for visual monitoring and pH measurements conducted by monitoring personnel, all sample analyses will be conducted by a certified laboratory according to methods prescribed in 40 CFR 136 or required under 40 CFR Chapter I, Subchapter N or O, for analyses of pollutants or pollutant parameters (except whole effluent toxicity (WET)). Acute toxicity biomonitoring tests will be conducted according to the procedures and protocols specified in USEPA Region 1 Freshwater Acute Toxicity Test (WET) Procedure and Protocol document included in the NPDES Permit for the Site (See Appendix A).

6.1.4 Inability to Collect a Sample

If a required sample is not obtained during the monitoring period, this will be documented on the Stormwater Monitoring Data Form and in the cover letter to the Stormwater Discharge Monitoring Report (DMR) along with the reason for failure to obtain a sample. Acceptable reasons are the absence of a 72-hour period of dry weather, the absence of a rain event that produces a stormwater discharge, or safety considerations preventing access to a stormwater discharge location. Timing of a rain event is not an acceptable reason for a failure to sample unless it precludes the analysis of a parameter within the acceptable hold time specified in the test method.

6.2 REQUIRED STORMWATER DISCHARGE MONITORING

The following sections describe each type of monitoring in detail and the actions that will be taken when monitoring results do not meet effluent limitations.

6.2.1 Quarterly Visual Assessment/Monitoring

Stormwater discharge at Outfall 001 will be visually assessed by a member of the Stormwater Pollution Prevention Team once per quarter for the duration of the permit using the following procedures:

- Collect a sample of the discharge in a clean, colorless glass or plastic container within the first 30 minutes of a discharge event.
- The discharge event must be at least 72 hours after any previous discharge.
- Assess the sample in a well-lit area for color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen and other obvious indicators of pollution.

At the completion of each quarterly visual assessment, the results of the assessment will be documented on the Stormwater Discharge Monitoring Data (DMR) form and the visual assessment will be documented on the visual assessment form in Appendix I and included in the SWPPP. The documentation will be reviewed and signed by the person who completed the assessment and monitoring and by a PEDA-authorized representative. The documentation will include the following:

- Personnel who participated in the assessment.
- Sample location, and collection and visual assessment dates and times.
- Nature of the discharge (i.e., stormwater from rain or snow).



- Results of observations of the discharge sample.
- Probable sources of any observed contamination in the sample.
- If applicable, a statement regarding why the sample could not be collected within the first 30 minutes of discharge.

If the visual assessment indicates that the control measures used to prevent stormwater pollution are inadequate or are not being properly operated or maintained, PEDa will review and revise the control measures to ensure that the condition is eliminated and will not occur in the future. Any changes to the control measures and procedures in use at the Site will be documented in Appendix H.

The visual assessment documentation will be retained in Appendix I for three years from the date of the assessment. A summary of quarterly visual assessments will be provided in the Annual Report to EPA.

6.2.2 Effluent Limitations and Monitoring Requirements

During the period beginning with the effective date of the Permit and lasting through its expiration, PEDa is authorized to discharge treated stormwater and groundwater through Outfall 001 to Silver Lake. The discharge will be limited, and discharge samples collected and tested as specified in the Permit and described below.

Effluent Characteristics Parameter	Unit	Discharge Limitation		Monitoring Requirements ^{1,2}	
		Average Monthly	Maximum Daily	Measurement Frequency ³	Sample Type
Flow ⁴ including reported precipitation at Pittsfield Airport	MGD	Report	Report	Whenever discharge occurs	Meter or Estimate
Oil & Grease	mg/L	Report	15	1/Month	Grab
TSS	mg/L	30	100	1/Month	Grab
pH ⁵		6.5 – 9.0 S.U.		1/Month	Grab
Escherichia coli	cfu/100ml	Report	Report	1/Year	Grab
Total Nitrogen	mg/L lb/day		Report	2/Year	Grab
PCBs, Total ^{6,7}	µg/L	Report	Report	1/Month	Grab
Whole Effluent Toxicity ^{8,9,10}	Acute LC50 – Report			2/Year	Grab
Total Hardness	mg/L	Report	Report		
Total Suspended Solids	mg/L				
Specific Conductance	µmhos/cm				
Ammonia Nitrogen	mg/L				
Total Residual Chlorine	µg/L				
Total Cadmium	µg/L				
Total Lead	µg/L				
Total Copper	µg/L				
Total Zinc	µg/L				
Total Nickel	µg/L				
Total Aluminum	µg/L				



Effluent Characteristics Parameter	Unit	Discharge Limitation		Monitoring Requirements ^{1,2}									
		Average Monthly	Maximum Daily	Measurement Frequency ³	Sample Type								
<p><u>Footnotes:</u></p> <p>1. Samples will be collected from the box culvert that receives final effluent from the water quality basin, unless otherwise specified. Samples will be representative of the discharge.</p> <p>2. In accordance with 40 C.F.R. § 122.44(i)(l)(iv), the Permittee will monitor according to sufficiently sensitive test procedures (i.e., methods) approved under 40 C.F.R. Part 136 or required under 40 C.F.R. Chapter I, Subchapter N or O, for the analysis of pollutants or pollutant parameters (except WET). A method is "sufficiently sensitive" when: 1) The method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter; or 2) The method has the lowest ML of the analytical methods approved under 40 C.F.R. Part 136 or required under 40 C.F.R. Chapter I, Subchapter N or O for the measured pollutant or pollutant parameter. The term "minimum level" refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL), whichever is higher. Minimum levels may be obtained in several ways: They may be published in a method; they may be based on the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a laboratory, by a factor.</p> <p>3. Measurement frequency of 1/month is defined as the sampling of one discharge event in each calendar month. Measurement frequency of 1/year is defined as the sampling of one discharge event during one calendar year. If no sample is collected during the measurement frequencies defined above, the Permittee must report an appropriate No Data Indicator Code.</p> <p>4. Report the monthly average and maximum daily flows. The monthly average flow is defined as the average flow per day of discharge. Also, report the flow from Outfall 001 and precipitation measured at the Pittsfield Airport or another nearby site for each day of the month as an attachment to the DMR. In the event of inclement weather, the permittee is allowed to estimate flow.</p> <p>5. The pH of the effluent will not be less than 6.5 standard units (S.U.) nor greater than 9.0 SU at any time. In order to continue the pH limit range of 6.5 -9.0 S.U. in future permits, within 3 years of the effective date of the permit, PEDAs must conduct a study to demonstrate that the pH in the receiving water does not exceed the range of 6.5 – 8.3 S.U. At least 6 months prior to beginning the study, PEDAs will contact the MassDEP for guidance on completing the study. The pH study will be submitted to massdep.npdes@mass.gov.</p> <p>6. The minimum level (ML) for analysis for total PCBs will be no greater than the published ML of 0.095 µg/L using EPA test method 608.3, unless the permittee requests, and EPA approves, an alternate test method in accordance with Part 136.5. Provide the results of PCB analyses as the sum of Aroclors.</p> <p>7. If EPA publishes a multi-lab validated method for PCBs in wastewater in 40 CFR Part 136 within the permit term that either replaces EPA test method 608.3 or achieves a ML less than the ML of EPA test method 608.3, the Permittee will use that test method for reporting of PCBs in the effluent. This requirement takes effect beginning six months after EPA notifies the Permittee that the updated PCB analytical method is available. Provide the results of PCB analyses as the sum of analyzed compounds.</p> <p>8. Conduct acute toxicity tests twice per year (WET). Test the daphnid, <i>Ceriodaphnia dubia</i>, and the fathead minnow, <i>Pimephales promelas</i>. Perform the tests in accordance with test procedures and protocols specified in the Toxicity Test Procedure and Protocol document included in the NPDES permit (See Appendix A). After five years following the effective date of the permit and 10 valid test results (i.e., in the event the permit is administratively continued), the sampling frequency for WET testing will be reduced to once every two years. The once every two years sample will be collected in April. Sampling will be performed concurrently with the monthly monitoring event.</p> <table border="1"> <thead> <tr> <th>Test Dates</th> <th>Submit Results By:</th> <th>Test Species</th> <th>LC50</th> </tr> </thead> <tbody> <tr> <td>April October</td> <td>The 30th day of the month following the test</td> <td><i>Ceriodaphnia dubia</i> (daphnid) <i>Pimephales promelas</i> (fathead minnow)</td> <td>Report</td> </tr> </tbody> </table> <p>9. The LC50 is the concentration of effluent which causes mortality to 50% of the test organisms.</p> <p>10. If toxicity test(s) using receiving water as diluent show the receiving water to be toxic or unreliable, either follow procedures outlined in the Toxicity Test Procedure and Protocol document, Section IV., DILUTION WATER included in the NPDES permit (See Appendix A) to obtain an approval for use of an alternate dilution water.</p>						Test Dates	Submit Results By:	Test Species	LC50	April October	The 30 th day of the month following the test	<i>Ceriodaphnia dubia</i> (daphnid) <i>Pimephales promelas</i> (fathead minnow)	Report
Test Dates	Submit Results By:	Test Species	LC50										
April October	The 30 th day of the month following the test	<i>Ceriodaphnia dubia</i> (daphnid) <i>Pimephales promelas</i> (fathead minnow)	Report										



The monitoring program specified above will provide continuous information on compliance, reliability, and effectiveness of the BMPs and installed pollution control equipment. PEDDA will monitor and report sampling results to the EPA and the MassDEP in the manner, and within the time, specified in the NPDES permit as outlined in Section 7.0.

6.3 EVALUATION OF PREVIOUS MONITORING DATA

A summary of previous monitoring data collected between 2006 and 2014 is provided in Appendix J. The data are summarized below.

Effluent Characteristics were reported for monthly sampling events between January 2010 and December 2013, including daily and monthly flow, minimum and maximum pH and total suspended solids, oil and grease sample concentrations and calculated lb/day loading, and PCB sample concentrations and lb/day loading, as follows:

Parameter	Minimum	Maximum	Average
Average Monthly Flow (MGD)	0.01	0.71	0.2
Maximum Daily Flow (MGD)	0.16	7.33	1.8
Minimum pH (S.U.)	6.5	8.37	7.8
Maximum pH (S.U.)	7.36	9.14	8.37
Maximum Daily Total Suspended Solids (lbs/day)	0.2	1,850	228
Average Monthly Total Suspended Solids (lbs/day)	0.2	1,850	228
Oil and Grease (lbs/day)	0	36.14	3.6
Oil and Grease (mg/l)	0	40	3.3
PCB (lbs/day)	0.00000196	0.0161	0.00139
Total PCBs (µg/L)	0.0247	0.885	0.165 (median)

Silver Lake Pre-Remediation Data were reported for monthly sampling events between December 2006 and July 2012 for samples collected at the outlet of Silver Lake to the Housatonic River and tested for PCBs. The minimum concentration of total PCBs was reported as 0.044 µg/L, maximum was reported as 0.930 µg/L, and average was reported as 0.264 µg/L.

Silver Lake Post-Remediation Data were reported for monthly sampling events between October 2013 and July 2014 for samples collected at the outlet of Silver Lake to the Housatonic River and tested for PCBs. The minimum concentration of total PCBs was reported as non-detected below 0.010 or 0.022 µg/L, maximum was reported as 0.097 µg/L, and median was reported as 0.044 µg/L. The concentrations are approximately one order of magnitude lower than those determined pre-remediation.

7.0 RECORDKEEPING AND REPORTING REQUIREMENTS

7.1 REQUIRED MONITORING RECORDS



For all stormwater monitoring and visual assessments, the following information will be recorded and maintained:

- Location (i.e., Outfall 001), date, and time of sampling
- Time the discharge started
- Personnel collecting samples
- Dates and times analyses were initiated
- Personnel or laboratory that performed the analyses
- Analytical techniques or methods used, and
- Results of analyses

This information will be documented on the Stormwater Discharge Monitoring Data forms in Appendix I and the analytical report provided by the MA-certified laboratory performing sample analyses.

Reporting for WET testing will additionally include the following:

- Description of tests including age of test organisms and origin
- Dates and results of standard toxicant test
- Light and temperature regime
- Reference toxicant data
- Other information on test conditions if they are different than specified test procedures
- Chemical/physical data generated (including minimum detection levels and minimum quantification levels)
- Raw data and bench sheets, and
- Other observations or test conditions that affected the results of testing

7.2 RECORDS RETENTION

All records and information from stormwater discharge monitoring activities, including calibration and maintenance records and original strip chart recordings for continuous monitoring instrumentation, copies of reports required by the Permit, and records of data used to complete the application for the Permit, will be retained for a minimum of three years from the date of sampling, measurement, report, or permit application.

7.3 OTHER RECORDS

In addition to the monitoring records and reports, the following additional records will be maintained with the SWPPP:

- Records of revisions and updates to the SWPPP will be documented in the “Record of Summary Changes” found on page v of the Plan.
- Records of Routine Inspections, including corrective actions taken, will be maintained in Appendices I and J for three years from the date of the inspection.
- Documentation of any testing or evaluation for the presence of non-stormwater discharges will be maintained in Appendix B for three years from the date of the evaluation.
- Documentation and correspondence pertaining to any exceedances of an applicable discharge limitation will be maintained in Appendix K for a minimum of three years following the expiration date of the Permit.
- Records of any reportable spills that occurred three years prior to the date of certification of the Plan will be maintained on a log included in Appendix E.

7.4 REPORTING REQUIREMENTS



The results of monthly discharge monitoring data (except for the quarterly visual assessment) conducted pursuant to the Permit will be submitted to the EPA and MassDEP on the Stormwater Discharge Monitoring Report (DMR) form in Appendix I no later than the 15th day of the month following the completed reporting period.

For a period of one month from the effective date of the permit, PEDDA may submit its monthly monitoring data in DMRs to EPA and MassDEP either in hard copy form, or in DMRs electronically submitted using NetDMR. NetDMR is accessed from: <https://npdes-ereporting.epa.gov/net-netdmr>

If applicable, a hardcopy of the DMR will be submitted to EPA at the following address:

U.S. Environmental Protection Agency
Enforcement and Compliance Assurance Division
Water Compliance Section
5 Post Office Square, Suite 100 (04-SMR)
Boston, MA 02109-3912

If applicable, a hardcopy of the DMR will be submitted to MassDEP at the following address:

Massachusetts Department of Environmental Protection
Bureau of Water Resources
Division of Watershed Management
8 New Bond Street
Worcester, Massachusetts 01606

Beginning no later than one month after the effective date of the Permit, monthly DMRs will be reported using NetDMR. After PEDDA begins submitting DMR reports to EPA electronically using NetDMR, PEDDA will electronically submit all reports to EPA as NetDMR attachments rather than as hard copies. Because the due dates for reports described in the Permit may not coincide with the due date for submitting DMRs (which is no later than the 15th day of the month), a report submitted electronically as a NetDMR attachment will be considered timely if it is electronically submitted to EPA using NetDMR with the next DMR due following the particular report due date specified in this Permit.

PEDDA will send hard copies of all WET test reports to the MassDEP, Division of Watershed Management, at the following address:

Massachusetts Department of Environmental Protection
Bureau of Water Resources
Division of Watershed Management
8 New Bond Street
Worcester, Massachusetts 01606

The following requests, reports, and information described in the Permit will be submitted to EPA and to MassDEP as described below:

- Transfer of Permit notice
- Request for changes in sampling location
- Request for reduction in testing frequency
- Request for reduction in WET testing requirements
- Report on unacceptable dilution water or requests for alternative dilution water for WET testing
- SWPPP Certification, and
- Reports specified in Part I.C.3. of the Permit (Appendix A), Compliance Schedule



The above reports, information, and requests will be submitted to EPA Water Department electronically at RINPDESReporting@epa.gov or by hard copy mail to the following address:

U.S. Environmental Protection Agency
Water Division
NPDES Applications Coordinator
5 Post Office Square, Suite 100 (06-03)
Boston, MA 02109-3912

The above reports, information and requests will also be submitted electronically to MassDEP SWD Permitting program at MassDEP.NPDES@mass.gov.

Verbal reports and notifications will be made to EPA at (617) 918-1510 and to MassDEP at (888) 304-1133.

The following will apply for submittal of reports in hard copy:

Written notifications and reports concerning planned Site modifications and anticipated noncompliance with the Permit will be signed and dated originals, submitted in hard copy, with a cover letter describing the submission. The information will be submitted to EPA at the following address:

U.S. Environmental Protection Agency
Enforcement and Compliance Assurance Division
Water Compliance Section
5 Post Office Square, Suite 100 (04-SMR)
Boston, MA 02109-3912

Beginning December 21, 2025, these notifications will be completed electronically using EPA's NPDES Electronic Reporting Tool ("NeT"), or another approved EPA system, which will be accessible through EPA's Central Data Exchange at <https://cdx.epa.gov/>.

7.5 REPORTS OF ADDITIONAL MONITORING

If PEDDA monitors any pollutant more frequently than required by the Permit using test procedures approved under 40 C.F.R. § 136, or another method required for an industry-specific waste stream under 40 CFR Subchapters N or O, the results of such monitoring will be included in the calculation and reporting of data submitted in the DMR form specified by the Directors of MassDEP and EPA.

7.6 PLANNED SITE MODIFICATIONS

PEDA will give advance notice to MassDEP and EPA of any planned changes at WSBP or activities at WSBP that may result in noncompliance with Permit requirements.

PEDA will give notice to MassDEP and EPA as soon as possible of any planned physical alterations or additions to the Site. Notice is only required when:

- The alteration or addition may meet one of the criteria for determining whether a facility is a new source defined at 40 CFR §122.29(b).
- The alteration or addition could significantly change the nature, or increase the quantity, of pollutants discharged.

7.7 REPORTING PERMIT VIOLATIONS



Non-compliance which may endanger health or the environment will be reported orally within 24 hours of discovery to MassDEP and EPA, followed by a written report within 5 days of discovery. Written reports will include the following:

- A description of the noncompliance and its cause.
- The period of noncompliance, including dates and times.
- If the noncompliance has not been corrected, the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Directors of MassDEP and EPA may waive the written report on a case-by-case basis for reports if the oral report is received within 24 hours.

7.8 SPILL REPORTING REQUIREMENTS

Any person observing evidence of a spill or leak of oil or hazardous material (or the potential for a spill or leak) at WSBP must immediately report it to Site personnel who will notify members of the Spill Prevention Team.

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 MassDEP requirements at 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302, occurs during a 24-hour period, an authorized PEDA representative will notify the National Response Center (NRC) at (800) 424-8802 in accordance with the requirements of 40 CFR Part 110, 40 CFR Part 117, and 40 CFR Part 302 as soon as knowledge of the discharge is known. MassDEP will also be notified.

The following information concerning the spill will be reported:

- Date, time, location, and cause of the incident.
- Quantity and type of substance, material or waste spilled.
- Name and address of the owner and the person making the report.
- Measures that were undertaken to mitigate and cleanup the spill.

8.0 CORRECTIVE ACTIONS

8.1 CONDITIONS REQUIRING SWPPP REVIEW AND REVISION TO ENSURE EFFLUENT LIMITS ARE MET

When any of the conditions described below are observed/detected during an inspection, monitoring or other means, or EPA informs PEDA that any of the following conditions have occurred, PEDA will review and revise, as appropriate, the SWPPP (e.g., sections related to sources of pollution, spill and leak procedures, non-stormwater discharges, the selection, design, installation and implementation of stormwater control measures) so that Permit effluent limits are met and pollutant discharges are minimized.

- An unauthorized release or discharge (e.g., spill, leak, or discharge of non-stormwater not authorized by the Permit) occurs to the Stormwater Management System.
- A discharge violates a numeric effluent limit listed in the table in Section 6.2.2 of this Plan.
- Stormwater control measures are not sufficient to meet numeric or non-numeric effluent limits/requirements in Sections I.A.1 (i.e., reporting of concentrations of various constituents, not meeting effluent limitations) and I.C.2.a (required BMPs) in the Permit, or Silver Lake water not meeting applicable water quality standards.



- A required control measure was not installed, was installed incorrectly, is not in accordance with the MSGP (Parts 2 or 8) or is not being properly operated or maintained.
- Whenever a visual assessment shows evidence of stormwater pollution (e.g., unusual color, odor, floating solids, settled solids, suspended solids, foam).

8.2 CONDITIONS REQUIRING SWPPP REVIEW TO DETERMINE IF MODIFICATIONS ARE NECESSARY

If construction or a change in operation or maintenance at WSBP occurs that significantly changes the nature of pollutants discharged via stormwater, or significantly increases the quantity of pollutants discharged, PEDAs will review the SWPPP (e.g., sections related to sources of pollution, spill and leak procedures, non-stormwater discharges, selection, design, installation, and implementation of stormwater control measures) to determine if modifications are necessary to meet the effluent limits in the Permit.

8.3 DEADLINES FOR CORRECTIVE ACTIONS

On the day a condition is found requiring corrective action, PEDAs will take all reasonable steps to minimize or prevent discharge of pollutants until a permanent solution can be implemented, including cleaning up any contaminated surfaces so that the material will not discharge in subsequent storm events. If a problem is found too late in a workday to initiate corrective action, PEDAs will perform the corrective action the following workday morning.

If additional actions are necessary beyond the initial corrective actions, these actions will be completed before the next storm event if possible, and within 14 calendar days from the time of discovery. If it is infeasible to complete the corrective action within 14 calendar days, PEDAs will document why it was infeasible to complete the action within the allotted timeframe. In addition, a schedule for completing the work will be prepared that ensures that the action will be completed as soon as practicable but no longer than 45 days after discovery.

If completion of corrective action will exceed the 45-day timeframe, PEDAs will complete the corrective action within a minimum period of time and will notify the EPA Regional Office of its intention to exceed the 45 day time period, providing the rationale for an extension, and a proposed completion date. The information will be included in corrective action documentation. Where the corrective action results in changes to any of the controls or procedures documented in the SWPPP, the SWPPP will be modified within 14 calendar days of completing the corrective action.

9.0 UPDATING THE PLAN

PEDAs will amend and update the SWPPP within 14 days of any changes at WSB and as described in other sections the Plan. Changes that may affect the SWPPP include the following:

- Conditions or circumstances described in other sections of the Plan.
- A change in construction, operation, or maintenance, which may have a significant effect on the potential for the discharge of pollutants.
- A release of a reportable quantity of pollutants as described in 40 CFR § 302.
- A determination by PEDAs or EPA that the SWPPP appears to be ineffective in achieving the general objective of controlling pollutants in stormwater discharges associated.
- Revisions or improvements are made to the stormwater management program based on new information and experiences with wet weather events.



Any amended, modified, or new versions of the SWPPP will be re-certified and signed by PEDAs authorized representative. In addition, at least annually, PEDA will certify in an updated SWPPP that required inspections, control measures and training activities completed during the previous year were conducted, results recorded and maintained.

10.0 DOCUMENTATION PERTAINING TO OTHER FEDERAL LAWS

10.1 ENDANGERED SPECIES ACT-LISTED THREATENED AND ENDANGERED SPECIES AND CRITICAL HABITAT PROTECTION

As described in the Permit, EPA consulted with the National Marine Fisheries Services (NMFS) since issuance of the Permit might adversely impact an essential fish habitat (EFH) quality and/or quantity. Since Silver Lake and downstream Housatonic River are not covered by the EFH designation, the EPA determined that a formal EFH consultation with NMFS is not required.

Also as described in the Permit, in accordance with requirements of the Endangered Species Act (ESA), EPA reviewed the federal endangered and threatened species of fish and wildlife to determine if any listed species might potentially be impacted by issuance of the Permit. The review revealed that the only federally protected species that merited further evaluation was the bog turtle (*Clemmys muhlenbergii*).

PEDA discharges stormwater, and groundwater infiltrates, into Silver Lake, which discharges into the East Branch of the Housatonic River. The bog turtle has been identified in Egremont and Sheffield, Massachusetts, which are approximately 25 miles away from Pittsfield. The bog turtle is found in wet meadows and would not likely be found in an open lake, therefore if the species was to be found closer to the Pittsfield area, it is unlikely that it would come into contact with the PEDA discharge. Based on the permit conditions and the absence of listed species in the vicinity of the discharge, EPA determined that issuance of the Permit will have no effect on this species.

10.2 NATIONAL HISTORIC PRESERVATION ACT

PEDA is not aware of the presence of historic properties within WSBP. The presence of historic properties within municipal and privately-owned land in the northern portion of the drainage area is unknown.

If determinations of eligibility under the National Historic Preservation Act (NHPA) or through the Massachusetts State Historic Preservation Office (SHPO) under Massachusetts Regulation 950 CMR 71 have not been previously completed for the drainage area, such determinations may be required. However, since current activities at the Site pertinent to requirements under NHPA and the Massachusetts- equivalent program are not underway, it is unlikely that NHPA or SHPO determinations are required, especially since EPA apparently did not make such a determination when evaluating Permit issuance. Activities that could be subject to NHPA and equivalent Massachusetts regulations include new construction and expansion projects, alteration or renovation projects on existing historic buildings or structures, interior renovations on buildings over 50 years old, or ground disturbances on historic properties.

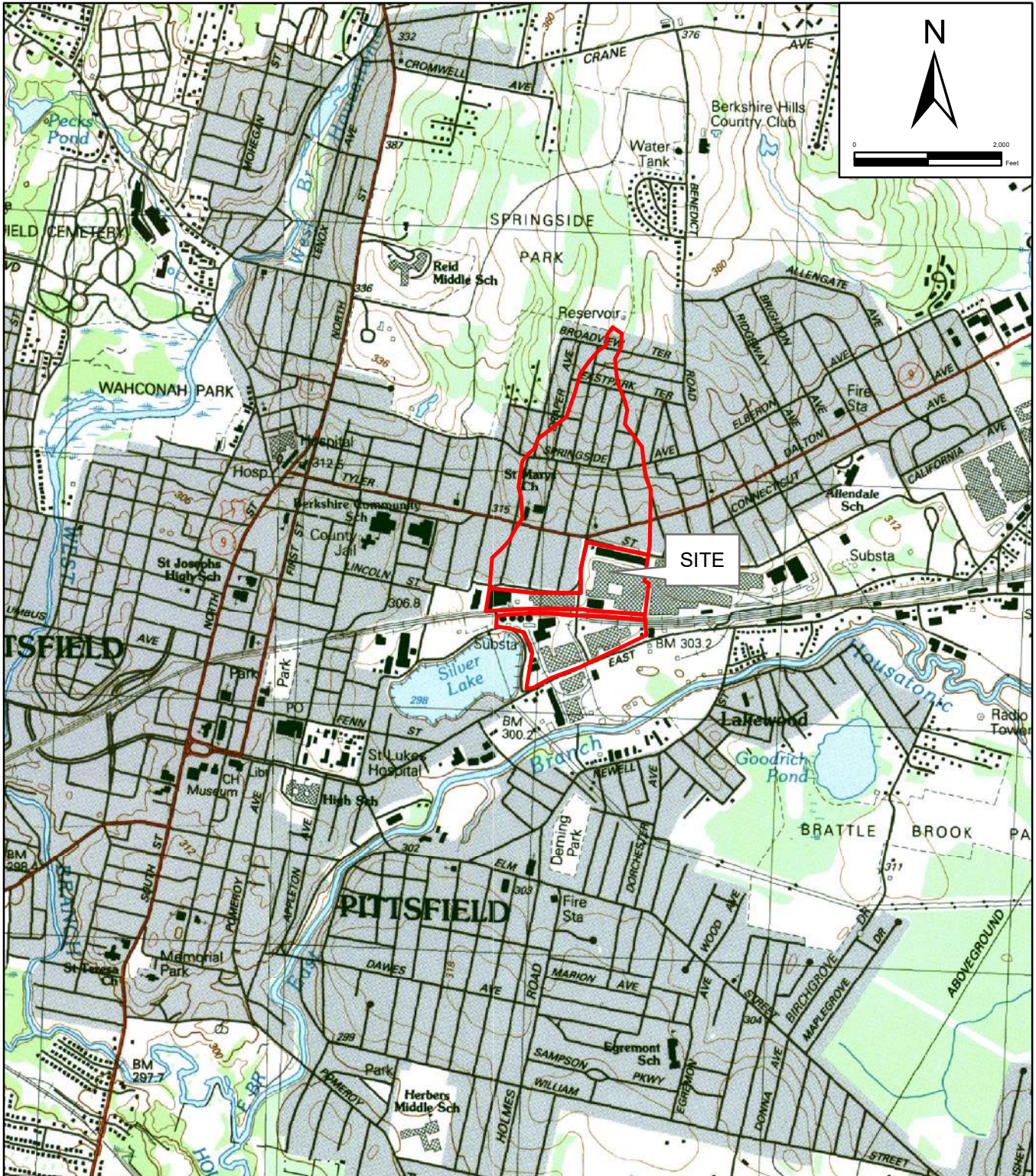
Furthermore, as stated in MSGP Appendix F – Procedures Relating to Historic Properties Preservation, EPA concluded that issuance of stormwater permits for the majority of sites have no potential to have effects on historic properties. Since the purpose of the MSGP is to control pollutants that may be transported in stormwater runoff from industrial facilities, EPA does not anticipate effects on historic properties from the pollutants in stormwater and allowable non-stormwater discharges from these facilities. To the extent that the MSGP authorizes discharges confined to existing stormwater channels



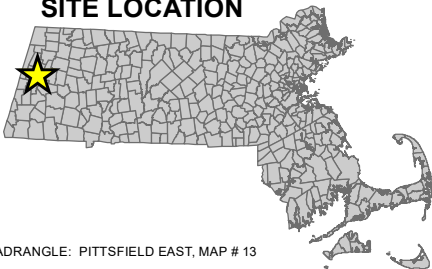
or natural drainage areas, the permitting action does not have the potential to cause effects on historic properties.

ZUVİC

Figures



SITE LOCATION

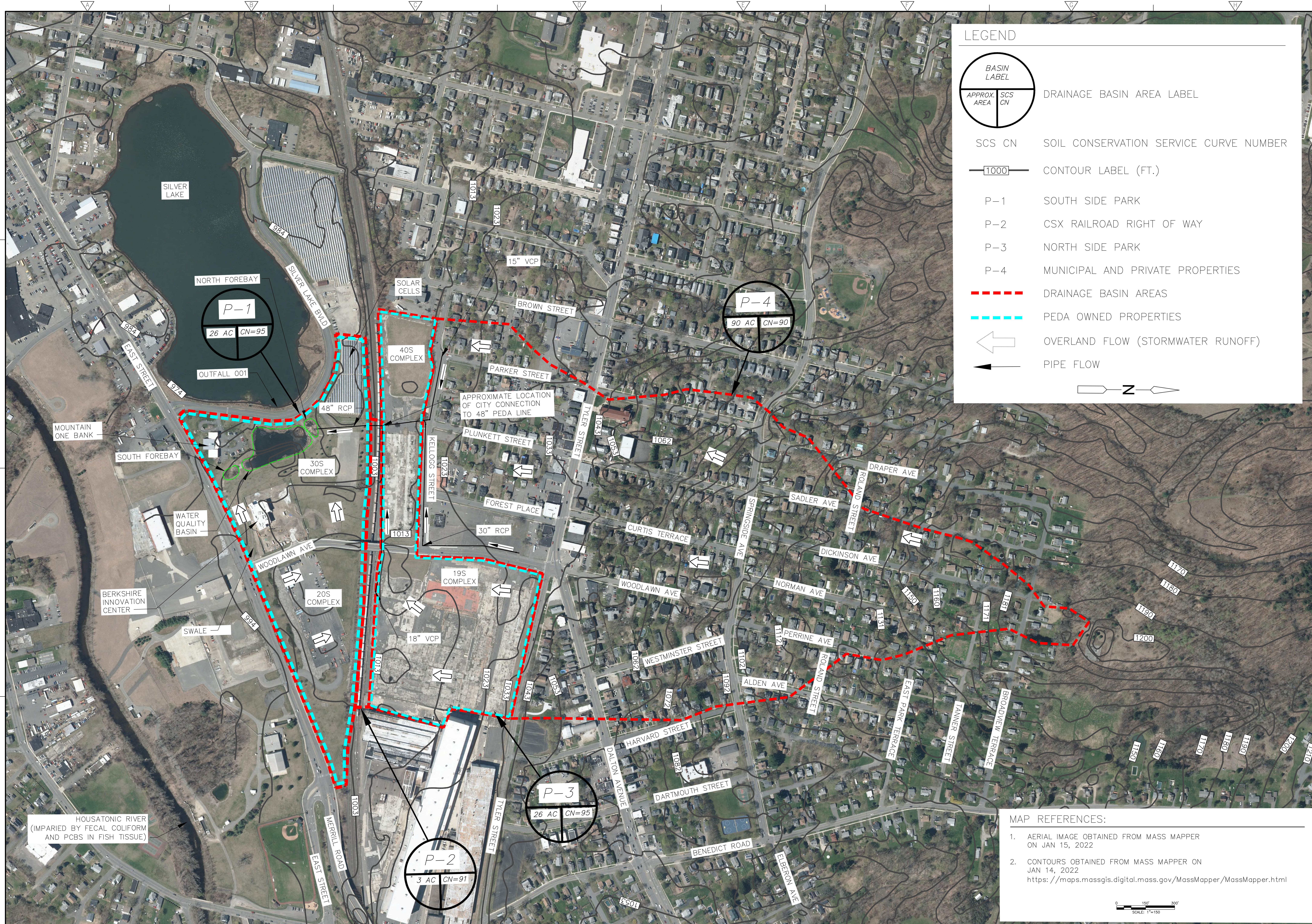


USGS QUADRANGLE: PITTSFIELD EAST, MAP # 13
 SOURCE: 1988 USGS TOPOGRAPHIC MAP, BERKSHIRE COUNTY
 Mass Mapper: Interactive GIS Mapping Services - MassGIS

SITE LOCATION MAP

**WILLIAM STANLEY BUSINESS PARK OF THE BERKSHIRES
 PITTSFIELD, MASSACHUSETTS**

PREPARED FOR:	PITTSFIELD ECONOMIC DEVELOPMENT AUTHORITY 81 KELLOGG STREET PITTSFIELD, MA 01201		
PREPARED BY:	ZUVIC INC. 40 COLD SPRING ROAD, ROCKY HILL, CT OFFICE (860) 436-4901 FAX (860) 436-4953		
SCALE: 1 in = 2,000 ft	DATE: JANUARY 19, 2022	PROJECT NO.: 21088	FIGURE 1



FILE PATH: H:\Projects\21088 - Berkshire PEDA\AutoCAD\21088 - Topo & Drainage.dwg PLOT DATE: 1/27/2022 PLOT TIME: 4:13:36 PM

REV. NO.	DATE	DRWN	CHKD	REMARKS

PROJECT NO.: 21088
 DESIGNED BY: FW
 DRAWN BY: ARM
 SHEET CHK'D BY: FW
 CROSS CHK'D BY: VLM
 APPROVED BY: VLM
 DATE: 01-27-2022

PREPARED FOR:

PEDA
 PITTSFIELD ECONOMIC DEVELOPMENT AUTHORITY

81 KELLOGG STREET
 PITTSFIELD, MASSACHUSETTS, 01201

PREPARED BY:

zuvic
 INFRASTRUCTURE SOLUTIONS

40 Cold Spring Road, Suite 1, Rocky Hill, CT 06067
 (860) 436-4901 | WWW.ZUVIC.COM

**WILLIAM STANLEY BUSINESS PARK
 OF THE BERKSHIRES
 STORMWATER POLLUTION PREVENTION PLAN**

PITTSFIELD, MASSACHUSETTS 01201

**TOPOGRAPHIC AND
 DRAINAGE BASINS MAP**



Appendix A

Final Permit Authorization (MA0040231), Portions of 2021 Multi-Sector General Permit,
2017 NPDES Remediation General Permit (MAG910000)

**AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Federal Clean Water Act as amended (33 U.S.C. §1251 et seq.; the “CWA”), and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53),

**Pittsfield Economic Development Authority
81 Kellogg Street
Pittsfield, Massachusetts 01201**

is authorized to discharge from the facility located at

**William Stanley Business Park of the Berkshires
Generally bounded by East Street,
Silver Lake Boulevard, Kellogg Street, and Tyler Street
Pittsfield, Massachusetts 01201**

to receiving waters named the

**Silver Lake
(Housatonic River Watershed)**

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein This permit shall become effective on November 1, 2021.


This permit expires at midnight on October 31, 2026.

This permit supersedes Permit MA0003891 that became on effective February 7, 1992.

This permit consists of 17 pages in Part I including effluent limitations and monitoring requirements; Attachment A (Freshwater Acute Toxicity Test Procedure and Protocol (February 2011), Attachment B: Site Map, and 25 pages in Part II including Standard Conditions.

Signed this day of

KENNETH MORAFF Digitally signed by
KENNETH MORAFF
Date: 2021.08.18
11:35:54 -04'00'



Ken Moraff, Director
Water Division
Environmental Protection Agency
Boston, MA

Lealdon Langley, Director
Division of Watershed Management
Department of Environmental Protection
Commonwealth of Massachusetts
Boston, MA

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated stormwater and groundwater through outfall serial number 001 to Silver Lake. The discharge will be limited and monitored by the permittee as specified below.

Effluent Characteristic	Unit	Discharge Limitation		Monitoring Requirement ^{1,2}	
		Average Monthly	Maximum Daily	Measurement Frequency ³	Sample Type
Flow ⁴	MGD	Report	Report	When Discharging	Meter or Estimate
Oil and Grease	mg/L	Report	15	1/Month	Grab
TSS	mg/L	30	100	1/Month	Grab
pH ⁵	6.5 – 9.0 S.U.			1/Month	Grab
Escherichia coli	cfu/100 ml	Report	Report	1/Year	Grab
Total Nitrogen	mg/L lb/day		Report	2/Year	Grab
PCBs, Total ^{6,7}	µg/L	Report	Report	1/Month	Grab
Whole Effluent Toxicity ^{8,9,10}	Acute LC50 – Report			2/Year	Grab
Total Hardness	mg/L	Report	Report		
Total Suspended Solids	mg/L				
Specific Conductance	µmhos/cm				
Ammonia Nitrogen	mg/L				
Total Residual Chlorine	µg/L				
Total Cadmium	µg/L				
Total Chromium	µg/L				
Total Lead	µg/L				
Total Copper	µg/L				
Total Zinc	µg/L				
Total Nickel	µg/L				
Total Aluminum	µg/L				

Footnotes:

1. Samples shall be collected from the box culvert that receives final effluent from the water quality basin, unless otherwise specified. Samples shall be representative of the discharge.
2. In accordance with 40 C.F.R. § 122.44(i)(1)(iv), the Permittee shall monitor according to sufficiently sensitive test procedures (i.e., methods) approved under 40 C.F.R. Part 136 or required under 40 C.F.R. chapter I, subchapter N or O, for the analysis of pollutants or pollutant parameters (except WET). A method is “sufficiently sensitive” when: 1) The method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter; or 2) The method has the lowest ML of the analytical methods approved under 40 C.F.R. Part 136 or required under 40 C.F.R. chapter I, subchapter N or O for the measured pollutant or pollutant parameter. The term “minimum level” refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL), whichever is higher. Minimum levels may be obtained in several ways: They may be published in a method; they may be based on the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a laboratory, by a factor.
3. Measurement frequency of 1/month is defined as the sampling of one discharge event in each calendar month. Measurement frequency of 1/year is defined as the sampling of one discharge event during one calendar year. If no sample is collected during the measurement frequencies defined above, the Permittee must report an appropriate No Data Indicator Code.
4. Report the monthly average and maximum daily flows. The monthly average flow is defined as the average flow per day of discharge. Also, report the flow from Outfall 001 and precipitation measured at the Pittsfield Airport or another nearby site for each day of the month as an attachment to the DMR. In the event of inclement weather, the permittee is allowed to estimate flow.
5. The pH of the effluent shall not be less than 6.5 standard units (S.U.) nor greater than 9.0 SU at any time. Please see Section I.C.4 of this permit for information on requirements for maintaining this pH limit range in future permits.
6. The minimum level (ML) for analysis for total PCBs shall be no greater than the published ML of 0.095 µg/L using EPA test method 608.3, unless the permittee requests, and EPA approves an alternate test method in accordance with Part 136.5. Provide the results of PCB analyses as the sum of Aroclors.
7. If EPA publishes a multi-lab validated method for PCBs in wastewater in 40 CFR Part 136 within the permit term that either replaces EPA test method 608.3 or achieves a ML less than the ML of EPA test method 608.3, the Permittee shall use that test method for reporting of PCBs in the effluent. This requirement takes effect beginning six months

after EPA notifies the Permittee that the updated PCB analytical method is available. Provide the results of PCB analyses as the sum of analyzed compounds.

8. Conduct acute toxicity tests twice per year. Test the daphnid, *Ceriodaphnia dubia*, and the fathead minnow, *Pimephales promelas*. Perform the tests in accordance with test procedures and protocols specified in **Attachment B** of this permit. After five years following the effective date of the permit and 10 valid test results (i.e., in the event the permit is administratively continued), the sampling frequency for WET testing shall be reduced to once every two years. The once every two years sample shall be collected in April. Sampling shall be performed concurrently with the monthly monitoring event.

Test Dates	Submit Results By:	Test Species	LC50
April October	the 30 th day of the month following the test	<i>Ceriodaphnia dubia</i> (daphnid) <i>Pimephales promelas</i> (fathead minnow)	Report

9. The LC50 is the concentration of effluent which causes mortality to 50% of the test organisms.
10. If toxicity test(s) using receiving water as diluent show the receiving water to be toxic or unreliable, either follow procedures outlined in Attachments B (Toxicity Test Procedure and Protocol) Section IV., DILUTION WATER in order to obtain an individual approval for use of an alternate dilution water.

Part I.A., continued

2. The discharge shall not cause a violation of the water quality standards of the receiving water.
3. The discharge will not cause objectionable discoloration of the receiving waters.
4. The effluent will contain neither a visible oil sheen, foam, nor floating solids at any time.
5. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify EPA as soon as they know or have reason to believe (40 CFR § 122.42):
 - a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
 - (1) 100 micrograms per liter (µg/L);
 - (2) 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (mg/L) for antimony;

- (3) Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR § 122.21(g)(7); or
 - (4) Any other notification level established by EPA in accordance with 40 CFR § 122.44(f) and State regulations.
 - b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
 - (1) 500 µg/L;
 - (2) One mg/L for antimony;
 - (3) 10 times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR § 122.21(g)(7); or
 - (4) Any other notification level established by EPA in accordance with 40 CFR § 122.44(f) and State regulations.
 - c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.
6. Properly operate and maintain all treatment systems.
7. Toxics Control
 - a. The permittee will not discharge any pollutant or combination of pollutants in toxic amounts.
 - b. Any toxic components of the effluent will not result in any demonstrable harm to aquatic life or violate any state or federal water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.
8. Numerical Effluent Limitations for Toxicants

EPA or the MassDEP may use the results of the toxicity tests and chemical analysis conducted pursuant to this permit, as well as national water quality criteria developed pursuant to Section 304(a) (1) of the Clean Water Act (CWA), state water quality criteria, and any other appropriate information or data, to develop numerical effluent limitations for any pollutants, including but not limited to those pollutants listed in Appendix D of 40 CFR § 122.

B. REOPENER CLAUSE

The results of sampling required by the permit shall constitute new information within the meaning of 40 CFR § 122.62(a)(2) and shall be assessed by EPA during the term of the permit. If the results demonstrate that the permit as written is insufficiently stringent to comply with applicable water quality standards for toxics, including PCBs, EPA may re-open and modify the permit's terms to impose additional BMPs and/or numeric effluent limitations sufficient to ensure compliance with such water quality standards.

C. SPECIAL CONDITIONS**1. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)**

The Permittee shall develop a Stormwater Pollution Prevention Plan (SWPPP) to document the selection, design, installation, and maintenance of control measures, including BMPs, selected to meet the effluent limitations required in this permit, and Parts 2.1.2 and 9.10.7.2 of EPA's 2021 Multi-Sector General Permit (MSGP) for Stormwater Discharges Associated with Industrial Activities.¹ The SWPPP shall be a written document that is consistent with the terms of this permit designed to reduce, or prevent, the discharge of pollutants from the site to the receiving water. Additionally, the SWPPP shall serve as a tool to document the permittee's compliance with the terms of this permit.

- a. The Permittee shall develop and certify the SWPPP in accordance with the signatory requirements in 40 CFR §122.22 and Part II. D.2 of this permit within 90 days after the effective date of this permit. The Permittee shall submit a copy of this initial certification to EPA and MassDEP within 120 days of the effective date of this permit in accordance with Part I.D.2 and 3 of this permit.
- b. The SWPPP shall be consistent with the general provisions for SWPPPs included in Part 6 of EPA's 2021 MSGP. The SWPPP shall be prepared in accordance with good engineering practices and manufacturer's specifications. Specifically, the SWPPP shall contain the elements listed in Parts 6.2.1 through 6.2.5 of EPA's 2021 MSGP and as briefly listed below:
 - (1) A stormwater pollution prevention team;
 - (2) A site description;
 - (3) A drainage area site map;
 - (4) A summary of known and potential pollutant sources;
 - (5) A description of all stormwater control measures (e.g., BMPs); and
 - (6) Schedules and procedures for implementation of stormwater control measures, including the BMPs described below, inspections, assessments, and monitoring.
- c. The Permittee shall amend and update the SWPPP within 14 days of any changes at the site affecting the SWPPP. Changes that may affect the SWPPP include, but are not limited to: a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the waters of the United States; a release of a reportable quantity of pollutants as described in 40 CFR § 302; a determination by the Permittee or EPA that the SWPPP appears to be ineffective in achieving the general objective of controlling pollutants in stormwater discharges associated; and revisions or improvements are made to the stormwater management program based on new information and experiences with wet weather events. Any amended, modified, or new versions of the SWPPP shall be re-certified

¹ The 2021 MSGP is currently available at: <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities-epas-2021-msgp>.

and signed by the Permittee. Such re-certifications also shall be signed in accordance with the requirements identified in Part II.D.2 of this Permit.

- d. The Permittee shall certify at least annually that the previous year's required inspections, control measures, and training activities were conducted, results were recorded, and records were maintained, as described. If the facility is not in compliance with any limitations of this permit, the annual certification shall state the non-compliance and the remedies that are or will be undertaken. Such annual certifications also shall be signed in accordance with the requirements identified in Part II.D.2 of this permit. The Permittee shall keep a copy of the current SWPPP and all SWPPP certifications (i.e., the initial certification, re-certifications, and annual certifications) signed during the effective period of this permit at the site, and shall make these available for inspection by EPA. In addition, document in the SWPPP any violation of numerical or non-numerical stormwater effluent limits with a date and description of the corrective actions taken.
- e. The Permittee shall keep all documentation of SWPPP activities shall be kept at the site for at least three years and provided to EPA upon request. EPA may extend this period and, if extended, will provide confirmation in writing to the Permittee.

2. BEST MANAGEMENT PRACTICES (BMPs)

- a. The Permittee shall select, design, implement, and maintain control measures (e.g., BMPs) to minimize the discharge of pollutants in stormwater to waters of the United States. At a minimum, the Permittee must implement both structural controls (e.g., conveyance infrastructure and containment areas) and non-structural controls (e.g., operational procedures and operator training) consistent with those described in Part 2.1.2 of EPA's 2021 MSGP. The control measures must ensure the following effluent limitations are met:
 - (1) Minimize exposure of former industrial activity areas to stormwater discharges.
 - (2) Design good housekeeping measures to maintain areas that are potential sources of pollutants.
 - (3) Implement preventative maintenance programs to avoid leaks, spills, and other releases of pollutants in wastewater discharged to receiving waters.
 - (4) Implement spill prevention and response procedures to ensure effective response to spills and leaks if or when they occur.
 - (5) Design erosion and sediment controls to stabilize exposed areas and contain runoff using structural and/or non-structural control measures to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants.
 - (6) Utilize stormwater management practices to divert, reuse, contain, or otherwise reduce stormwater runoff to minimize pollutants in the discharge.
 - (7) Enclose or cover storage piles for salt or materials containing chlorides that are used for snow and ice control.
 - (8) Conduct employee training to ensure personnel understand the requirements of this permit;

- (9) Evaluate for the presence of non-stormwater discharges. Any non-stormwater discharges not explicitly authorized in the permit or covered by another NPDES permit must be eliminated; and
 - (10) Minimize dust generation and vehicle tracking of industrial materials.
- b. The control measures must include, at a minimum, the following components:
- (1) The Permittee shall implement the control measure requirements in Part 2.1 and 2.1.1 of EPA's 2021 Multi-Sector General Permit (MSGP)² to identify pollutant sources, and select, design, install and maintain the pollution control technology necessary to meet the effluent limitations in the permit that ensure dilution is not used as a form of treatment;³
 - (2) The Permittee shall implement the inspection requirements in Part 3.1 and 3.2 of the 2021 MSGP to conduct routine site inspections;
 - (3) The Permittee shall implement the corrective action requirements in Part 5.1.1 through 5.1.4 of the 2021 MSGP if at any time the Permittee becomes aware, or EPA determines, that the discharge exceeds any effluent limitation, or does not meet applicable water quality standards;⁴
 - (4) The Permittee shall implement the quality assurance/quality control BMP in Part 2.5.2 of EPA's 2017 RGP⁵ to document monitoring requirements, sample collection procedures, sample analysis procedures,⁶ a schedule for the review of sample results, and data validation and reporting processes.
 - (5) The Permittee shall select, design, implement, and maintain control measures for stormwater associated with site activities to minimize the discharge of nutrients, including nitrogen and phosphorus, from the site to the receiving water. The following BMPs shall be implemented, at a minimum.
 - i. Procedures to minimize the use of pesticides, herbicides, and fertilizers. Procedures must include requirements for use of slow release fertilizers on permittee-owned property, in addition to reducing and managing fertilizer use (i.e., the proper use, storage, and disposal of pesticides, herbicides, and using only in accordance manufacturer's instructions).
 - ii. Practices for lawn maintenance and landscaping activities that are protective of water quality. Practices include reduced mowing frequencies, proper management and disposal of grass clippings and leaf litter, and use of alternative landscaping materials (e.g., drought resistant planting). Blowing organic waste materials onto adjacent impervious surfaces is prohibited.

2 The 2021 MSGP is currently available at: <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities-epas-2021-msgp>.

3 See Part 2.5.2.d of the 2017 RGP for example technologies and additional resources.

4 Where the MSGP refers to limitations, conditions or benchmarks, including the SWPPP, for the purposes of this permit, these shall refer to the limitations and conditions in this permit.

5 The 2017 RGP is currently available at: <https://www.epa.gov/npdes-permits/remediation-general-permit-rgp-massachusetts-new-hampshire>.

6 Sample analysis must comply with the *National Pollutant Discharge Elimination System (NPDES): Use of Sufficiently Sensitive Test Methods for Permit Applications and Reporting Rule*. See Fed. Reg. 49,001 (Aug. 19, 2014).

- iii. Routine street sweeping program. The minimum frequency is monthly.
- c. The Permittee shall select, design, implement, and maintain control measures to eliminate discharges of PCBs from the site to the receiving water through an iterative approach over the permit term, which must include the following components, at a minimum.
 - (1) Source Identification

The Permittee shall identify the components of the conveyance system and trace the components that contribute PCBs to the discharge. Specifically, the conveyance system must be accurately mapped and the sources of PCBs, or other site-related contaminants of concern, contributing to the Outfall 001 must be specifically identified. The following potential sources must be evaluated, at a minimum:

- i. Residual presence of PCBs in soils, and other surfaces exposed to stormwater;
- ii. Residual presence of PCBs in pipes, catch basins, and other conveyance system structures;
- iii. Infiltration of groundwater into the conveyance system on PEDDA property;
- iv. Infiltration of groundwater directly into the water quality basin;
- v. PCBs in sediment in the forebays and water quality basin being re-suspended;
- vi. Onflow from offsite that contributes to the Outfall 001 conveyance system; and
- vii. Inflow from illicit connections to PEDDA's conveyance system.

EPA notes that the permittee may rely on existing site characterization to the extent that it meets the listed source identification requirements. The permittee shall use the results of this evaluation to prioritize the implementation of BMPs as appropriate.

(2) Optimization

The Permittee shall evaluate, select, design, implement, and maintain abatement and removal BMPs for existing infrastructure as follows:

- i. Remove accumulated solids from the existing conveyance system, including, but not limited to: trunkline inlets/manholes, catch basins, sediment traps, sumps, which must include all of the 20s and 30s complex areas and Woodlawn Avenue adjacent to the 20s and 30s complex where owned or controlled by the Permittee, at a minimum;
- ii. Remove accumulated solids from the existing forebays, and water quality basin;
- iii. Complete line cleaning operations (e.g., jetting, vacuuming, removal, loading, storage, and/or transport), which must include the trunk line,

- manholes DMH 396 and DMH 27, and any remaining storm drain lines in the 40s to DMH 27;
- iv. Conduct street sweeping at paved areas, which must include all of the 20s and 30s complex and Woodlawn Avenue adjacent to the 20s and 30s complex, at a minimum;
 - v. Dispose of removed storm drain solids and liquids in accordance with applicable laws and regulations and document in the SWPPP;
 - vi. Enhance storage capacity of the water quality basin through upstream engineering controls, including, but not limited to: remotely controlled discharge valves, in-pipe and/or aboveground water storage, reuse systems, and passive remediation measures (e.g., infiltration through engineered media, targeted infiltration);
 - vii. Enhance storage capacity of the existing water quality basin;
 - viii. Inspect and evaluate the effectiveness of the optimization measures taken through routine site inspections, referenced in Part I.C.2.c.(2), and evaluation, described below, in Part I.C.2.c.(5).

These BMPs must be consistent with those found in Part 9.10.7.2 of EPA's 2021 MSGP,⁷ which specifies Additional Effluent Limits for Discharges to Certain Impaired Waters and Sediment Cleanup Sites applicable to discharges to either directly or indirectly through a stormwater drainage system.

(3) Minimization

The Permittee shall evaluate, select, design, implement, and maintain control measures (i.e., BMPs) that eliminate or otherwise minimize (i.e., non-detect) the discharge of PCBs to the receiving water. Minimization must address source control and elimination of PCBs from contaminated soils, sediments, stormwater and groundwater entering the conveyance system via inflow and infiltration, as follows:

- i. Disconnect the existing conveyance system identified as contributing PCBs to the discharge, including, at a minimum the current infrastructure from the Teens area through the 40s complex at the location where it combines with the City system that proceeds onto the Water Quality Basin and Outfall 001(e.g. to BMH 396), and must include: lines/trunkline, manholes, catch basins, sediment traps, and sumps; or
- ii. Reline, recondition, replace or abandon in place existing conveyance system identified as contributing PCBs to the discharge, including, at a minimum the current infrastructure from the Teens area through the 40s complex at the location where it combines with the City system that proceeds onto the Water Quality Basin and Outfall 001(e.g. to BMH 396);

⁷ EPA-821-R-04-014 is currently available at: <https://www.epa.gov/eg/effluent-guidelines-plan-support-documents>; The 2021 MSGP is currently available at: <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities-epas-2021-msgp>. The 2017 RGP is currently available at: <https://www.epa.gov/npdes-permits/remediation-general-permit-rgp-massachusetts-new-hampshire>.

- iii. If other modification is determined equivalent to elimination of PCB contributions (e.g., installation of active or passive treatment, diverting significant sources to sanitary sewer), notification must be provided to EPA for concurrence.
- iv. Any future stormwater management infrastructure shall consist solely of new or slip lined stormwater piping.

(4) Design Standards

The Permittee shall evaluate, select, design, implement, and maintain design standards (e.g., procedures and protocols) that eliminate the discharge of PCBs during and following site redevelopment as follows:

- i. Establish a frequency for routine cleaning for the conveyance system, including, but not limited to: trunkline inlets/manholes, catch basins, sediment traps, sumps, no less than annually, and that will ensure that no component shall be more than 50 percent full;
- ii. Implement a frequency for routine cleaning for the forebays, and water quality basin, no less than annually, and that ensures proper operation and that will ensure the average thickness of debris does not exceed 12 inches in the forebays and the calculated pool volume in the water quality basin is not reduced by more than 25% due to sediment accumulation;
- iii. Establish a frequency for routine street sweeping, no less than twice per year
- iv. If any redevelopment results in new pavement, new catch basins, or new sediment treatment systems in the teens or 40s complexes, implement the optimization measures specified above for the existing infrastructure.
- v. Utilize green infrastructure measures where practicable, such as streetscapes, vacant lots, riparian corridors, green roof systems, cisterns, bioswales and biobasins, and porous paving;
- vi. Reuse runoff, where practicable, for irrigation, toilet flushing, and other site needs that may exist, including beneficial reuse of stored volumes; and
- vii. Minimize the hydraulic gradient that draws contaminated groundwater into the system, where practicable.

(5) Evaluation

The Permittee shall implement ongoing evaluation. Specifically, the Permittee must maintain an accurate site plan depicting all drainage features and connections to the conveyance system. In addition, routine sampling for PCBs must be conducted no less than annually to assess areas to prioritize BMPs and to evaluate the effectiveness of BMPs, design standards, and procedures and protocols. Finally, the permittee must conduct representative sampling during both wet weather and dry weather conditions to determine:

- i. Influent concentration of total PCBs and estimated total annual load⁸ into the north forebay.
- ii. Influent concentration of total PCBs and estimated total annual load into the south forebay.
- iii. Effluent concentration of total PCBs and estimated total annual load discharging from outfall 001.
- iv. Concentration of total PCBs and estimated total annual load in Silver Lake at the outlet.

The Permittee may rely on existing routine characterization conducted by both PEDA and GE, to the extent that it meets the listed evaluation requirements. For the purposes of this permit, samples analyzed using test methods that are not currently listed in 40 CFR Part 136 (i.e., EPA Method 8082A), are acceptable for characterization. This exception does not apply to the test method specified for compliance monitoring in this permit.

The Permittee shall document these components in the SWPPP. The Permittee shall submit a report annually to EPA certifying that discharges comply with these permit requirements and summarizing activities conducted to achieve such compliance.

3. COMPLIANCE SCHEDULE

- a. The following must be completed within 120 days of the permit effective date and no later than January 15th of each calendar year thereafter:
 - (1) Submit written notification to EPA of completion and certification of the SWPPP, attaching a complete copy of the SWPPP and certification.
 - (2) Submit a written proposal for the BMPs required in Part I.C.2.b. to EPA that includes the following:
 - i. Description of proposed BMPs for the calendar year, including technical specifications;
 - ii. Description of the measurable goal(s) for each BMP, including a schedule, with milestones as prioritized based on the source identification required in Part I.C.2.C.(1), for its implementation that do not exceed the expiration date of this permit, have a quantity or quality associated with its endpoint, and a measure of assessment associated with it;
 - iii. Description of how these BMPs will achieve compliance with numeric limits in Part I.A.1, and non-numeric limits in Part I.C.2.a.; and
 - iv. The person(s) or entity responsible for each BMP.
 - (3) The Permittee shall submit the notifications and proposals specified in this part to EPA in writing in accordance with Part I.D.2. EPA will notify the Permittee in writing of any deficiency within 30 days following receipt of notification to EPA.

⁸ Loading calculation: Total PCBs (lb/day) = [(average monthly PCBs (mg/L) * total monthly effluent flow (MG)) / # of days in the month] * 8.345.

- b. The following must be included in the SWPPP within one year of the permit effective date and updated annually thereafter:
- (1) Documentation of the selection, design, implementation, and maintenance of control measures required in Part I.C.2.b.1. that includes a description of the BMPs implemented to date.
 - (2) Written procedures for the inspection requirements in Part I.C.2.b.2., including schedules and forms necessary to conduct routine site inspections; Documentation of compliance with inspection requirements must be included.
 - (3) Written procedures for the corrective action requirements in Part I.C.2.b.3.; Documentation of any corrective actions undertaken during the previous calendar year must be included.
 - (4) Written quality assurance/quality control requirements in Part I.C.2.b.4.; Documentation of monitoring requirements, sample collection procedures, sample analysis procedures, a schedule for the review of sample results, and data validation and reporting processes must be included.
 - (5) Documentation of the selection, design, implementation, and maintenance of BMPs required in Part I.C.2.b.5. to minimize the discharge of nutrients, including nitrogen and phosphorus.
 - (6) Documentation of the selection, design, implementation, and maintenance of BMPs to eliminate discharges of PCBs. The documentation must include, at a minimum:
 - i. Documentation of the source identification requirements in Part I.C.2.c.1. completed to date.
 - ii. Documentation of the optimization requirements in Part I.C.2.c.2. completed to date.
 - iii. Documentation of the minimization requirements in Part I.C.2.c.3. completed to date and must include the components listed in Part I.C.3.a.(2), above.
 - iv. Documentation of the design standards requirements (e.g., procedures and protocols) in Part I.C.2.c.4. completed to date.
 - v. Documentation of the evaluation requirements in Part I.C.2.c.5. completed to date.
- c. The following information must be included in the SWPPP within five (5) years of the permit effective date and updated annually thereafter, in the event this permit is administratively continued following expiration:
- i. Description of the BMPs completed (or updated, in the event of expiration).
 - ii. Confirmation that these BMPs have achieved (or continue to achieve, in the event of expiration) compliance with numeric limits in Part I.A.1, and non-numeric limits in Part I.C.2.a.
 - iii. Description of requested SWPPP, BMP and/or Compliance Schedule considerations for permit reissuance.

4. pH STUDY

In order to continue the pH limit range of 6.5 - 9.0 S.U. in future permits, within three (3) years of the effective date of the permit, the Permittee must conduct a study to demonstrate that the pH in the receiving water does not exceed the range of 6.5 - 8.3 S.U. At least six (6) months prior to beginning the study, the Permittee shall contact MassDEP (massdep.npdes@mass.gov) for guidance on how to complete the study. The completed pH study shall be submitted to massdep.npdes@mass.gov.

D. MONITORING AND REPORTING

The monitoring program in the permit specifies sampling and analysis, which will provide continuous information on compliance and the reliability and effectiveness of the installed pollution abatement equipment and measures. The approved analytical procedures found in 40 CFR Part 136 are required unless other procedures are explicitly required in the permit. The Permittee is obligated to monitor and report sampling results to EPA and the MassDEP within the time specified within the permit. Unless otherwise specified in this permit, the permittee shall submit reports, requests, and information and provide notices in the manner described in this section.

1. Submittal of DMRs and the Use of NetDMR

- a. **Beginning on the issuance date of the permit** the permittee must submit its monthly monitoring data in discharge monitoring reports (DMRs) to EPA and MassDEP no later than the 15th day of the month following the completed reporting period.
- b. **For a period of one month from the effective date of the permit**, the permittee may submit its monthly monitoring data in DMRs to EPA and MassDEP either in hard copy form, as described in Part I.E.5, or in DMRs electronically submitted using NetDMR. NetDMR is a web-based tool that allows permittees to electronically submit DMRs and other required reports via a secure internet connection. NetDMR is accessed from:
- c. **Beginning no later than one month after the effective date of the permit**, the Permittee shall begin reporting monthly monitoring data using NetDMR. The permittee must continue to use the NetDMR after the permittee begins to do so. When a permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs to EPA or MassDEP, unless otherwise specified in this permit.
- d. After the Permittee begins submitting DMR reports to EPA electronically using NetDMR, the Permittee shall electronically submit all reports to EPA as NetDMR attachments rather than as hard copies, unless otherwise specified in this permit. Permittees shall continue to send hard copies of WET test reports to MassDEP as specified in Part I.D.3. Because the due dates for reports described in this permit may not coincide with the due date for submitting DMRs (which is no later than the 15th

day of the month), a report submitted electronically as a NetDMR attachment shall be considered timely if it is electronically submitted to EPA using NetDMR with the next DMR due following the particular report due date specified in this permit.

2. Submittal of Requests and Reports to EPA and MassDEP Surface Water Discharge Permitting Program
 - a. The following requests, reports, and information described in this permit shall be submitted to the EPA Water Division (WD) NPDES Applications Coordinator in the EPA and to the MassDEP Surface Water Discharge (SWD) Permitting Program
 - (1) Transfer of Permit notice
 - (2) Request for changes in sampling location
 - (3) Request for reduction in testing frequency
 - (4) Request for reduction in WET testing requirements
 - (5) Report on unacceptable dilution water / request for alternative dilution water for WET testing
 - (6) SWPPP Certification
 - (7) Reports specified in Part I.C.3., Compliance Schedule
 - b. These reports, information, and requests shall be submitted to EPA WD electronically at R1NPDESReporting@epa.gov or by hard copy mail to the following address:

**U.S. Environmental Protection Agency
Water Division
NPDES Applications Coordinator
5 Post Office Square - Suite 100 (06-03)
Boston, MA 02109-3912**

And also submitted electronically to MassDEP SWD Permitting program at MassDEP.NPDES@mass.gov.

- c. Submittal of Reports in Hard Copy Form
 - (1) The following notifications and reports shall be signed and dated originals, submitted in hard copy, with a cover letter describing the submission:
 - i. Written notifications required under Part II, Standard Conditions. Beginning December 21, 2025, such notifications must be done electronically using EPA's NPDES Electronic Reporting Tool ("NeT"), or another approved EPA system, which will be accessible through EPA's Central Data Exchange at <https://cdx.epa.gov/>.
 - (2) This information shall be submitted to EPA ECAD at the following address:

**U.S. Environmental Protection Agency
Enforcement and Compliance Assurance Division**

**Water Compliance Section
5 Post Office Square, Suite 100 (04-SMR)
Boston, MA 02109-3912**

3. State Reporting

Duplicate signed copies of all WET test reports shall be submitted to the Massachusetts Department of Environmental Protection, Division of Watershed Management, at the following address:

**Massachusetts Department of Environmental Protection
Bureau of Water Resources
Division of Watershed Management
8 New Bond Street
Worcester, Massachusetts 01606**

4. Verbal Reports and Verbal Notifications

- a. Any verbal reports or verbal notifications, if required in Parts I and/or II of this Permit, shall be made to both EPA and to the State. This includes verbal reports and notifications which require reporting within 24 hours (e.g., Part II.B.4.c. (2), Part II.B.5.c. (3), and Part II.D.1.e.).
- b. Verbal reports and verbal notifications shall be made to EPA's Enforcement and Compliance Assurance Division at:

617-918-1510

- c. Verbal reports and verbal notifications shall be made to the State's Emergency Response at:

888-304-1133

E. STATE PERMIT CONDITIONS

1. This authorization to discharge includes two separate and independent permit authorizations. The two permit authorizations are (i) a federal National Pollutant Discharge Elimination System permit issued by the U.S. Environmental Protection Agency (EPA) pursuant to the Federal Clean Water Act, 33 U.S.C. §§1251 et seq.; and (ii) an identical state surface water discharge permit issued by the Commissioner of the Massachusetts Department of Environmental Protection (MassDEP) pursuant to the Massachusetts Clean Waters Act, M.G.L. c. 21, §§26-53, and 314 C.M.R. 3.00. All of the requirements contained in this authorization, as well as the standard conditions contained in 314 CMR 3.19, are hereby incorporated by reference into this state surface water discharge permit.

2. Each agency shall have the independent right to enforce the terms and conditions of this permit. Any modification, suspension or revocation of this permit shall be effective only with respect to the agency taking such action, and shall not affect the validity or status of this permit as issued by the other agency, unless and until each agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this permit is declared invalid, illegal or otherwise issued in violation of state law such permit shall remain in full force and effect under federal law as a NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this permit is declared invalid, illegal or otherwise issued in violation of federal law, this permit shall remain in full force and effect under state law as a permit issued by the Commonwealth of Massachusetts.

USEPA REGION 1 FRESHWATER ACUTE TOXICITY TEST PROCEDURE AND PROTOCOL

I. GENERAL REQUIREMENTS

The permittee shall conduct acceptable acute toxicity tests in accordance with the appropriate test protocols described below:

- **Daphnid (Ceriodaphnia dubia) definitive 48 hour test.**
- **Fathead Minnow (Pimephales promelas) definitive 48 hour test.**

Acute toxicity test data shall be reported as outlined in Section VIII.

II. METHODS

The permittee shall use 40 CFR Part 136 methods. Methods and guidance may be found at:

http://water.epa.gov/scitech/methods/cwa/wet/disk2_index.cfm

The permittee shall also meet the sampling, analysis and reporting requirements included in this protocol. This protocol defines more specific requirements while still being consistent with the Part 136 methods. If, due to modifications of Part 136, there are conflicting requirements between the Part 136 method and this protocol, the permittee shall comply with the requirements of the Part 136 method.

III. SAMPLE COLLECTION

A discharge sample shall be collected. Aliquots shall be split from the sample, containerized and preserved (as per 40 CFR Part 136) for chemical and physical analyses required. The remaining sample shall be measured for total residual chlorine and dechlorinated (if detected) in the laboratory using sodium thiosulfate for subsequent toxicity testing. (Note that EPA approved test methods require that samples collected for metals analyses be preserved immediately after collection.) Grab samples must be used for pH, temperature, and total residual chlorine (as per 40 CFR Part 122.21).

Standard Methods for the Examination of Water and Wastewater describes dechlorination of samples (APHA, 1992). Dechlorination can be achieved using a ratio of 6.7 mg/L anhydrous sodium thiosulfate to reduce 1.0 mg/L chlorine. If dechlorination is necessary, a thiosulfate control (maximum amount of thiosulfate in lab control or receiving water) must also be run in the WET test.

All samples held overnight shall be refrigerated at 1- 6°C.

IV. DILUTION WATER

A grab sample of dilution water used for acute toxicity testing shall be collected from the receiving water at a point immediately upstream of the permitted discharge's zone of influence at a reasonably accessible location. Avoid collection near areas of obvious road or agricultural runoff, storm sewers or other point source discharges and areas where stagnant conditions exist. In the case where an alternate dilution water has been agreed upon an additional receiving water control (0% effluent) must also be tested.

If the receiving water diluent is found to be, or suspected to be toxic or unreliable, an alternate standard dilution water of known quality with a hardness, pH, conductivity, alkalinity, organic carbon, and total suspended solids similar to that of the receiving water may be substituted **AFTER RECEIVING WRITTEN APPROVAL FROM THE PERMIT ISSUING AGENCY(S)**. Written requests for use of an alternate dilution water should be mailed with supporting documentation to the following address:

Director
Office of Ecosystem Protection (CAA)
U.S. Environmental Protection Agency-New England
5 Post Office Sq., Suite 100 (OEP06-5)
Boston, MA 02109-3912

and

Manager
Water Technical Unit (SEW)
U.S. Environmental Protection Agency
5 Post Office Sq., Suite 100 (OES04-4)
Boston, MA 02109-3912

Note: USEPA Region 1 retains the right to modify any part of the alternate dilution water policy stated in this protocol at any time. Any changes to this policy will be documented in the annual DMR posting.

See the most current annual DMR instructions which can be found on the EPA Region 1 website at <http://www.epa.gov/region1/enforcement/water/dmr.html> for further important details on alternate dilution water substitution requests.

It may prove beneficial to have the proposed dilution water source screened for suitability prior to toxicity testing. EPA strongly urges that screening be done prior to set up of a full definitive toxicity test any time there is question about the dilution water's ability to support acceptable performance as outlined in the 'test acceptability' section of the protocol.

V. TEST CONDITIONS

The following tables summarize the accepted daphnid and fathead minnow toxicity test conditions and test acceptability criteria:

EPA NEW ENGLAND EFFLUENT TOXICITY TEST CONDITIONS FOR THE DAPHNID, CERIODAPHNIA DUBIA 48 HOUR ACUTE TESTS¹

1.	Test type	Static, non-renewal
2.	Temperature (°C)	20 ± 1°C or 25 ± 1°C
3.	Light quality	Ambient laboratory illumination
4.	Photoperiod	16 hour light, 8 hour dark
5.	Test chamber size	Minimum 30 ml
6.	Test solution volume	Minimum 15 ml
7.	Age of test organisms	1-24 hours (neonates)
8.	No. of daphnids per test chamber	5
9.	No. of replicate test chambers per treatment	4
10.	Total no. daphnids per test concentration	20
11.	Feeding regime	As per manual, lightly feed YCT and <u>Selenastrum</u> to newly released organisms while holding prior to initiating test
12.	Aeration	None
13.	Dilution water ²	Receiving water, other surface water, synthetic water adjusted to the hardness and alkalinity of the receiving water (prepared using either Millipore Milli-Q ^R or equivalent deionized water and reagent grade chemicals according to EPA acute toxicity test manual) or deionized water combined with mineral water to appropriate hardness.
14.	Dilution series	≥ 0.5, must bracket the permitted RWC
15.	Number of dilutions	5 plus receiving water and laboratory water control and thiosulfate control, as necessary. An additional dilution at the permitted effluent concentration (% effluent) is required if it is not included in the dilution

series.

- | | |
|----------------------------|---|
| 16. Effect measured | Mortality-no movement of body or appendages on gentle prodding |
| 17. Test acceptability | 90% or greater survival of test organisms in dilution water control solution |
| 18. Sampling requirements | For on-site tests, samples must be used within 24 hours of the time that they are removed from the sampling device. For off-site tests, samples must first be used within 36 hours of collection. |
| 19. Sample volume required | Minimum 1 liter |

Footnotes:

1. Adapted from EPA-821-R-02-012.
2. Standard prepared dilution water must have hardness requirements to generally reflect the characteristics of the receiving water.

**EPA NEW ENGLAND TEST CONDITIONS FOR THE FATHEAD MINNOW
(PIMEPHALES PROMELAS) 48 HOUR ACUTE TEST¹**

1. Test Type	Static, non-renewal
2. Temperature (°C)	20 ± 1 ° C or 25 ± 1°C
3. Light quality	Ambient laboratory illumination
4. Photoperiod	16 hr light, 8 hr dark
5. Size of test vessels	250 mL minimum
6. Volume of test solution	Minimum 200 mL/replicate
7. Age of fish	1-14 days old and age within 24 hrs of each other
8. No. of fish per chamber	10
9. No. of replicate test vessels per treatment	4
10. Total no. organisms per concentration	40
11. Feeding regime	As per manual, lightly feed test age larvae using concentrated brine shrimp nauplii while holding prior to initiating test
12. Aeration	None, unless dissolved oxygen (D.O.) concentration falls below 4.0 mg/L, at which time gentle single bubble aeration should be started at a rate of less than 100 bubbles/min. (Routine D.O. check is recommended.)
13. dilution water ²	Receiving water, other surface water, synthetic water adjusted to the hardness and alkalinity of the receiving water (prepared using either Millipore Milli-Q ^R or equivalent deionized and reagent grade chemicals according to EPA acute toxicity test manual) or deionized water combined with mineral water to appropriate hardness.
14. Dilution series	≥ 0.5, must bracket the permitted RWC

- | | |
|----------------------------|--|
| 15. Number of dilutions | 5 plus receiving water and laboratory water control and thiosulfate control, as necessary. An additional dilution at the permitted effluent concentration (% effluent) is required if it is not included in the dilution series. |
| 16. Effect measured | Mortality-no movement on gentle prodding |
| 17. Test acceptability | 90% or greater survival of test organisms in dilution water control solution |
| 18. Sampling requirements | For on-site tests, samples must be used within 24 hours of the time that they are removed from the sampling device. For off-site tests, samples are used within 36 hours of collection. |
| 19. Sample volume required | Minimum 2 liters |

Footnotes:

1. Adapted from EPA-821-R-02-012
2. Standard dilution water must have hardness requirements to generally reflect characteristics of the receiving water.

VI. CHEMICAL ANALYSIS

At the beginning of a static acute toxicity test, pH, conductivity, total residual chlorine, oxygen, hardness, alkalinity and temperature must be measured in the highest effluent concentration and the dilution water. Dissolved oxygen, pH and temperature are also measured at 24 and 48 hour intervals in all dilutions. The following chemical analyses shall be performed on the 100 percent effluent sample and the upstream water sample for each sampling event.

<u>Parameter</u>	Effluent	Receiving Water	ML (mg/l)
Hardness ¹	x	x	0.5
Total Residual Chlorine (TRC) ^{2, 3}	x		0.02
Alkalinity	x	x	2.0
pH	x	x	--
Specific Conductance	x	x	--
Total Solids	x		--
Total Dissolved Solids	x		--
Ammonia	x	x	0.1
Total Organic Carbon	x	x	0.5
Total Metals			
Cd	x	x	0.0005
Pb	x	x	0.0005
Cu	x	x	0.003
Zn	x	x	0.005
Ni	x	x	0.005
Al	x	x	0.02
Other as permit requires			

Notes:

- Hardness may be determined by:
 - APHA Standard Methods for the Examination of Water and Wastewater , 21st Edition
 - Method 2340B (hardness by calculation)
 - Method 2340C (titration)
- Total Residual Chlorine may be performed using any of the following methods provided the required minimum limit (ML) is met.
 - APHA Standard Methods for the Examination of Water and Wastewater , 21st Edition
 - Method 4500-CL E Low Level Amperometric Titration
 - Method 4500-CL G DPD Colorimetric Method
- Required to be performed on the sample used for WET testing prior to its use for toxicity testing.

VII. TOXICITY TEST DATA ANALYSIS

LC50 Median Lethal Concentration (Determined at 48 Hours)

Methods of Estimation:

- Probit Method
- Spearman-Karber
- Trimmed Spearman-Karber
- Graphical

See the flow chart in Figure 6 on p. 73 of EPA-821-R-02-012 for appropriate method to use on a given data set.

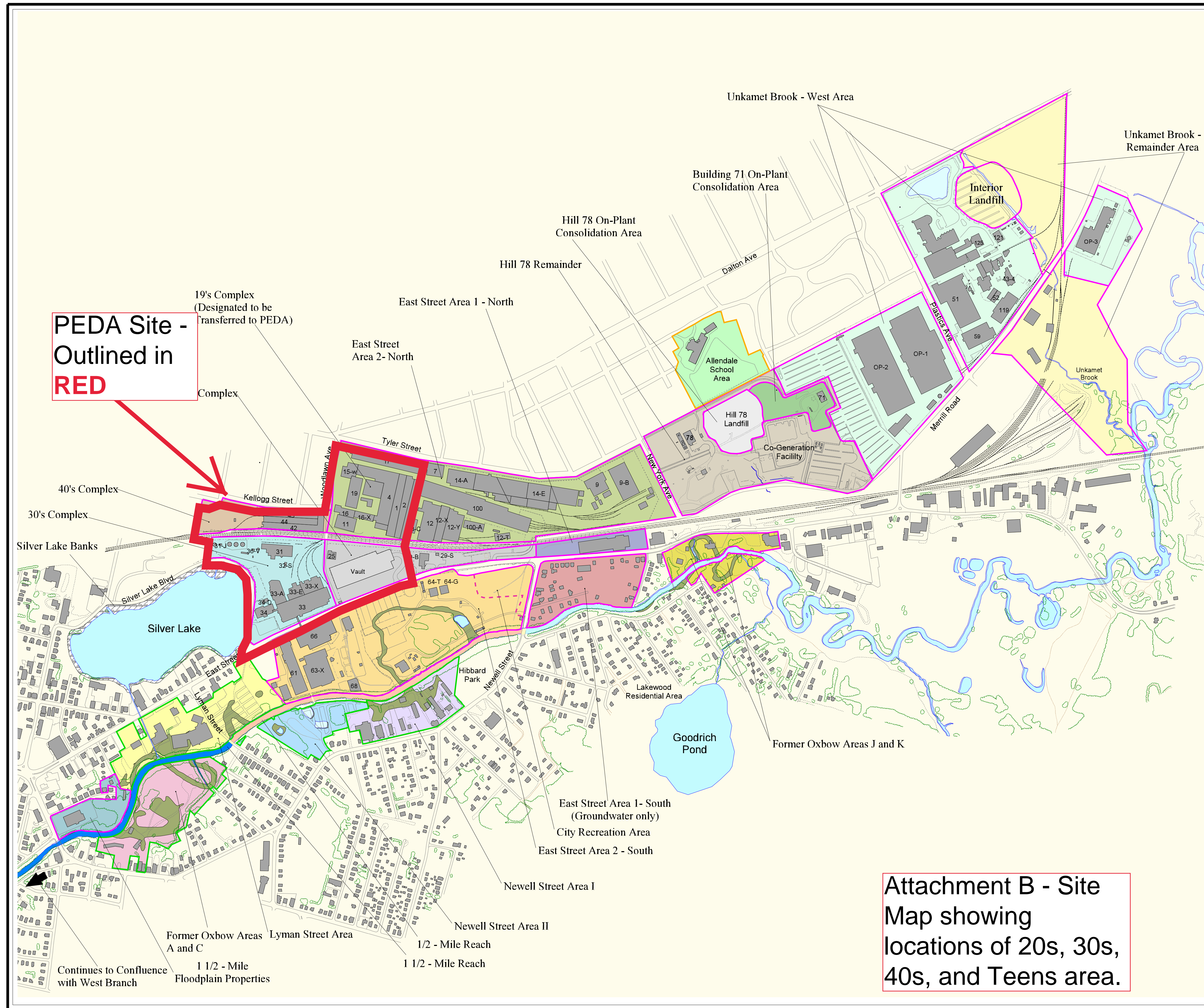
No Observed Acute Effect Level (NOAEL)

See the flow chart in Figure 13 on p. 87 of EPA-821-R-02-012.

VIII. TOXICITY TEST REPORTING

A report of the results will include the following:

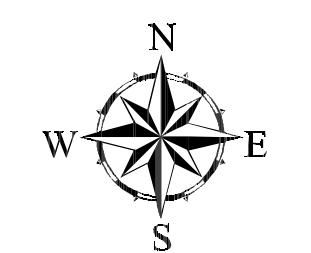
- Description of sample collection procedures, site description
- Names of individuals collecting and transporting samples, times and dates of sample collection and analysis on chain-of-custody
- General description of tests: age of test organisms, origin, dates and results of standard toxicant tests; light and temperature regime; other information on test conditions if different than procedures recommended. Reference toxicant test data should be included.
- All chemical/physical data generated. (Include minimum detection levels and minimum quantification levels.)
- Raw data and bench sheets.
- Provide a description of dechlorination procedures (as applicable).
- Any other observations or test conditions affecting test outcome.



**PEDASite -
Outlined in
RED**

- LEGEND:**
- GE Plant Area:**
- 20's complex
 - 30's complex
 - 40's complex
 - East Street Area 1- North
 - East Street Area 1-South (Groundwater only)
 - East Street Area 2 - North
 - East Street Area 2 - South
 - Building 71 On-Plant Consolidation Area
 - Hill 78 On-Plant Consolidation Area
 - Hill 78 Remainder
 - Unkamet Brook - West Area
 - Unkamet Brook - Remainder Area
- Silver Lake:**
- Silver Lake Sediment
 - Silver Lake Banks
- Former Oxbow Areas:**
- Former Oxbow Areas A&C
 - Former Oxbow Areas J&K
 - Lyman Street Area
 - Newell Street Area I
 - Newell Street Area II
 - Allendale School Area
- Reaches and Floodplains:**
- 1/2 - Mile Reach
 - 1 1/2 - Mile Reach
 - 1 1/2 - Mile Floodplain Properties
 - Former Oxbows

Notes:
 1. Base features provided by General Electric Contractors.
 2. Not all physical features are shown.
 3. Site Boundaries are approximate.
 4. Map produced by Weston Solutions, Inc.



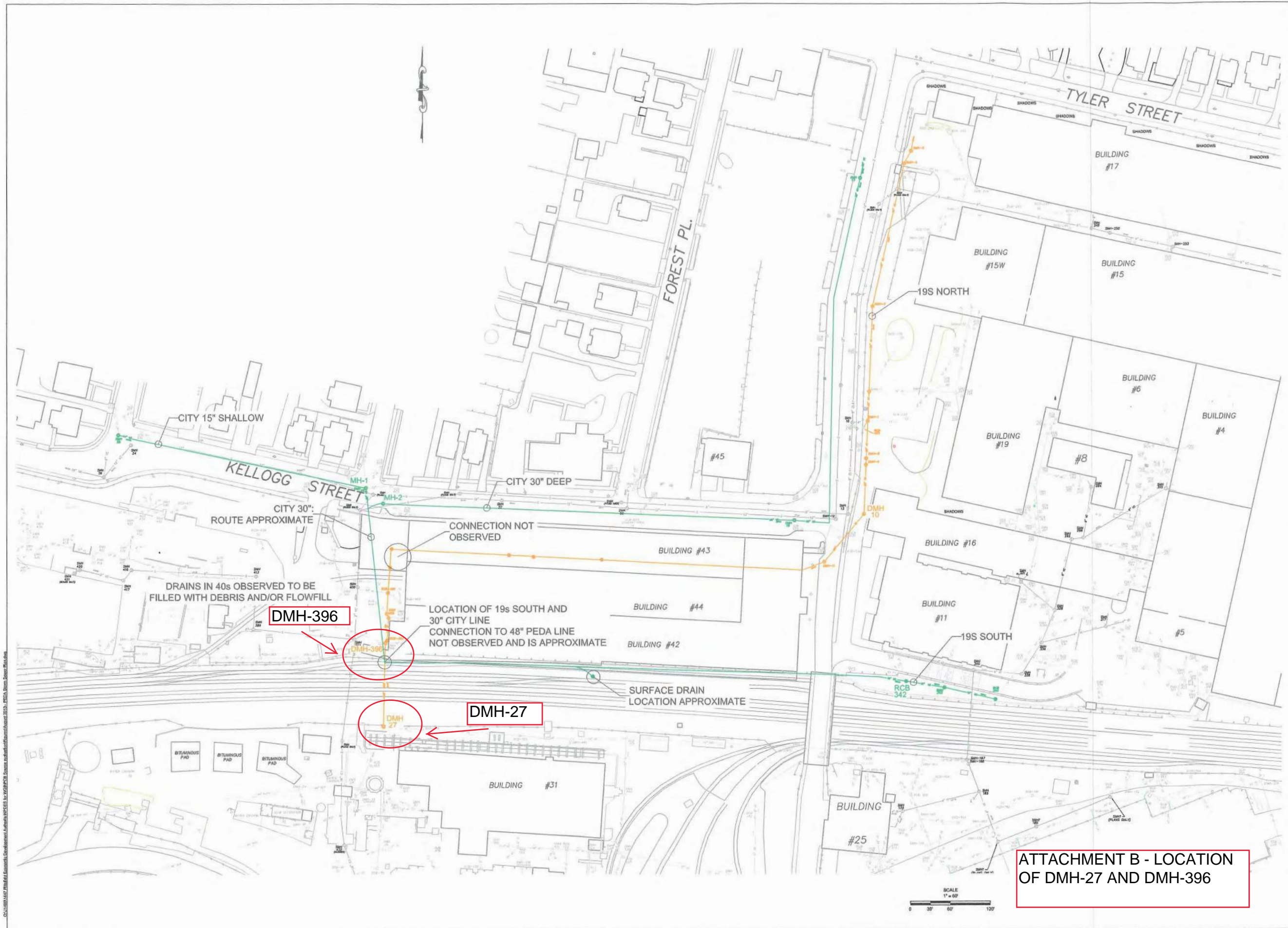
Scale in Feet



**Attachment B - Site
Map showing
locations of 20s, 30s,
40s, and Teens area.**

GE-PITTSFIELD/HOUSATONIC RIVER SITE

SITE MAP



O'REILLY, TALBOT & OKUN
[ASSOCIATES]

- PROJECT MANAGEMENT
 - ENVIRONMENTAL ENGINEERING
 - GEOTECHNICAL ENGINEERING
 - ASBESTOS PLANNING & MANAGEMENT
 - PCB ASSESSMENT
 - CORPORATE CAD
- 793 BRIDGE STREET
SUITE 610
SPRINGFIELD, MA 01103
PHONE: 478.736.8222
FAX: 478.736.8222
WWW: OTR@OTROKUN.COM

SCALE: 1" = 60'
PROJ. NO.: J1447-01-06
DRAWN: CDA
CHECKED: JEG
DATE: 08/08/13

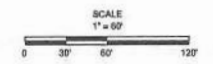
PROJECT TITLE:
**PITTSFIELD
ECONOMIC
DEVELOPMENT
AUTHORITY**

PITTSFIELD,
MASSACHUSETTS

DRAWING TITLE:
**STORM
DRAINS:
19s, 40s,
CITY**

DRAWING NO.:
**S.D.
NORTH**

**ATTACHMENT B - LOCATION
OF DMH-27 AND DMH-396**



NPDES PART II STANDARD CONDITIONS
(April 26, 2018)¹

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¹Updated July 17, 2018 to fix typographical errors.

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A. GENERAL REQUIREMENTS

1. Duty to Comply

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA or Act) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

- a. The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
- b. Penalties for Violations of Permit Conditions: The Director will adjust the civil and administrative penalties listed below in accordance with the Civil Monetary Penalty Inflation Adjustment Rule (83 Fed. Reg. 1190-1194 (January 10, 2018) and the 2015 amendments to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 note. See Pub. L.114-74, Section 701 (Nov. 2, 2015)). These requirements help ensure that EPA penalties keep pace with inflation. Under the above-cited 2015 amendments to inflationary adjustment law, EPA must review its statutory civil penalties each year and adjust them as necessary.

(1) Criminal Penalties

- (a) *Negligent Violations.* The CWA provides that any person who negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to criminal penalties of not less than \$2,500 nor more than \$25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation or by imprisonment of not more than 2 years, or both.
- (b) *Knowing Violations.* The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than 6 years, or both.
- (c) *Knowing Endangerment.* The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 303, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he or she is placing another person in imminent danger of death or serious bodily injury shall upon conviction be subject to a fine of not more than \$250,000 or by imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing

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endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in Section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.

- (d) *False Statement.* The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both. The Act further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.
- (2) *Civil Penalties.* The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act, the 2015 amendments to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 note, and 40 C.F.R. Part 19. *See* Pub. L.114-74, Section 701 (Nov. 2, 2015); 83 Fed. Reg. 1190 (January 10, 2018).
- (3) *Administrative Penalties.* The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty as follows:
- (a) *Class I Penalty.* Not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act, the 2015 amendments to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 note, and 40 C.F.R. Part 19. *See* Pub. L.114-74, Section 701 (Nov. 2, 2015); 83 Fed. Reg. 1190 (January 10, 2018).
- (b) *Class II Penalty.* Not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act the 2015 amendments to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461 note, and 40 C.F.R. Part 19. *See* Pub. L.114-74, Section 701 (Nov. 2, 2015); 83 Fed. Reg. 1190 (January 10, 2018).

2. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit

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condition.

3. Duty to Provide Information

The Permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

4. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from responsibilities, liabilities or penalties to which the Permittee is or may be subject under Section 311 of the CWA, or Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

5. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

6. Confidentiality of Information

a. In accordance with 40 C.F.R. Part 2, any information submitted to EPA pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 C.F.R. Part 2 (Public Information).

b. Claims of confidentiality for the following information will be denied:

- (1) The name and address of any permit applicant or Permittee;
- (2) Permit applications, permits, and effluent data.

c. Information required by NPDES application forms provided by the Director under 40 C.F.R. § 122.21 may not be claimed confidential. This includes information submitted on the forms themselves and any attachments used to supply information required by the forms.

7. Duty to Reapply

If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must apply for and obtain a new permit. The Permittee shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Director. (The Director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

8. State Authorities

Nothing in Parts 122, 123, or 124 precludes more stringent State regulation of any activity

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covered by the regulations in 40 C.F.R. Parts 122, 123, and 124, whether or not under an approved State program.

9. Other Laws

The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.

B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

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

2. Need to Halt or Reduce Not a Defense

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Duty to Mitigate

The Permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

4. Bypass

a. Definitions

(1) *Bypass* means the intentional diversion of waste streams from any portion of a treatment facility.

(2) *Severe property damage* means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. *Bypass not exceeding limitations*. The Permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this Section.

c. Notice

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- (1) *Anticipated bypass.* If the Permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass. As of December 21, 2020 all notices submitted in compliance with this Section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases, Subpart D to Part 3), § 122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to report electronically if specified by a particular permit or if required to do so by state law.
- (2) *Unanticipated bypass.* The Permittee shall submit notice of an unanticipated bypass as required in paragraph D.1.e. of this part (24-hour notice). As of December 21, 2020 all notices submitted in compliance with this Section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases, Subpart D to Part 3), § 122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to report electronically if specified by a particular permit or required to do so by law.

d. *Prohibition of bypass.*

- (1) Bypass is prohibited, and the Director may take enforcement action against a Permittee for bypass, unless:
 - (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
 - (c) The Permittee submitted notices as required under paragraph 4.c of this Section.
- (2) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph 4.d of this Section.

5. Upset

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

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improper operation.

- b. *Effect of an upset.* An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph B.5.c. of this Section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- c. *Conditions necessary for a demonstration of upset.* A Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (1) An upset occurred and that the Permittee can identify the cause(s) of the upset;
 - (2) The permitted facility was at the time being properly operated; and
 - (3) The Permittee submitted notice of the upset as required in paragraph D.1.e.2.b. (24-hour notice).
 - (4) The Permittee complied with any remedial measures required under B.3. above.
- d. *Burden of proof.* In any enforcement proceeding the Permittee seeking to establish the occurrence of an upset has the burden of proof.

C. MONITORING REQUIREMENTS

1. Monitoring and Records

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- b. Except for records of monitoring information required by this permit related to the Permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least 5 years (or longer as required by 40 C.F.R. § 503), the Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.
- c. Records of monitoring information shall include:
 - (1) The date, exact place, and time of sampling or measurements;
 - (2) The individual(s) who performed the sampling or measurements;
 - (3) The date(s) analyses were performed;
 - (4) The individual(s) who performed the analyses;
 - (5) The analytical techniques or methods used; and
 - (6) The results of such analyses.
- d. Monitoring must be conducted according to test procedures approved under 40 C.F.R. § 136 unless another method is required under 40 C.F.R. Subchapters N or O.
- e. The Clean Water Act provides that any person who falsifies, tampers with, or

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knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

2. Inspection and Entry

The Permittee shall allow the Director, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

D. REPORTING REQUIREMENTS

1. Reporting Requirements

- a. *Planned Changes*. The Permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
 - (1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 C.F.R. § 122.29(b); or
 - (2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements at 40 C.F.R. § 122.42(a)(1).
 - (3) The alteration or addition results in a significant change in the Permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- b. *Anticipated noncompliance*. The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

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- c. *Transfers.* This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the Permittee and incorporate such other requirements as may be necessary under the Clean Water Act. *See* 40 C.F.R. § 122.61; in some cases, modification or revocation and reissuance is mandatory.
- d. *Monitoring reports.* Monitoring results shall be reported at the intervals specified elsewhere in this permit.
 - (1) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices. As of December 21, 2016 all reports and forms submitted in compliance with this Section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases, Subpart D to Part 3), § 122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to report electronically if specified by a particular permit or if required to do so by State law.
 - (2) If the Permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 C.F.R. § 136, or another method required for an industry-specific waste stream under 40 C.F.R. Subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Director.
 - (3) Calculations for all limitations which require averaging or measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.
- e. *Twenty-four hour reporting.*
 - (1) The Permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Permittee becomes aware of the circumstances. A written report shall also be provided within 5 days of the time the Permittee becomes aware of the circumstances. The written report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (combined sewer overflows, sanitary sewer overflows, or bypass events), type of sewer overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volumes untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the sewer overflow event, and whether the noncompliance was related to wet weather. As of December 21, 2020 all

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reports related to combined sewer overflows, sanitary sewer overflows, or bypass events submitted in compliance with this section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases Subpart D to Part 3), § 122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to electronically submit reports related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section by a particular permit or if required to do so by state law. The Director may also require Permittees to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section.

- (2) The following shall be included as information which must be reported within 24 hours under this paragraph.
 - (a) Any unanticipated bypass which exceeds any effluent limitation in the permit. *See* 40 C.F.R. § 122.41(g).
 - (b) Any upset which exceeds any effluent limitation in the permit.
 - (c) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours. *See* 40 C.F.R. § 122.44(g).
 - (3) The Director may waive the written report on a case-by-case basis for reports under paragraph D.1.e. of this Section if the oral report has been received within 24 hours.
- f. *Compliance Schedules.* Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- g. *Other noncompliance.* The Permittee shall report all instances of noncompliance not reported under paragraphs D.1.d., D.1.e., and D.1.f. of this Section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph D.1.e. of this Section. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in paragraph D.1.e. and the applicable required data in Appendix A to 40 C.F.R. Part 127. As of December 21, 2020 all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events submitted in compliance with this section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 C.F.R. § 127.2(b), in compliance with this Section and 40 C.F.R. Part 3 (including, in all cases, Subpart D to Part 3), §122.22, and 40 C.F.R. Part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of Part 127, Permittees may be required to electronically submit reports related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section by a particular permit or if required to do so by state law. The Director may also require Permittees to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this Section.
- h. *Other information.* Where the Permittee becomes aware that it failed to submit any

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relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

- i. *Identification of the initial recipient for NPDES electronic reporting data.* The owner, operator, or the duly authorized representative of an NPDES-regulated entity is required to electronically submit the required NPDES information (as specified in Appendix A to 40 C.F.R. Part 127) to the appropriate initial recipient, as determined by EPA, and as defined in 40 C.F.R. § 127.2(b). EPA will identify and publish the list of initial recipients on its Web site and in the FEDERAL REGISTER, by state and by NPDES data group (see 40 C.F.R. § 127.2(c) of this Chapter). EPA will update and maintain this listing.

2. Signatory Requirement

- a. All applications, reports, or information submitted to the Director shall be signed and certified. *See* 40 C.F.R. §122.22.
- b. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

3. Availability of Reports.

Except for data determined to be confidential under paragraph A.6. above, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the State water pollution control agency and the Director. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statements on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA.

E. DEFINITIONS AND ABBREVIATIONS

1. General Definitions

For more definitions related to sludge use and disposal requirements, see EPA Region 1's NPDES Permit Sludge Compliance Guidance document (4 November 1999, modified to add regulatory definitions, April 2018).

Administrator means the Administrator of the United States Environmental Protection Agency, or an authorized representative.

Applicable standards and limitations means all, State, interstate, and federal standards and limitations to which a "discharge," a "sewage sludge use or disposal practice," or a related activity is subject under the CWA, including "effluent limitations," water quality standards, standards of performance, toxic effluent standards or prohibitions, "best management practices," pretreatment standards, and "standards for sewage sludge use or disposal" under Sections 301, 302, 303, 304, 306, 307, 308, 403 and 405 of the CWA.

Application means the EPA standard national forms for applying for a permit, including any additions, revisions, or modifications to the forms; or forms approved by EPA for use in

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“approved States,” including any approved modifications or revisions.

Approved program or *approved State* means a State or interstate program which has been approved or authorized by EPA under Part 123.

Average monthly discharge limitation means the highest allowable average of “daily discharges” over a calendar month, calculated as the sum of all “daily discharges” measured during a calendar month divided by the number of “daily discharges” measured during that month.

Average weekly discharge limitation means the highest allowable average of “daily discharges” over a calendar week, calculated as the sum of all “daily discharges” measured during a calendar week divided by the number of “daily discharges” measured during that week.

Best Management Practices (“BMPs”) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of “waters of the United States.” BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Bypass see B.4.a.1 above.

C-NOEC or “*Chronic (Long-term Exposure Test) – No Observed Effect Concentration*” means the highest tested concentration of an effluent or a toxicant at which no adverse effects are observed on the aquatic test organisms at a specified time of observation.

Class I sludge management facility is any publicly owned treatment works (POTW), as defined in 40 C.F.R. § 501.2, required to have an approved pretreatment program under 40 C.F.R. § 403.8 (a) (including any POTW located in a State that has elected to assume local program responsibilities pursuant to 40 C.F.R. § 403.10 (e)) and any treatment works treating domestic sewage, as defined in 40 C.F.R. § 122.2, classified as a Class I sludge management facility by the EPA Regional Administrator, or, in the case of approved State programs, the Regional Administrator in conjunction with the State Director, because of the potential for its sewage sludge use or disposal practice to affect public health and the environment adversely.

Contiguous zone means the entire zone established by the United States under Article 24 of the Convention on the Territorial Sea and the Contiguous Zone.

Continuous discharge means a “discharge” which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or similar activities.

CWA means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Public Law 92-500, as amended by Public Law 95-217, Public Law 95-576, Public Law 96-483 and Public Law 97-117, 33 U.S.C. 1251 *et seq.*

CWA and regulations means the Clean Water Act (CWA) and applicable regulations promulgated thereunder. In the case of an approved State program, it includes State program requirements.

Daily Discharge means the “discharge of a pollutant” measured during a calendar day or any

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other 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the “daily discharge” is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the “daily discharge” is calculated as the average measurement of the pollutant over the day.

Direct Discharge means the “discharge of a pollutant.”

Director means the Regional Administrator or an authorized representative. In the case of a permit also issued under Massachusetts’ authority, it also refers to the Director of the Division of Watershed Management, Department of Environmental Protection, Commonwealth of Massachusetts.

Discharge

- (a) When used without qualification, *discharge* means the “discharge of a pollutant.”
- (b) As used in the definitions for “interference” and “pass through,” *discharge* means the introduction of pollutants into a POTW from any non-domestic source regulated under Section 307(b), (c) or (d) of the Act.

Discharge Monitoring Report (“DMR”) means the EPA uniform national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by Permittees. DMRs must be used by “approved States” as well as by EPA. EPA will supply DMRs to any approved State upon request. The EPA national forms may be modified to substitute the State Agency name, address, logo, and other similar information, as appropriate, in place of EPA’s.

Discharge of a pollutant means:

- (a) Any addition of any “pollutant” or combination of pollutants to “waters of the United States” from any “point source,” or
- (b) Any addition of any pollutant or combination of pollutants to the waters of the “contiguous zone” or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation.

This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any “indirect discharger.”

Effluent limitation means any restriction imposed by the Director on quantities, discharge rates, and concentrations of “pollutants” which are “discharged” from “point sources” into “waters of the United States,” the waters of the “contiguous zone,” or the ocean.

Effluent limitation guidelines means a regulation published by the Administrator under section 304(b) of CWA to adopt or revise “effluent limitations.”

Environmental Protection Agency (“EPA”) means the United States Environmental Protection

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Agency.

Grab Sample means an individual sample collected in a period of less than 15 minutes.

Hazardous substance means any substance designated under 40 C.F.R. Part 116 pursuant to Section 311 of CWA.

Incineration is the combustion of organic matter and inorganic matter in sewage sludge by high temperatures in an enclosed device.

Indirect discharger means a nondomestic discharger introducing “pollutants” to a “publicly owned treatment works.”

Interference means a discharge (see definition above) which, alone or in conjunction with a discharge or discharges from other sources, both:

- (a) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
- (b) Therefore is a cause of a violation of any requirement of the POTW’s NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resources Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of the SDWA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Landfill means an area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile.

Land application is the spraying or spreading of sewage sludge onto the land surface; the injection of sewage sludge below the land surface; or the incorporation of sewage sludge into the soil so that the sewage sludge can either condition the soil or fertilize crops or vegetation grown in the soil.

Land application unit means an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for agricultural purposes or for treatment and disposal.

LC₅₀ means the concentration of a sample that causes mortality of 50% of the test population at a specific time of observation. The *LC₅₀* = 100% is defined as a sample of undiluted effluent.

Maximum daily discharge limitation means the highest allowable “daily discharge.”

Municipal solid waste landfill (MSWLF) unit means a discrete area of land or an excavation that receives household waste, and that is not a land application unit, surface impoundment, injection well, or waste pile, as those terms are defined under 40 C.F.R. § 257.2. A MSWLF unit also may receive other types of RCRA Subtitle D wastes, such as commercial solid waste, nonhazardous sludge, very small quantity generator waste and industrial solid waste. Such a landfill may be

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publicly or privately owned. A MSWLF unit may be a new MSWLF unit, an existing MSWLF unit or a lateral expansion. A construction and demolition landfill that receives residential lead-based paint waste and does not receive any other household waste is not a MSWLF unit.

Municipality

- (a) When used without qualification *municipality* means a city, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of CWA.
- (b) As related to sludge use and disposal, *municipality* means a city, town, borough, county, parish, district, association, or other public body (including an intermunicipal Agency of two or more of the foregoing entities) created by or under State law; an Indian tribe or an authorized Indian tribal organization having jurisdiction over sewage sludge management; or a designated and approved management Agency under Section 208 of the CWA, as amended. The definition includes a special district created under State law, such as a water district, sewer district, sanitary district, utility district, drainage district, or similar entity, or an integrated waste management facility as defined in Section 201 (e) of the CWA, as amended, that has as one of its principal responsibilities the treatment, transport, use or disposal of sewage sludge.

National Pollutant Discharge Elimination System means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318, and 405 of the CWA. The term includes an “approved program.”

New Discharger means any building, structure, facility, or installation:

- (a) From which there is or may be a “discharge of pollutants;”
- (b) That did not commence the “discharge of pollutants” at a particular “site” prior to August 13, 1979;
- (c) Which is not a “new source;” and
- (d) Which has never received a finally effective NPDES permit for discharges at that “site.”

This definition includes an “indirect discharger” which commences discharging into “waters of the United States” after August 13, 1979. It also includes any existing mobile point source (other than an offshore or coastal oil and gas exploratory drilling rig or a coastal oil and gas exploratory drilling rig or a coastal oil and gas exploratory drilling rig or a coastal oil and gas developmental drilling rig) such as a seafood processing rig, seafood processing vessel, or aggregate plant, that begins discharging at a “site” for which it does not have a permit; and any offshore or coastal mobile oil and gas exploratory drilling rig or coastal mobile oil and gas developmental drilling rig that commences the discharge of pollutants after August 13, 1979, at a “site” under EPA’s permitting jurisdiction for which it is not covered by an individual or general permit and which is located in an area determined by the Director in the issuance of a final permit to be in an area of biological concern. In determining whether an area is an area of biological concern, the Director shall consider the factors specified in 40 C.F.R. §§ 125.122 (a) (1) through (10).

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An offshore or coastal mobile exploratory drilling rig or coastal mobile developmental drilling rig will be considered a “new discharger” only for the duration of its discharge in an area of biological concern.

New source means any building, structure, facility, or installation from which there is or may be a “discharge of pollutants,” the construction of which commenced:

- (a) After promulgation of standards of performance under Section 306 of CWA which are applicable to such source, or
- (b) After proposal of standards of performance in accordance with Section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal.

NPDES means “National Pollutant Discharge Elimination System.”

Owner or operator means the owner or operator of any “facility or activity” subject to regulation under the NPDES programs.

Pass through means a Discharge (see definition above) which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW’s NPDES permit (including an increase in the magnitude or duration of a violation).

Pathogenic organisms are disease-causing organisms. These include, but are not limited to, certain bacteria, protozoa, viruses, and viable helminth ova.

Permit means an authorization, license, or equivalent control document issued by EPA or an “approved State” to implement the requirements of Parts 122, 123, and 124. “Permit” includes an NPDES “general permit” (40 C.F.R § 122.28). “Permit” does not include any permit which has not yet been the subject of final agency action, such as a “draft permit” or “proposed permit.”

Person means an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof.

Person who prepares sewage sludge is either the person who generates sewage sludge during the treatment of domestic sewage in a treatment works or the person who derives a material from sewage sludge.

pH means the logarithm of the reciprocal of the hydrogen ion concentration measured at 25° Centigrade or measured at another temperature and then converted to an equivalent value at 25° Centigrade.

Point Source means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff (see 40 C.F.R. § 122.3).

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials

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(except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 *et seq.*)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does not mean:

- (a) Sewage from vessels; or
- (b) Water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well, if the well is used either to facilitate production or for disposal purposes is approved by the authority of the State in which the well is located, and if the State determines that the injection or disposal will not result in the degradation of ground or surface water resources.

Primary industry category means any industry category listed in the NRDC settlement agreement (*Natural Resources Defense Council et al. v. Train*, 8 E.R.C. 2120 (D.D.C. 1976), *modified* 12 E.R.C. 1833 (D.D.C. 1979)); also listed in Appendix A of 40 C.F.R. Part 122.

Privately owned treatment works means any device or system which is (a) used to treat wastes from any facility whose operator is not the operator of the treatment works and (b) not a “POTW.”

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Publicly owned treatment works (POTW) means a treatment works as defined by Section 212 of the Act, which is owned by a State or municipality (as defined by Section 504(4) of the Act). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality as defined in Section 502(4) of the Act, which has jurisdiction over the indirect discharges to and the discharges from such a treatment works.

Regional Administrator means the Regional Administrator, EPA, Region I, Boston, Massachusetts.

Secondary industry category means any industry which is not a “primary industry category.”

Septage means the liquid and solid material pumped from a septic tank, cesspool, or similar domestic sewage treatment system, or a holding tank when the system is cleaned or maintained.

Sewage Sludge means any solid, semi-solid, or liquid residue removed during the treatment of municipal waste water or domestic sewage. Sewage sludge includes, but is not limited to, solids removed during primary, secondary, or advanced waste water treatment, scum, septage, portable toilet pumpings, type III marine sanitation device pumpings (33 C.F.R. Part 159), and sewage sludge products. Sewage sludge does not include grit or screenings, or ash generated during the incineration of sewage sludge.

Sewage sludge incinerator is an enclosed device in which only sewage sludge and auxiliary fuel are fired.

Sewage sludge unit is land on which only sewage sludge is placed for final disposal. This does

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not include land on which sewage sludge is either stored or treated. Land does not include waters of the United States, as defined in 40 C.F.R. § 122.2.

Sewage sludge use or disposal practice means the collection, storage, treatment, transportation, processing, monitoring, use, or disposal of sewage sludge.

Significant materials includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substance designated under Section 101(14) of CERCLA; any chemical the facility is required to report pursuant to Section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with storm water discharges.

Significant spills includes, but is not limited to, releases of oil or hazardous substances in excess of reportable quantities under Section 311 of the CWA (see 40 C.F.R. §§ 110.10 and 117.21) or Section 102 of CERCLA (see 40 C.F.R. § 302.4).

Sludge-only facility means any “treatment works treating domestic sewage” whose methods of sewage sludge use or disposal are subject to regulations promulgated pursuant to section 405(d) of the CWA, and is required to obtain a permit under 40 C.F.R. § 122.1(b)(2).

State means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, the Commonwealth of the Northern Mariana Islands, the Trust Territory of the Pacific Islands, or an Indian Tribe as defined in the regulations which meets the requirements of 40 C.F.R. § 123.31.

Store or storage of sewage sludge is the placement of sewage sludge on land on which the sewage sludge remains for two years or less. This does not include the placement of sewage sludge on land for treatment.

Storm water means storm water runoff, snow melt runoff, and surface runoff and drainage.

Storm water discharge associated with industrial activity means the discharge from any conveyance that is used for collecting and conveying storm water and that is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant.

Surface disposal site is an area of land that contains one or more active sewage sludge units.

Toxic pollutant means any pollutant listed as toxic under Section 307(a)(1) or, in the case of “sludge use or disposal practices,” any pollutant identified in regulations implementing Section 405(d) of the CWA.

Treatment works treating domestic sewage means a POTW or any other sewage sludge or waste water treatment devices or systems, regardless of ownership (including federal facilities), used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated for the disposal of sewage sludge. This definition does not include septic tanks or similar devices.

For purposes of this definition, “domestic sewage” includes waste and waste water from humans or household operations that are discharged to or otherwise enter a treatment works. In States where there is no approved State sludge management program under Section 405(f) of the CWA, the Director may designate any person subject to the standards for sewage sludge use and

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disposal in 40 C.F.R. Part 503 as a “treatment works treating domestic sewage,” where he or she finds that there is a potential for adverse effects on public health and the environment from poor sludge quality or poor sludge handling, use or disposal practices, or where he or she finds that such designation is necessary to ensure that such person is in compliance with 40 C.F.R. Part 503.

Upset see B.5.a. above.

Vector attraction is the characteristic of sewage sludge that attracts rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents.

Waste pile or *pile* means any non-containerized accumulation of solid, non-flowing waste that is used for treatment or storage.

Waters of the United States or *waters of the U.S.* means:

- (a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (b) All interstate waters, including interstate “wetlands;”
- (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, “wetlands”, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
 - (1) Which are or could be used by interstate or foreign travelers for recreational or other purpose;
 - (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - (3) Which are used or could be used for industrial purposes by industries in interstate commerce;
- (d) All impoundments of waters otherwise defined as waters of the United States under this definition;
- (e) Tributaries of waters identified in paragraphs (a) through (d) of this definition;
- (f) The territorial sea; and
- (g) “Wetlands” adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 C.F.R. § 423.11(m) which also meet the criteria of this definition) are not waters of the United States. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the United States (such as disposal area in wetlands) nor resulted from the impoundment of waters of the United States. Waters of the United States do not include prior converted cropland.

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Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

Wetlands means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Whole Effluent Toxicity (WET) means the aggregate toxic effect of an effluent measured directly by a toxicity test.

Zone of Initial Dilution (ZID) means the region of initial mixing surrounding or adjacent to the end of the outfall pipe or diffuser ports, provided that the ZID may not be larger than allowed by mixing zone restrictions in applicable water quality standards.

2. Commonly Used Abbreviations

BOD	Five-day biochemical oxygen demand unless otherwise specified
CBOD	Carbonaceous BOD
CFS	Cubic feet per second
COD	Chemical oxygen demand
Chlorine	
Cl ₂	Total residual chlorine
TRC	Total residual chlorine which is a combination of free available chlorine (FAC, see below) and combined chlorine (chloramines, etc.)
TRO	Total residual chlorine in marine waters where halogen compounds are present
FAC	Free available chlorine (aqueous molecular chlorine, hypochlorous acid, and hypochlorite ion)
Coliform	
Coliform, Fecal	Total fecal coliform bacteria
Coliform, Total	Total coliform bacteria
Cont.	Continuous recording of the parameter being monitored, i.e. flow, temperature, pH, etc.
Cu. M/day or M ³ /day	Cubic meters per day
DO	Dissolved oxygen

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kg/day	Kilograms per day
lbs/day	Pounds per day
mg/L	Milligram(s) per liter
mL/L	Milliliters per liter
MGD	Million gallons per day
Nitrogen	
Total N	Total nitrogen
NH ₃ -N	Ammonia nitrogen as nitrogen
NO ₃ -N	Nitrate as nitrogen
NO ₂ -N	Nitrite as nitrogen
NO ₃ -NO ₂	Combined nitrate and nitrite nitrogen as nitrogen
TKN	Total Kjeldahl nitrogen as nitrogen
Oil & Grease	Freon extractable material
PCB	Polychlorinated biphenyl
Surfactant	Surface-active agent
Temp. °C	Temperature in degrees Centigrade
Temp. °F	Temperature in degrees Fahrenheit
TOC	Total organic carbon
Total P	Total phosphorus
TSS or NFR	Total suspended solids or total nonfilterable residue
Turb. or Turbidity	Turbidity measured by the Nephelometric Method (NTU)
µg/L	Microgram(s) per liter
WET	“Whole effluent toxicity”
ZID	Zone of Initial Dilution

RESPONSE TO COMMENTS**NPDES Permit # MA0040231
Pittsfield Economic Development Authority
William Stanley Business Park of the Berkshires
Pittsfield, Massachusetts**

The U.S. Environmental Protection Agency's Region 1 (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) (together, the Agencies) are issuing a Final National Pollutant Discharge Elimination System (NPDES) Permit (Final Permit) to the Pittsfield Economic Development Authority (the Permittee) for the William Stanley Business Park of the Berkshires (the site), located in Pittsfield, Massachusetts. This permit is being issued under the Federal Clean Water Act (CWA), 33 U.S.C., §§ 1251 et. seq. and the Massachusetts Clean Water Act, M.G.L. Ch. 21, §§ 26-35.

In accordance with the provisions of 40 CFR § 124.17, this document presents EPA's responses to comments received on the draft NPDES Permit #MA0040231 (the Draft Permit). The Response to Comments explains and supports EPA's determinations that form the basis of the Final Permit. From April 8, 2015 through June 6, 2015, EPA and MassDEP (together, the Agencies) solicited public comments on the Draft Permit, for the reissuance of a NPDES permit to discharge stormwater and groundwater infiltration from Outfall Serial Number 001 to Silver Lake in Pittsfield, Massachusetts.

Although EPA's decision-making process has benefited from the comments submitted, the information and arguments presented did not raise any substantial new questions concerning the permit that warrants EPA exercising its discretion to reopen the public comment period. EPA did, however, make certain changes in response to the public comments EPA received on the Draft Permit, listed in Part 1, below. The analyses underlying these changes are explained in the responses to individual comments in Part 2 and 3, below, and are reflected in the Final Permit. EPA maintains that the Final Permit is a "logical outgrowth" of the Draft Permit that was available for public comment. A copy of the Final Permit may be also obtained by writing or calling Robin L. Johnson, U.S. EPA, 5 Post Office Square, Suite 100 (Mail Code: 06-1), Boston, MA 02109-3912; Telephone: (617) 918-1045; Email johnson.robin@epa.gov.

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1. Summary of Changes to the Final Permit

EPA has made administrative changes to correct the addresses and submittal procedures regarding the submittal of reports. These revisions have been included in Parts I.D.2.b and I.D.2.c. of the final permit.

EPA made several changes in response to comments and information received regarding the 2015 Draft Permit. For ease of reference, a list of these changes is provided below in accordance with to 40 CFR § 124.17(a)(1). The reasons for these changes are included in EPA’s detailed responses to comments in Parts 2 and 3 of this document.

1. On the cover page, the Massachusetts contact was updated from David Ferris to Lealdon Langley and the Division from Massachusetts Wastewater Management Program to the Division of Watershed Management to reflect updated organizational structure at MassDEP.
2. On the cover page, the EPA contact information was updated from Office of Ecosystem Protection to Water Division to reflect recent the organizational realignment within the Region.
3. Footnote 2 was added to Table I.A.1. explaining that all analyses must use sufficiently sensitive analytical methods. Sufficiently sensitive methods are EPA-approved methods that are capable of detecting and measuring the pollutants at, or below, the applicable water quality criteria or permit limits. This is pursuant to amendments to the NPDES regulations that were finalized in 2014, but EPA did

- not create the standard footnote until after the Draft Permit was issued in April 2015.
4. Footnote 3 of Table I.A.1 was modified to remove reference to a sample precipitation data report form. The Final Permit permits PEDA to report precipitation data from nearby Pittsfield Airport in lieu of on-site precipitation monitoring. See Response to Comment IV.b.
 5. Table I.A.1, PCBs: Footnote 7 was added, which states that if EPA adopts an updated PCB detection method into 40 CFR Part 136, PEDA must begin using that method for PCB analysis and DMR reporting within 6 months after EPA notifies the Permittee that the updated PCB analytical method is available. See Response to Comment 2.A.IV.a.(viii).
 6. In Table I.A.1, the PCB limit was changed from 0.000064 µg/L to a non-numeric (i.e. BMPs) limit with monthly monitoring and a minimum level requirement for analysis, and to demonstrate compliance with this limit. See Response to Comment 2.A.IV.a.(viii).
 7. Table I.A.1, flow: the measurement frequency was changed to “When Discharging” and the Sample Type was changed to “Meter or Estimate.” See Response to Comment 2.A.IV.a.(i).
 8. Table I.A.1, Oil and Grease: the monitoring frequency was changed to once per month. See Response to Comment 2.A.IV.a.(ii).
 9. Table I.A.1, TSS: The limits have been changed to 30 mg/L monthly average and 100 mg/L maximum daily. The monitoring frequency has also been changed to once per month. See Response to Comment 2.A.IV.a.(iii).
 10. Table I.A.1, pH: The pH limits were changed to a range of 6.5 to 9.0 SU.

Also, Footnote 5 has been added:

The pH of the effluent shall not be less than 6.5 standard units (S.U.) nor greater than 9.0 SU at any time. Please see Section I.C.4 of this permit for information on requirements for maintaining this pH limit range in future permits.

See Response to Comment 2.A.IV.a.(iv) for discussion of pH changes.

11. Table I.A.1, *E. coli*: The monitoring frequency has been changed to once per year. See Response to Comment 2.A.IV.a.(iv).
12. Table I.A.1, Total Phosphorus: The monitoring requirement has been removed. See Response to Comment 2.A.IV.a.(v).

13. Table I.A.1, Total Nitrogen: The monitoring requirement has been reduced to twice per year. See Response to Comment 2.A.IV.a.(vi).
14. Table I.A.1, Whole Effluent Toxicity: The testing frequency was changed from four times per year to twice per year. See Response to Comment 2.A.IV.a.(ix).
15. Table I.A.1 Footnote 3 was added to Table 1.A.1. with updated measurement frequency language.
16. Table I.A.1, Footnote 8: The test dates for the semiannual WET test was updated to April and October. Five years after the effective date, the test frequency may be reduced to one test each two years if certain requirements are met. See Response 2.A.IV.a.
17. In Section I.C.2, the site specific BMPs were updated and expanded. See Responses 2.A.V.a through d.
18. In Section I.C.3, a Compliance Schedule was added for the BMP and SWPPP requirements of the permit. See Responses 2.A.V.a through d.
19. In Section I.D, Office of Ecosystem Protection was changed to the Water Division and Office of Environmental Stewardship was changed to the Enforcement and Compliance Assurance Division (ECAD)to reflect the recent organizational realignment within the Region.
20. Part I.F of the Draft Permit has been modified and is now included as Part I.E.1 and I.E.2 of the Final Permit. Language related to State Certification has been removed due to the length of time that has elapsed between EPA’s issuance of the Draft Permit (and request for certification pursuant to section 401 of the CWA) and the issuance of this Final Permit. *See* 40 CFR § 124.53; 33 U.S.C. § 1341(a)(1). As such, EPA has deemed the certification waived, but has included Massachusetts’ certification as part of the administrative record for this permit.

2. Response to Written Comments

A. Comments from Corydon Thurston, Director of the Pittsfield Economic Development Authority, dated June 4, 2015.

Comment I. Executive Summary

The Pittsfield Economic Development Authority (“PEDA”) appreciates the opportunity to review and comment on draft permit number MA0040231, dated April 3, 2015, for the PEDA Outfall 001 at the William Stanley Business Park of the Berkshires in Pittsfield, Massachusetts. PEDA is submitting the following comments to the US Environmental Protection Agency (“EPA”) and the Massachusetts Department of Environmental Protection (“MassDEP”) with respect to the draft permit.

PEDA questions the legal basis for the effluent limits. We believe that the effluent limits conflict with and would be prohibited by the consent decree entered into by EPA, MassDEP, GE, the City of Pittsfield and others with respect to the remediation of the former GE manufacturing plant and other environmentally impacted areas (“the Site”). United States of America, State of Connecticut, and Commonwealth of Massachusetts v. General Electric Company, Civil Action No. 99-30225-MAP et seq., entered by the United States District Court for the District of Massachusetts on October 27, 2000 (the “Consent Decree”) (see Exhibit A, Consent Decree) established cleanup requirements and performance standards that EPA and MassDEP determined to be protective of human health and the environment. GE has met the cleanup requirements and performance standards at areas of the Site that has been transferred to PEDA ownership; and PEDA has maintained those cleanup requirements and performance standards. Under the terms of the Consent Decree, EPA and MassDEP cannot require additional response actions or more stringent standards. The draft permit nevertheless establishes numeric effluent limitations that would impose cleanup requirements well beyond the Best Management Practices (“BMPs”) required for stormwater outfalls under the Consent Decree and may require additional groundwater cleanup, again beyond the requirements of the Consent Decree.

An Agreement and Covenant Not to Sue between EPA and PEDA, dated January 3, 2002, as amended on February 10, 2012 (the “Covenant Not to Sue”), extends the protections of the Consent Decree to PEDA. The Covenant Not to Sue, as amended, is attached as Exhibit B. The effluent limitations proposed in the draft permit would be prohibited by the Consent Decree and by the Covenant Not to Sue because they are far more stringent than the performance standards of the Consent Decree and would require PEDA to assume monitoring, treatment and site remediation activities beyond those required in the Consent Decree, in conflict with the protections provided under its Covenant Not to Sue.

As discussed herein, PEDA believes that the effluent limitations are unnecessarily stringent, arbitrary, and capricious. The site is no longer an active industrial site and should not be regulated as such. In fact, both PEDA and the City of Pittsfield contribute stormwater to this system (52 acres and 91 acres respectively). Both entities are municipal agencies and both should be regulated as municipal entities, based upon municipal permit standards. However, the limitations set forth in the draft permit are based on the land’s former industrial use. The permit fails to take into consideration the current conditions and the improved sampling results achieved since PEDA first took over this permit and applied for the permit renewal more than ten years ago. For example, in 2009 EPA sent a letter to General Electric’s counsel (attached at Exhibit C) stating that it had evaluated past data submitted to EPA and determined that PEDA was no longer required to sample for metals and whole effluent toxicity. However, the draft permit proposes to restore those same requirements that were previously determined to be unnecessary. In addition, PEDA has invested over \$3.5 million for the construction of a water quality basin and updates to its stormwater system. For the past five years after completing that work the average concentration of polychlorinated biphenyls (“PCBs”) discharged to Silver Lake has dropped significantly. During the past ten months of sampling, no polychlorinated biphenyls PCBs have been detected, yet this permit

proposes a limit that is technically and financially infeasible. Even EPA recognized the difficulty in achieving the standard. The Fact Sheet for the draft permit states that because the effluent limit for PCBs is “several orders of magnitude below the detection capabilities of current analytical methods,” EPA established a separate compliance limit at the current technical capability to detect the presence of PCBs in water. PEDDA questions the need to set a standard that cannot be quantified. PEDDA also questions several of the other compliance limits, as discussed later in these comments.

The permit conditions are financially infeasible. Strict adherence would require a water treatment facility in excess of \$5 million and even adhering to the compliance limit would require a capital cost in excess of \$1 million for necessary improvements. This disproportionate financial burden would put PEDDA out of business. Compliance monitoring alone will require approximately fifteen-percent of PEDDA’s annual budget, severely limiting PEDDA’s ability to advance its core mission of economic development. Given the lack of any meaningful justification for the need to increase compliance monitoring requirements, PEDDA questions the need for these costly requirements and believes that any requirement for effluent limits would be arbitrary and capricious.

PEDDA also questions the classification of Silver Lake as a Class B waterbody. The permit assumes that Silver Lake is a Class B warm water fishery based upon a default designation because it has not been otherwise designated. PEDDA believes that this designation is arbitrary and ignores the unique conditions at Silver Lake. We understand that the regulations pursuant to the Clean Water Act (“CWA”) require permit conditions that will be consistent with the water quality standards established under CWA Section 303. However, it is unlikely that Silver Lake will ever meet Class B conditions. GE completed the cleanup of Silver Lake and the EPA and MassDEP have approved the Final Completion Report, but the fish in the lake cannot be consumed. GE is required to maintain signs around the lake warning the public not to eat the fish (see Exhibit D, photo of fish warning sign at Silver Lake). As noted in the GE-Pittsfield River Site – Silver Lake Area (GECD600) 2014 Annual Monitoring Report, dated March 4, 2015, (Exhibit E), recent sampling of the water indicates the PCB levels remain in excess of the compliance limits set forth in the draft permit and well above the actual effluent limit for PCBs. MassDEP has some flexibility in determining the applicable criteria and should have established water quality criteria that are consistent with the performance standards of the Consent Decree. PEDDA believes that the failure to harmonize the permit conditions with the actual post remediation conditions of the lake is a conflict with the terms of the Consent Decree and the Covenant Not to Sue.

PEDDA has already installed expensive stormwater management Best Management Practices (“BMPs”) that are proving effective and it is currently developing plans for additional BMPs including innovative low impact development infrastructure improvements. These additional BMPs would, if implemented, eliminate much of the discharge from Outfall 001. The BMPs under consideration include storage, reuse, and infiltration of stormwater and include some innovative measures for managing stormwater at brownfields sites.

PEDA has continuously embraced a responsible approach to managing stormwater on its site and intends to keep its progressive posture for planning, construction, and maintenance of BMPs. The construction of and subsequent improvements to the water quality basin, along with the grass swale which conveys water to the basin, represent concrete steps PEDA has implemented to manage stormwater. Further site development plans have continued to include effective stormwater BMPs starting at early planning stages, reflecting the proactive approach to early adoption of suitable BMPs. PEDA and its engineering team have recently retained the services of a green infrastructure expert, Wendi Goldsmith, who is a Certified Professional in Storm Water Quality and a Certified Professional Geologist. Her experience includes over twenty years of urban green infrastructure project work from early concept development, through complex operations and formal monitoring programs. Her green infrastructure projects in Massachusetts and elsewhere have been recognized through local, regional, national, and international awards. She will continue to offer technical and policy guidance to inform the development of future stormwater BMPs for PEDA, and her involvement represents a noteworthy commitment to ensuring a robust and creative approach to stormwater management. PEDA hopes that its BMPs can serve as a model for best practices at other brownfields properties throughout the country.

PEDA is willing to continue its investments in improved infrastructure. However, limited resources will not allow PEDA to develop and implement these beneficial BMPs while also complying with the monitoring requirements of the draft permit. PEDA respectfully requests that EPA and MassDEP revise the draft permit to eliminate the numeric effluent limits, as discussed more specifically in Section IV. We also request that EPA provide additional time to work with PEDA and the City of Pittsfield to establish an adaptive BMP approach for this brownfields property that has been transferred to municipal ownership for redevelopment.

Response to Comment I

As will be described in the more detailed responses that follow, issuance of the Final Permit does not conflict with the Consent Decree (“Decree” or “CD”), nor does it conflict with or undermine the Covenants Not to Sue. See Responses to Comments 2.A.III.a, 2.A.III.b, 2.B.II.b.1, and 2.B.II.b.2.

To the extent that the commenter objects to numeric effluent limits for PCBs and corresponding numeric compliance limits, as discussed previously in Table I.A.1, EPA is no longer including numeric limits and is instead requiring implementation of BMPs through an iterative approach to ensure PCB levels achieve compliance with Massachusetts’ water quality standards. See Response 2.A.V.a. Therefore, EPA need not respond to this objection as it is no longer relevant.

Financial Feasibility

PEDA claims that conditions included in the draft permit, particularly the PCB compliance limit, would be infeasible. First, as mentioned above and throughout, the Final Permit no longer includes numeric PCB limits.

Next, with respect to costs associated with achieving water quality-based effluent limitations, EPA is generally prohibited from considering cost when determining whether a water quality-based limit is necessary and when developing an appropriate limit. Section 301(b)(1)(C) of the CWA requires achievement of “any more stringent limitations than the technology-based requirements set forth in Section 301(b)(1)(A) and (B), including those necessary to meet water quality standards established pursuant to any State law or regulation.” Therefore, NPDES permits must contain effluent limitations which are sufficiently stringent to attain and maintain the water quality in the receiving water, in the absence of considering the cost to achieve such limits, availability or effectiveness of treatment technologies. *See U.S. Steel Corp. vs. Train*, 556 F.2d 822, 838 (7th Cir. 1977) (finding “states are free to force technology” and “if the states wish to achieve better water quality, they may [do so], even at the cost of economic and social dislocation”).

EPA may, however, consider those costs involved in achieving compliance with a water quality-based effluent limitation when establishing a reasonable schedule of compliance leading towards meeting a water quality-based effluent limitation. In the Final Permit, EPA has included a reasonable schedule for implementation of the BMPs required therein. See also EPA’s consideration of cost in development of site-specific technology-based effluent limits for TSS in Response to Comment 2.A.IV.b below.

The monitoring guidance in the Permit Writers’ Manual indicates that the “permit writer should establish monitoring frequencies sufficient to characterize the effluent quality and to detect events of noncompliance, considering the need for data and, as appropriate, the potential cost to the permittee.”

The Outfall 001 discharge contains a mix of groundwater and stormwater, with limited treatment capability, significant variability in contaminant concentrations, and receiving waters that afford no dilution in the near field. Dry weather discharge contaminant levels vary with changing groundwater levels. In addition to the normal variability of stormwater with the precipitation amount, precipitation intensity, and length of time between precipitation events, wet weather discharges also vary with precipitation amounts.

Relative to cost considerations, the Permit Writers’ Manual indicates that the cost of monitoring should be considered relative to the discharger’s capabilities. More importantly, EPA regulations require monitoring at a frequency sufficient to yield data which are representative of the monitored activity (40 CFR § 122.48), and require reporting at a frequency that takes into account the nature and effect of the

discharge and assures compliance with permit limitations (40 CFR § 122.44(i)). As a result, as will be discussed in more detail in other responses in this document, EPA has incorporated monitoring requirements that will ensure representative data collection and compliance with any applicable permit limitations. In some instances, and in response to concerns from PEDA, monitoring frequencies have been reduced.

Water Quality Classification of Silver Lake

The comment describes methods by which the designated use of Silver Lake may be changed or would allow a temporary modification to surface water quality standards for elevated PCB concentrations. Although the Commonwealth of Massachusetts has the authority to issue water quality variances (“WQV”) and conduct Use Attainability Analyses (“UAA”), it has done neither for Silver Lake. *See* 314 CMR 4.03(4). Neither has the Permittee petitioned MassDEP to adopt a variance or remove a use or designate a partial use pursuant to the Commonwealth’s regulations. Such a specific request would require not simply an appeal to MassDEP, but also a demonstration supported by the relevant information clearly enumerated under 314 CMR 4.03(4), a UAA by MassDEP, and a public notice process. Without proceeding pursuant to the regulatory process, EPA does not have authority to adopt a variance or modify the Commonwealth’s standards or waterbody classifications in this Final Permit issuance. *See also* 40 CFR § 131.14.

Furthermore, the comment seems to be implicitly requesting that EPA write the NPDES Permit as though a UAA or WQV for Silver Lake were already approved. Again, issuing a UAA or WQV is not within the scope of this permit proceeding and writing a permit as if a variance or UAA existed would violate the Clean Water Act and bypass the public notification and comment process laid out by the Act.

Existing BMPs

EPA notes PEDA’s previous and ongoing investment in improved infrastructure and implementation of BMPs. EPA has addressed BMPs in the Final Permit in Responses to Comments 2.A.V.a through 2.A.V.d.

Comment II. Background

a. PEDA’s Mission and History of the Property Acquisition

PEDA was established in 1998 pursuant to St. 1998 c. 194 §268, as amended by St. 1998, c. 486 §2 as a public entity for the purpose of promoting economic development in the City of Pittsfield, Massachusetts and in Berkshire County, Massachusetts through the acquisition and redevelopment of environmentally impacted property. In May 2005, GE transferred two parcels, totaling approximately 26 acres, of its former manufacturing facility to PEDA, pursuant to the Definitive Economic Development Agreement entered

into in July 1999 among GE, PEDA and the City of Pittsfield (the “DEDA”). In December 2010 and December 2011 PEDA acquired two additional parcels from GE, for a total of 52 acres of land. These parcels were transferred to PEDA after GE completed the remediation of these the parcels in accordance with the requirements of the Consent Decree and after EPA reviewed and approved the cleanup and issued Certificates of Completion. PEDA is in the process of redeveloping this land as the William Stanley Business Park.

b. Discharge Permit History

During the time that GE conducted active manufacturing operations at the property, GE maintained several outfalls that discharged stormwater and industrial wastewater under NPDES Multi-Sector General Permit, MAR05A021 and GE’s individual permit, number MA 0003891. The GE individual permit expired on February 7, 1997 and was administratively continued upon GE’s timely submission of a permit application.

With transfer of the first two parcels of land to PEDA in May 2005, PEDA notified EPA and MassDEP that PEDA was assuming responsibility for three of GE’s outfalls (Outfalls 001, 01A and 004). EPA transferred the expired GE individual permit to PEDA solely with respect to the three outfalls and assigned new permit number MA0040231 for those three outfalls. In November 2005, PEDA submitted its application to renew its NDPEs permit. In 2009 EPA notified PEDA that sampling for metals and whole effluent toxicity (“WET”) was no longer required. (see Exhibit C). Now, more than ten years after PEDA submitted its original NPDES permit application, EPA issued the draft permit which include requirements for WET sampling and stringent effluent limitations. The draft permit now pending is for the renewal of PEDA’s individual permit.

Several years after submitting its renewal application, PEDA completed major infrastructure modifications at its property (described in greater detail in paragraph II.c below). These modifications eliminated Outfalls 01A and 004, leaving only Outfall 001 subject to the permit. PEDA’s modifications and implementation of BMPs have greatly improved the quality of the stormwater discharge (see Exhibit F). PEDA has kept EPA informed of these changes.¹

c. Material Changes to the PEDA Stormwater System

After PEDA acquired the first 26 acres of land from GE and after PEDA submitted its permit renewal application to EPA and MassDEP, PEDA completed major infrastructure improvements at its property. These improvements were completed in 2010 and included:

¹ Letter from William Hines, PEDA Executive Director, to Robert Kubit (MassDEP), March 3, 2009 and letter from William Hines, PEDA Executive Director to Roger Janson (US EPA), March 9, 2009, requesting approval to move Outfall 001, updated application to confirm that the 91 acres of municipal land would continue to drain through the PEDA stormwater system; and provided conceptual design drawings for the water quality basin. By letter, dated November 6, 2009 from Roger Janson to William Hines, EPA approved the request to eliminate Outfall 01A and relocate Outfall 001. By letter, dated December 18, 2009, from David Langseth, consultant to PEDA, to Brian Pitt of EPA, PEDA confirmed that the outfall relocation was completed.

- Stormwater pipes throughout the 26-acres were replaced and/or lined;
- Outfalls 004 and 01A were eliminated and stormwater that previously discharged through those two outfalls was redirected;
- PEDDA constructed a new stormwater conveyance system with grass swales conveying flows into a new water quality basin;
- A water quality basin was designed and constructed to treat stormwater prior to discharging through Outfall 001 and PEDDA eliminated an old oil water separator that previously treated stormwater.
- New conveyance systems maintained the existing connections of the municipal stormwater system and stormwater from PEDDA's northern 26 acres to the water quality basin.

The site conditions have changed since PEDDA originally filed its permit renewal application ten years ago. The site improvements have greatly reduced the concentration of contaminants sampled at Outfall 001 (see Section IV.a below).

d. Sources of the Stormwater that Discharges Through Outfall 001

Although Outfall 001 is connected to the water quality basin located on the southern portion of the PEDDA property, only one-third of the land area that drains through the outfall is owned by PEDDA. The remaining two-thirds of the land is approximately 91 acres of the surrounding neighborhood (see Figure 2 attached to the Fact Sheet). The water that drains from these 91 acres is municipal stormwater discharge from the City of Pittsfield. The City has responsibility for the quality of its stormwater discharge. PEDDA can recommend or reach agreements with the City, but PEDDA does not have control over the quality or quantity of this municipal stormwater. PEDDA's stormwater is collected from the northern and southern portions of William Stanley Business Park. As noted above, the southern portion has been upgraded with a new stormwater conveyance system and that drains to the water quality basin before discharging through Outfall 001. The northern portion retains the original infrastructure, and the stormwater from this area of the PEDDA property drains into the water quality basin prior to discharging through Outfall 001.

The water quality basin is designed as a wet basin, meaning groundwater infiltrates into the basin and saturated soils are maintained for improved nutrient removal functions. Before PEDDA constructed the water quality basin, GE had completed the remediation of the site and the groundwater has been determined to meet the performance standards set forth in the Consent Decree and to be protective of human health and the environment. The draft NPDES permit and the Fact Sheet, in contrast, assume that the groundwater is contaminated and must be treated as such. However, the agencies have confirmed that the groundwater meets the performance standards under the Consent Decree and that no further action is required under the Comprehensive Environmental Response,

Compensation, and Liability Act (“CERCLA”), the Resource Conservation and Recovery Act (“RCRA”) and the CWA.

Response to Comment II

PEDA provides a general background of its property, divided into a few discrete topics. EPA will address each topic in turn.

a. PEDA’s Mission and History of the Property Acquisition

EPA notes the facts related to PEDA’s acquisition of the property from GE in 2005, 2010, and 2011. EPA further notes that the removal actions relevant to the transferred property were completed in 2012, after property transfer. However, the post-removal monitoring requirements continue and are the responsibility of PEDA per the Definitive Economic Development Agreement (DEDA). *See* DEDA, Section IV, pp. 11-13.

b. Discharge Permit History

EPA notes PEDA’s description of its assumption of GE’s NPDES permitted outfalls, the elimination of Outfalls 004 and 01A, and its application for NPDES permit coverage for Outfall 001. PEDA also states that, in 2009, EPA told or in some way promised the permittee that metals and WET testing requirements were no longer required at Outfall 001 and would not be required in future permits. *See* PEDA Comments, Attachment C. Contrary to PEDA’s interpretation of the letter, the letter simply identifies that GE’s 2008 NPDES Permit discontinued composite sampling (or WET testing) at GE’s outfalls, including Outfall 001 (subsequently transferred to PEDA). Thus, EPA stated that the composite sampling requirements from the previous, 1992 GE Permit were no longer applicable for either GE or PEDA. This letter did not conclude or promise that WET testing requirements would not be required in future permits. During each permit renewal process, EPA must evaluate the data to determine appropriate limits, conditions, and monitoring requirements. Because a past permit did not require WET testing in no way bars WET testing from being required in future permits.

c. Material Changes to the PEDA Stormwater System

PEDA has performed work to redevelop the first 26 acres it acquired, and the stormwater treatment for that part of the site has improved since the acquisition. EPA is still concerned about the north side of the site, particularly the Teens Area. PEDA has hesitated to improve the stormwater situation in the Teens Area, presumably because thus far it has not been able to find a tenant for the parcel. As a result, the parcel is now the dominant source of PCBs discharging from Outfall 001.

EPA understands that PEDA may want to wait until the Teens Area is redeveloped before making the investment necessary for a new stormwater drainage system. However, as will be identified in the BMPs required in this Final

Permit, PEDDA must take interim steps to control the runoff from the Teens Area. This may consist of some combination of plugging or slip-lining existing pipes and creating new stormwater infrastructure. See Response to Comment 2.V.c and d.

d. Sources of the Stormwater that Discharges Through Outfall 001

EPA acknowledges commenter's explanation that stormwater from other sources—namely, the City of Pittsfield—is discharged through Outfall 001. However, regardless of the source of the stormwater or other water, PEDDA's discharges from Outfall 001 are subject to the Clean Water Act and require an NPDES Permit. That the "source" of the stormwater is not the PEDDA property does not obviate the need for permit coverage and, importantly, the need for permit conditions that ensure that the discharge will not cause or contribute to an excursion from Massachusetts water quality standards. EPA notes that the City of Pittsfield, in its public comment (Comment 3.H. below) committed to continue to work with PEDDA to reduce PCBs and other pollutants in the stormwater that discharges through Outfall 001. This commitment is supported by EPA and will aid PEDDA in managing municipal stormwater generated by the City.

Additionally, PEDDA suggests that the Consent Decree and associated response actions demonstrate that groundwater infiltrating into the wet basin is not "contaminated" and that this NPDES permit cannot require any additional actions to treat this groundwater. As EPA explains in several responses, *see, e.g.*, Responses to Comments 2.A.III.a and b, the conditions and limitations included in this Final Permit do not constitute response actions and do not conflict with or are otherwise limited by the Consent Decree.

Monitoring of Silver Lake shows that PCB concentrations have decreased since the cap was installed, although water column PCB concentrations remain above applicable water quality criteria. Recent sampling of the cap surface indicates that there is some deposition of PCBs on top of the cap.² While the Consent Decree precludes additional *response actions* to address such deposition, it in no way precludes regulation of NPDES permitted discharges that include PCBs. *See* Responses to Comments 2.A.III.b and 2.B.II.a.3.

Comment III. Regulatory and Legal Concerns

Comment III.a. Permit Conditions Conflict With the Consent Decree

The discharge of stormwater is adequately addressed under the Consent Decree. The Consent Decree, entered into by EPA, the Commonwealth of Massachusetts and MassDEP, GE, the City of Pittsfield, PEDDA, and other parties is a comprehensive settlement and agreement on the remediation of the contamination located at, under, emanating from or originating on the GE manufacturing plant site. The Consent Decree

² Silver Lake Area 2018 Annual Monitoring Report. <https://semspub.epa.gov/work/01/632592.pdf>

established performance standards for the cleanup that were determined to be protective of human health and environment. Section 8(b) of the Consent Decree provides that the Removal Actions (as defined in the Consent Decree), when implemented and completed in accordance with the Consent Decree and the Statement of Work (“SOW”), “are protective of human health and the environment with respect to the areas addressed by those Removal Actions.” This section also states that “except as expressly provided in this Consent Decree, no further response actions for the areas addressed by such Removal Actions are necessary to protect human health and the environment.” Further, the Consent Decree explicitly addressed known surface water discharges to Silver Lake. GE has completed the Removal Actions at the PEDAs parcels and at Silver Lake. EPA approved the cleanup and issued Certificates of Completion for the completed work. Under the terms of the Consent Decree, neither EPA nor MassDEP have the authority to impose more stringent standards or to require additional response actions.

The Consent Decree also includes EPA’s and MassDEP’s covenants not to sue and covenants not to take administrative action against GE as long as GE meets and maintains the performance standards. These covenants apply to a wide range of state and federal statutes, including the provisions governing EPA’s and the Commonwealth’s authority to regulate and enforce the regulation of stormwater discharges, including Clean Water Act, Section 309 and M.G.L. c. 21 §§26-53. (Consent Decree, Sections 161 and 166). The covenants expressly preclude the United States or the Commonwealth of Massachusetts from requiring a higher standard or additional response actions unless new information becomes available that demonstrates that the performance standards are not adequately protective. Neither EPA nor MassDEP has asserted that new information has become available that would warrant more stringent standards for, or additional treatment or remediation of the stormwater or groundwater at the site. In fact, the latest information indicates that PCBs are not discharging from Outfall 001 at the current detection limit, which is lower than EPA’s proposed compliance limit.

PEDA has similar liability protection. Under a separate Agreement and Covenant Not to Sue entered into on January 3, 2002 between the United States and PEDA, as amended by the First Amendment of Agreement and Covenant Not to Sue, dated February 21, 2012 (the “Covenant Not to Sue”), the United States agreed not to sue or take other civil or administrative action against PEDA under certain specified federal statutes, including the Clean Water Act. PEDA’s Covenant Not to Sue parallels the provisions of the Consent Decree providing the federal and state covenants not to sue and covenants not to take administrative action against GE.

PEDA’s liability protections under Massachusetts law is set forth in the PEDA’s enabling act and in M.G.L. c. 21E (“Chapter 21E”). Under Section 7 of PEDA’s enabling act, St. 1998 c. 194 §268, as amended by St. 1998, c. 486 §2, PEDA is expressly exempt from liability under Chapter 21E for releases that first occurred prior to PEDA’s acquisition of the property. PEDA is protected from liability under Chapter 21E §5C because it is an “Eligible Person” that (i) did not cause or contribute to the contamination and did not own or operate the site at the time of the release and (ii) the hazardous materials have been remediated. To the extent that the NPDES permit conditions require additional soil or groundwater remediation or any measures beyond the BMPs required by the Consent

Decree (see Section III.b, below), the permit conditions are in conflict with PEDA's federal and state liability protections. In addition, pursuant to the DEDA, GE has retained responsibility for any groundwater remediation that may be required to meet the performance standards. PEDA cannot be compelled to remediate contamination that existed on its property prior to taking title; and PEDA cannot be required to comply with permit effluent limitations if those limits would require PEDA or GE to treat or otherwise remediate the groundwater or soils beyond the performance standards set forth in the Consent Decree.

Pursuant to the terms of the Consent Decree, Covenant Not to Sue, and PEDA's liability protections under Chapter 21E, upon completion and maintenance of the remedial measures in compliance with the performance standards, neither EPA nor the MassDEP can require additional remedial measures or impose more stringent requirements on PEDA for those matters addressed in the Consent Decree. The draft NPDES permit violates the terms of the Consent Decree and the Covenant Not to Sue by imposing new effluent limits that are significantly more stringent than the performance standards set forth in the SOW. (see Section III.b)

We acknowledge that the Consent Decree and the NPDES permit are issued under two separate regulatory schemes (see Fact Sheet page 6). We also are aware that the requirements of the Consent Decree may conflict with certain elements of the NPDES regulatory mandate. However, the Consent Decree supersedes the NPDES rules and regulations to the extent addressed in the Consent Decree. Conflicts between the Consent Decree and the rules and regulations are resolved in favor of the terms of the Consent Decree that was approved by EPA and MassDEP and by the federal District Court specifically for the GE/Housatonic Site, including Silver Lake. Simply put, PEDA cannot be required to meet effluent limits and permit conditions that are more stringent than the Consent Decree performance standards.

Response to Comment III.a.

The commenter asserts that the Draft NPDES Permit is in conflict with the Consent Decree and related Covenants Not to Sue, and that EPA and MassDEP lack authority to require any standards or response actions more stringent than those imposed under the Consent Decree.

With respect to these and other related comments (Comments 2.A.III.a, 2.A.III.b, 2.B.II.b.1, and 2.B.II.b.2), EPA disagrees with the assertion that the Consent Decree limits EPA's authority under the CWA to issue an NPDES Permit to authorize PEDA's discharge.

First, as PEDA concedes in its comment, the NPDES program, on the one hand, and CERCLA and RCRA cleanup programs, on the other, are separate and independent regulatory schemes serving different statutory purposes. CWA Section 301 generally prohibits the discharge of pollutants from point sources to waters of the United States, and Section 402 establishes the NPDES program, under which permits may be issued to allow the discharge of pollutants that

otherwise would be prohibited. In contrast, CERCLA and the RCRA corrective action program govern the cleanup of hazardous substances and hazardous waste that have already been released or for which there is a threat of release. Nothing in the Consent Decree limits EPA's statutory authority to issue an NPDES permit consistent with the CWA or to impose limitations on discharges authorized by the permit. The Decree as a whole is clearly designed to use CERCLA and RCRA corrective action authorities for response actions and corrective measures under those statutes to address PCB contamination in soils, sediments and ground water in Pittsfield, the Housatonic River, Silver Lake, and Unkamet Brook. The Work specified by the Decree consists of, inter alia, performing CERCLA removal actions and performing actions under a RCRA corrective action permit leading to a CERCLA remedial action. *See also* Fact Sheet, p. 6.

With respect to Paragraph 8.b of the Consent Decree, Paragraph 8.b refers to the removal actions required by the Decree. Each CD Removal Action consists of a set of activities at a particular geographic area. EPA's action memoranda for approval of the Removal Actions (Appendices B, C, and D of the Decree), the risk-based evaluations for the protectiveness of the PCB cleanup levels contained in Appendix D, and the performance standards for the Removal Actions contained in Appendices E and F, are all clearly focused on addressing upland soil contamination, Housatonic River, Silver Lake and Unkamet Brook sediment contamination, bank soil contamination, and ground water contamination. If all of the enumerated performance standards and ARARs are attained for the removal actions, it is true that GE is not responsible for any additional *response actions* under CERCLA.

The NPDES permit, in contrast, does not address either soil, Housatonic River, Silver Lake or Unkamet Brook sediment, or ground water remediation. Rather, it places limits on commingled storm water and ground water that is discharged from Outfall 001 to Silver Lake. Nowhere does the Decree state that compliance with the Removal Action requirements obviates the need for any NPDES permit, let alone forbids continued implementation of the Clean Water Act. Had the parties intended an interpretation so at odds with the plain text of the existing statutory scheme and Congressional intent, the Decree surely would have said so explicitly. On the contrary, the Decree's provisions assume the continued applicability of NPDES permit requirements. *See, e.g.,* Appendix K (page 7) and Appendix E (Technical Attachments B and H). PEDA is simply incorrect in its interpretation of Paragraph 8.b.

Additionally, each of the Decree-related statements of work or work plans is very detailed. None has any reference to, nor reflects any intent to, supersede either the NPDES permit that was in place when the Decree was signed or a reissued permit. The NPDES permit in place at the time the Decree was signed regulated manufacturing process water, storm water, cooling water, and contaminated ground water discharges to waters of the U.S. – similar to the discharges regulated by the reissued permit, with the exception that there are no longer manufacturing process and cooling water discharges from the facility.

Moreover, the discharges covered by *this* NPDES permit are not addressed in the Decree. All other discharges that would be associated with the activities identified in the Statement of Work are outside the scope of the permit (although they may be regulated by other NPDES permits, such as the Construction General Permit for storm water discharges associated with construction site activities). Whether there is overlap between the independent requirements of the reissued NPDES permit, separately derived pursuant to the Clean Water Act, and the activities that were undertaken under the Removal Action for Silver Lake or for any other Removal Actions conducted pursuant to the Decree and their applicable Performance Standards is not dispositive here; EPA is obligated under the Clean Water Act and implementing regulations to impose limits and conditions necessary to ensure compliance with the technology- and water quality-based requirements of the Act. 40 CFR §122.4(d) (*prohibiting* issuance of NPDES permits “when the conditions of the permit do not provide for compliance with the applicable requirements of CWA, or regulations promulgated under CWA”).³

Furthermore, an NPDES permit was in existence for the GE facility at the time of the Decree entry. Nothing in the Work Plan or the final Post Removal Site Control Plan (Section 8 to the Final Completion Report) for the Silver Lake Area Removal Action or other remedial/corrective action states anything about limiting the applicability of that NPDES permit, foreclosing EPA’s authority to reissue a future, more stringent NPDES permit, or constraining the activities that may be required to comply with the terms of any such reissued permit. See EPA’s Response to Comment 2.A.III.b below for further discussion on the applicability of the Statement of Work and Performance Standards required by the Decree. In fact, neither the Statement of Work nor any response actions addressed the critical issues related to PEDAs discharge (e.g., no permanent stormwater infrastructure action items).

Turning now to the Covenants Not to Sue, the U.S. covenants Not to Sue in the Decree and later entered into with PEDA do not limit implementation of the NPDES regulatory program as applied to PEDA. For a complete discussion of the covenants, see Responses to Comments 2.B.II.b.1 and 2 below.

PEDA also points to particular aspects of state law that provide “liability protection.” To the extent that PEDA suggests that EPA’s covenants not to sue include these state laws, it is mistaken. First, these state laws are not cited or listed in paragraphs 26.a or b, or anywhere in the PEDA Agreement. EPA’s covenants are strictly limited to the provisions of law listed in the Agreement. *See* PEDA Agreement, ¶ 27. Additionally, EPA specifically notes that it reserves all rights against PEDA not listed, including any liability under state or local law. *Id.*

³ To the extent that the Permittee acknowledges that EPA can authorize PEDA’s discharge through issuance of an NPDES permit, it must be underscored that issuance of such NPDES permit must conform fully to the Act and its requirements (e.g., compliance with surface water quality standards (SWQSs)). The Permittee cannot enjoy the permit shield protections (CWA § 402(k)) and yet sidestep compliance with SWQSs. Even if EPA declined to issue this final permit, PEDA would still be subject to and could not avoid the citizen suit provisions of the CWA for unauthorized discharges. *See* 33 U.S.C. §§ 1311, 1365.

¶ 27(f). However, these provisions of state law (e.g., Chapter 21E) are not relevant here because, as stated throughout in this Response to Comments document, the NPDES Permit does not require additional remedial action, corrective action, or similar action under CERCLA or RCRA.

Comment III.b. Consent Decree Relies on BMPs to Manage Stormwater Quality

Applicable or Relevant and Appropriate Requirements (“ARARs”) included in the Consent Decree SOW establish the performance standards applicable to the site subject to the Consent Decree. The ARARs apply to a wide range of environmental rules and regulations, including the federal and state water quality criteria. EPA and MassDEP developed the ARARs to be protective of human health and the environment and the ARARs served as the performance standards for the GE cleanup at the Site. The ARARs also apply to on-going maintenance of the remedy and should serve as a basis for PEDAs’ NPDES permit conditions.

The ARARs specify that the Massachusetts Water Quality Standards are to be used to develop groundwater performance standards. The Water Quality Standards for PCBs specified in the Consent Decree are: 0.014 µg/L for freshwater aquatic life due to chronic exposure; and 0.00017 µg/L for protection of human health from consumption of water and organisms.⁴ However, the agencies recognized that GE may never be able to attain this standard and stated “If these criteria are not attained in surface waters at or adjacent to the Removal Action Areas, no further response actions to attain the criteria shall be required as part of these Removal Actions (beyond the actions described in the SOW), because EPA has determined that such further response actions are not practicable as part of these Removal Actions” [emphasis added].⁵ EPA has continued to apply 0.00017 µg/L water quality standard at the Site and has not replaced it with the more stringent standard of 0.000064 µg/L that EPA has recently proposed in the draft permit. EPA has also agreed to waive the requirement to attain the less stringent standard if the Removal Actions do not attain that standard.

The water quality standard proposed in the draft permit should be revised to be consistent with the Consent Decree. Further, even if the water quality standard is revised, PEDA should not be required to meet specified effluent limits for its stormwater discharge. This is because the ARARs limit the applicability of effluent limitations to the discharge of GE’s treated water, whereas, the ARARs expressly establish Best Management Practices as the control mechanism for stormwater discharges. (see, SOW, Technical Attachment B, Tables 2, pages 9 and 18; and Table 3.A page 4, “stormwater discharges must be controlled with BMPs”). The draft permit attempts to supersede these provisions of the Consent Decree ARARs that established BMPs as the appropriate mechanism for controlling stormwater discharge to Silver Lake.

The draft permit is also in conflict with the post-remediation site control requirements included in the SOW, Technical Attachment K, Section 1.0(e). This Technical

⁴ SOW, Technical Attachment B, Table 1, page 1

⁵ SOW, Technical Attachment B, Table 1, page 1

Attachment requires GE to conduct periodic sampling of the cap to determine if there is any deposition of PCBs on the cap from the surface water or other sources. If the deposition is traced to NPDES-permitted outfall or even an unpermitted outfall, then the deposition is permissible and no further action is required. Section 1.0(e) of Technical Attachment K provides:

“... if the periodic sampling of the cap indicates the deposition of PCBs on the surface of the cap (as opposed to migration of PCBs through the cap from the underlying sediments), GE shall evaluate, to the extent practical, whether such PCBs are attributable to sources other than erosion or surface runoff from the banks or currently known discharges of PCBs into the lake from NPDES-permitted or other outfalls. If the surface PCBs can be attributed to such other sources and such sources are located within property owned by GE, GE shall evaluate potential source control measures and shall submit a report on such evaluation, along with a recommendation for any appropriate source control measures, to EPA for review and approval. Otherwise, no further response actions shall be required to address such deposition of PCBs on the surface of the cap” [emphasis added].

The ARARs and other Technical Attachments to the SOW clarify that BMPs are the required and adequate mechanism to manage the discharge of stormwater to Silver Lake. Further, not only does the discharge from Outfall 001 qualify as a “currently known” discharge in the context of the above discussion, the current PCB concentrations from Outfall 001 are lower than the PCB concentrations in the discharges to Silver Lake that were known at the time Section 1.0(e) of Technical Attachment K was written.

Response to Comment III.b.

PEDA identifies several concerns related to perceived conflicts between the PCB limits included in the draft permit and the applicable or relevant and appropriate requirements (ARARs) and performance standards set forth in the Consent Decree and accompanying Statement of Work (SOW).

At the outset, EPA is no longer requiring numeric PCB limits in the Final Permit, and is instead requiring BMPs, as discussed in Response to Comment 2.A.I. To the extent that PEDA’s comments are based on concerns about numeric PCB limits and potential conflicts between such numeric limits and the Consent Decree, these concerns are no longer at issue in the Final Permit.

While EPA need not address PEDA’s concerns related to numeric PCB limits, EPA finds it important, nevertheless, to explain that the ARARs included in the Statement of Work and the associated performance standards do not preclude EPA’s issuance of this Final NPDES permit, nor do they limit the scope of limits/conditions established in this Permit.

First, PEDA suggests that the ARARs included in the SOW not only set forth the performance standards for the removal action at Silver Lake, but also “apply to on-going maintenance of the remedy and should serve as a basis for PEDA’s

NPDES permit conditions.” As a threshold matter, ARARs have specific definitions and application under CERCLA and the National Contingency Plan (NCP):

Applicable requirements means those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance found at a CERCLA site.

...

Relevant and appropriate requirements means those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that, while not ‘applicable’ to a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site, address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well suited to the particular site.

40 CFR § 300.5. Furthermore, these standards are utilized at CERCLA sites, and the statute and regulations require that any remedial action must attain (or waive) these standards, and further that removal actions must attain (or waive) these standards to the extent practicable, considering the exigencies of the situation. 40 CFR §§ 300.430(f)(i)(A) and 300.415(j). Taken together, these definitions and regulatory text demonstrate the specific application of ARARs to CERCLA response actions.

This fact is made even more apparent by the Consent Decree, Statement of Work (SOW), and ARARs tables appended to the SOW. The Consent Decree states that “[e]xcept for the Rest of the River Remedial Action, for *all activities undertaken pursuant to CERCLA* in this Consent Decree, Settling Defendant must also comply with any ARARs of all federal and state environmental laws, as described in Attachment B to the SOW . . .” Decree, p. 45 (emphasis added). Compliance with ARARs is limited to CERCLA response actions and does not extend to other actions or activities governed by other environmental statutes (e.g., CWA).

Moreover, Technical Attachment B in the SOW, entitled, *Applicable or Relevant and Appropriate Requirements*, underscores the limited applicability of ARARs. In Table 1, to which PEDA explicitly refers in its comment, the CWA Ambient Water Quality Criteria and State water quality standards are cited as ARARs. However, the description makes clear that the criteria apply to CERCLA response actions that are part of the Removal Actions required under the Consent Decree. The language that PEDA itself quotes confirms this:

If these criteria are not attained in surface waters at or adjacent to the Removal Action Areas, no further *response actions* to attain the criteria shall be required *as part of these Removal Actions* (beyond the actions described in the SOW), because EPA has determined that such *further response actions* are not practicable *as part of these Removal Actions*.

SOW, Appendix E, Technical Attach. B, Table 1, p. 1 (emphasis added). Essentially, the parties to the Decree, including EPA, determined that the *Removal Actions* need not attain these water quality standard ARARs due to technical impracticability. This language simply governs the extent to which additional response actions as part of the Removal Actions would be required, and in no way waives EPA's obligations in implementing the NPDES program through this or any other CWA permit. Nor does any other language from the ARARs tables or SOW indicate that authorization of PEDA's discharge under the CWA is limited by the ARARs listed as applicable to Removal Actions conducted under CERCLA.

Second, PEDA claims, on a related note, that if numeric limits remain, EPA's permit should be revised to include the numeric water quality standard for PCBs that was listed as an ARAR in the Consent Decree. For the reasons just stated, ARARs apply to response actions taken as part of CERCLA Removal Actions under the Consent Decree. They do not extend to separate CWA implementation. Moreover, the CWA does not give EPA authority to permit a discharge that does not meet state water quality standards. 33 U.S.C. § 1311(b)(1)(C). Even EPA wanted to grant PEDA's request to include a less stringent water quality standard for PCBs equal to the standard applied under the Consent Decree, it simply could not. Finally, again, an ARAR requirement or waiver of attainment of an ARAR under CERCLA does not constitute a waiver of CWA Section 301(b)(1)(C), nor does it constitute a variance from water quality criteria or designated uses.

Third, PEDA states that no specific effluent limit should be applied to its stormwater because the ARARs require BMPs for stormwater discharges, and in doing so, "limit the applicability of effluent limitations to the discharge of GE's treated water." Nothing in the Decree even refers to ongoing storm water discharges from the Site; it only references storm water associated with construction activities required by the Decree, which discharges would be subject to EPA's Construction General Permit for storm water associated with construction site activities, not to this individual permit. *See* SOW, Technical Attach. B, Table 2.A, p. 3 ("Discharges of stormwater ***associated with construction activities*** are required to implement measures, including best management practices, to control pollutants in stormwater discharges during and after construction activities.") (emphasis added); *see also id.* at Table 2.A, pp. 9, 18.

In addition, the Permit no longer includes numeric PCB limitations on which PEDA's arguments are focused, and the BMP approach included in the Final

Permit is wholly consistent with EPA's policies and practices with respect to NPDES permits, including the requirement to undertake best management practices ("BMPs"). The BMPs are therefore not an impermissible attempt to expand the scope of the "response actions" agreed to under the Decree. While the BMPs can be expected to result in the reduction of PCBs in discharges at Outfall 001, they are far afield from the soil and sediment removal actions required by the Decree.

Fourth, PEDA misinterprets the post-removal site control requirements included in the SOW. These requirements do not limit EPA's authority to issue or renew NPDES permits. Rather, they only place a limit on the requirement of GE being compelled to conduct additional *response actions* as a result of other, non-GE sources of PCB redeposition in Silver Lake. SOW, Section 2.6.2(9), p. 79. *See also* SOW, Technical Attach. K. EPA's issuance of the final NPDES permit is simply not a "response action" to address PCBs that have been redeposited on the covered/restored sediments. The permit authorizes storm water and groundwater discharges to Silver Lake subject to certain limitations. Such limitations are based on technology and water quality requirements of the CWA. They are not in any way premised on whether or not PCBs have been redeposited on restored or covered River sediments.

There is simply no conflict between the requirements of the reissued NPDES permit and the activities that were undertaken under the Removal Action for Silver Lake and its Performance Standards. Furthermore, as PEDA notes, an NPDES permit was "known" and in existence for this discharge at the time of the Decree entry. Nothing in the Work Plan or Post Removal Site Control Plan for this Removal Action suggests anything about limiting the applicability of that NPDES permit, foreclosing EPA's authority to reissue a future, more stringent NPDES permit, or constraining the activities that may be required to comply with the terms of any such reissued permit.

Finally, EPA's Final Permit demonstrates that EPA agrees that, in this particular circumstance, BMPs are the appropriate and "adequate mechanism to manage the discharge" at Outfall 001. None of the BMPs are limited by or in conflict with the ARARs or performance standards established under the Consent Decree for all the reasons stated above.

Comment III.c. Groundwater is Remediated, Not an Illicit Discharge

In a January 13, 2015 letter from the City of Pittsfield and PEDA to EPA, the City and Pittsfield set forth some alternatives for NPDES permit compliance. One option was to transfer responsibility for permit compliance to the City. The Fact Sheet responded, identifying "contaminated groundwater" as a source of PCBs found in the Outfall 001 discharge. Under the proposed permit, if PEDA maintains responsibility for permit compliance, then the groundwater would be subject to new, more stringent effluent limits which cannot be met. If permit compliance is transferred to the City, then according to the Fact Sheet, the groundwater is deemed to be contaminated and associated with an

industrial activity and would be an illicit discharge under the City's MS4 permit.⁶ This characterization is not correct. GE's manufacturing ceased long ago at the PEDA property, there are no current industrial activities at the property and the groundwater has been remediated to the performance standards. EPA and MassDEP reviewed GE's Final Completion Reports for each area of the property that discharges stormwater through Outfall 001. Both EPA and MassDEP determined that the groundwater complies with the performance standards of the Consent Decree. The groundwater is remediated, not "contaminated." In fact, it is permissible for the groundwater to migrate across the Site and into Silver Lake and into the Housatonic River. But when this same remediated groundwater enters the water quality basin on the PEDA property and commingles with stormwater and discharges through Outfall 001, it is deemed, under the draft permit, to be "contaminated" and subject to effluent limits, and would be an illicit discharge under the City's MS4 permit. PEDA disagrees with this determination.

The groundwater has been remediated in accordance with the performance standards and the agencies have concurred that the groundwater is protective of human health and the environment. In fact, the SOW, Technical Attachment B, Table 1 provides the specific ARARs applicable to the Site (see Exhibit A). The first two items on Table 1 address the federal and state water quality criteria applicable to the groundwater remediation and apply the Massachusetts water quality standards, but qualified these requirements by stating "if these criteria are not attained in surface waters at or adjacent to Removal Action Areas, no further response actions to attain the criteria shall be required as part of these Removal Actions . . . , because EPA has determined that such further response actions are not practicable as part of these Removal Actions." These ARARs make it clear that if the water quality criteria are not attained after completion of the cleanup, then the water quality ARARs would be waived.

Discharge of this groundwater from the Site has been determined to be acceptable under the water quality standards of the Consent Decree. Groundwater should not be subject to effluent limits nor should it be deemed to be an illicit discharge. Although no further actions are necessary, PEDA understands the importance of taking reasonable steps towards improving the quality of Silver Lake. It is PEDA's firm belief that BMPs, as described in the Consent Decree and summarized in Section V, are the appropriate control measure for management of the stormwater discharge into Silver Lake.

Response to Comment III.c.

PEDA outlines several concerns related to groundwater that commingles with stormwater in the water quality basin. First, with respect to referring to "contaminated groundwater," EPA's Multi-Sector General Permit (MSGP) authorizes "uncontaminated groundwater" as an allowable non-stormwater discharge. The MSGP further defines an "uncontaminated discharge" as a discharge that does not cause or contribute to an exceedance of applicable water quality standards. As EPA demonstrated in the fact sheet, discharges of PCBs cause, or have the reasonable potential to cause or contribute to an excursion

⁶ Fact sheet, page 5.

above the applicable surface water quality standards of Class B, Silver Lake. PCBs have been identified in ground water at the site.

With respect to the City of Pittsfield's municipal separate storm sewer system (MS4) discharges, EPA notes that this NPDES permit has not been transferred to the City, and the City specifically notes that it is not proceeding with such a transfer. See Comment 3.F. below. Therefore, suggestions about the implications (e.g., illicit discharges) of transferring this permit to the City are not relevant and merely speculative at this time. Regardless, an MS4 permit allows discharges of uncontaminated ground water infiltration (as defined at 40 CFR § 35.2005(20)), that is, does not allow discharges of ground water that contains pollutants.

Next, PEDA suggests that any groundwater commingled with stormwater in the water quality basin is not "contaminated" and should not be subject to the NPDES program because it has been remediated in accordance with the CERCLA Consent Decree. As a preliminary note, when groundwater (commingled with other sources or alone) that contains pollutants, such as PCBs, discharges from a point source into a surface water, it becomes subject to the requirements of the Clean Water Act, including attainment of surface water quality and technology standards, and may not be discharged without an NPDES permit. 33 U.S.C. §§ 1311, 1342(a); 40 CFR §§ 122.4(a), (d).

In fact, discharges of groundwater to surface water are one of the largest discharge types authorized by NPDES permits in Region 1. EPA's Remediation General Permit governs the discharge of groundwater and certain surface waters that contain pollutants at concentrations that exceed surface water quality criteria. EPA has authorized discharges from over 950 sites in Massachusetts since 2005 from contaminated or formerly contaminated sites. While formerly contaminated sites have achieved closure relative to clean up standards under the programs regulating contaminated site remediation (e.g., CERCLA, Massachusetts Contingency Plan), contaminant levels remain that, if removed from the site via discharges to a Water of the U.S., exceed the standards promulgated under the Clean Water Act. Stormwater at the site has the potential to come into contact with contamination in soil or groundwater from historical activities, and groundwater has the potential to infiltrate the site conveyance system and monitoring data affirm that these concentrations exceed applicable Massachusetts surface water quality criteria.

Though groundwater at the former GE site has been remediated pursuant to CERCLA and achieved the performance standards identified in the Consent Decree, this fact does not obviate the need for an NPDES permit to authorize a discharge of pollutants from Outfall 001. The goals of the abovementioned response action and the applicability of the corresponding ARARs and performance standards are distinct from the goals and requirements under the CWA. In fact, the ARARs language cited by PEDA above is limited to the removal actions under the Decree and has no bearing on EPA's authority to issue this Permit. Ultimately, nothing in the Consent Decree or accompanying SOW

would immunize PEDA from the NPDES program requirements. For a complete discussion of the SOW and ARARs, see Response to Comment 2.A.III.b above.

Regarding a BMP approach to stormwater management, EPA agrees that BMPs are appropriate with respect to PCBs. For a complete discussion of EPA's decision to include a BMP approach in lieu of numeric limits for PCBs in the Final Permit, see Responses to Comments 2.A.V.a-b below.

Comment III.d. The Permit Applies Incorrect Surface Water Quality Standards

PEDA questions the classification of Silver Lake as a Class B waterbody. The Fact Sheet states that Silver Lake is a Class B warm water fishery based upon a default designation because it has not been otherwise designated.⁷ We understand that the regulations pursuant to the Clean Water Act require permit conditions that will be consistent with the water quality standards established under CWA Section 303.⁸ However, Class B is reserved for water bodies that “are designated as a habitat for fish, other aquatic life, and wildlife, including for their reproduction, migration, growth and other critical functions, and for primary and secondary contact recreation. Where designated in 314 CMR 4.06, they shall be suitable as a source of public water supply with appropriate treatment (“Treated Water Supply”). Class B waters shall be suitable for irrigation and other agricultural uses and for compatible industrial cooling and process uses. These waters shall have consistently good aesthetic value.”⁹ Silver Lake does not meet these standards and it unlikely to meet these standards in the foreseeable future, regardless of whether numeric effluent limits are imposed on the Outfall 001 discharge.

Silver Lake has been contaminated since the early 1900s. GE's Response Actions are intended to remediate the lake to be protective of human health and the environment, subject to the performance standards of the Consent Decree. The performance standards do not require attainment of a Class B for Silver Lake. The remediation did not intend to make Silver Lake swimmable, or suitable for irrigation, or for public water supply with appropriate treatment. The SOW expressly acknowledged that even after the cleanup was complete, the fish would not be safe for consumption and GE is required to maintain signs around the lake warning the public not to eat the fish (see Exhibit D). Class B water quality does not apply to Silver Lake.

MassDEP's Water Quality classification is based, in part, on EPA's National Recommended Water Quality Criteria: 2002, EPA 822- R-02-047, November 2002 (314 CMR 4/05(5)(e)). That document expressly states that the “Section 304(a) criteria do not reflect consideration of economic impacts or the technological feasibility of meeting the chemical concentrations in ambient water,”¹⁰ and that the recommendations are not

⁷ Fact Sheet, page 8.

⁸ 40 CFR §122.44

⁹ 314 CMR 4.05(3)(b)

¹⁰ National Recommended Water Quality Criteria: 2002, EPA 822- R-02-047, November 2002, page 1

legally binding requirements and “might not apply to a particular situation based upon the circumstances.”¹¹

MassDEP has the authority to vary from the National Recommended Water Quality Criteria. Pursuant to 314 CMR 4.03(4), MassDEP is authorized to “remove a national goal use that is not an existing use, designate a segment as partial use, or grant a variance to authorize a discharge, provided the applicant demonstrates that . . . (c) Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place.”

There is nothing in the Consent Decree that requires GE to attain Class B status in Silver Lake. Both EPA and MassDEP have determined that the Response Actions are complete and are adequately protection without attaining Class B. As such, PEDA’s NPDES permit should not be based on Class B. PEDA should not be held to this unattainable standard, which would require additional remediation in conflict with the liability protections of the Consent Decree, the Covenant Not to Sue and PEDA’s statutory liability protections under state law.

As explained above, PEDA firmly believes that the permitting approach for Outfall 001 should be based on BMPs, not on numeric effluent limits. Nevertheless, in the event that EPA proceeds with the currently proposed permit structure, which is based on effluent limits, we are commenting in this section on several technical concerns regarding the proposed effluent limits. Despite its highly limited resources, PEDA has already implemented costly BMPs for the Outfall 001 discharge, which after an extended adjustment period appear to be performing effectively. Each of the effluent characteristics listed in the Draft Permit, Part I.A., is discussed below.

Response to Comment III.d.

PEDA presents a number of concerns related to the classification of Silver Lake as a Class B waterbody.

The CWA requires that each state develop water quality standards (WQSs) for all water bodies within the State. *See* CWA § 303 and 40 CFR §§ 131.10-12. Generally, WQSs consist of four parts: 1) beneficial designated use or uses for a water body or a segment of a water body; 2) numeric or narrative water quality criteria sufficient to protect the assigned designated use(s); 3) antidegradation requirements to ensure that once a use is attained it will not be degraded and to protect high quality and National resource waters; and 4) general policies. *See* CWA § 303(c)(2)(A) and 40 CFR § 131.12. The applicable State surface WQSs (SWQSs) can be found in Title 314 of the Code of Massachusetts Regulations, Section 4 (314 CMR 4.00).

PEDA questions Silver Lake’s status as a Class B waterbody due to its assessment that the waterbody does not currently meet the standards necessary to attain Class

¹¹ Id. at page 1.

B designated uses. Silver Lake itself is a small waterbody, and a direct tributary to the East Branch of the Housatonic River (Segment MA21-02) defined in 314 C.M.R. 4.06 as a Class B waterbody.

Class B is the Basin Classification that also applies to Silver Lake pursuant to 314 CMR 4.06(4). The designated uses defined for any Class B water body are as follows:

These waters are designated as a habitat for fish, other aquatic life, and wildlife, including for their reproduction, migration, growth and other critical functions, and for primary and secondary contact recreation. Where designated in 314 CMR 4.06, they shall be suitable as a source of public water supply with appropriate treatment (“Treated Water Supply”). Class B waters shall be suitable for irrigation and other agricultural uses and for compatible industrial cooling and process uses. These waters shall have consistently good aesthetic value.

310 CMR 4.05(3)(b). Designated uses are not necessarily uses currently being attained; rather, they are an expression of goals for the water. *See* 40 CFR 131.3(f) (“*Designated uses* are those uses specified in water quality standards for each water body or segment whether or not they are being attained.”). Designated uses “are deemed attainable if they can be achieved by the imposition of effluent limits required under sections 301(b) and 306 of the Act and cost-effective and reasonable best management practices for the nonpoint source control.” 40 CFR § 131.10(g).

The comment further describes methods by which MassDEP may change the designated use of Silver Lake to allow for elevated PCB concentrations under state law. Although the Commonwealth of Massachusetts may have the authority to issue water quality variances (“WQV”) and conduct Use Attainability Analyses (“UAA”), it has done neither for Silver Lake. Moreover, a federal NPDES permit proceeding is not the appropriate forum for requesting a variance or UAA from MassDEP pursuant to state law. *See* Response to Comment 2.I.

Even if the state were to modify the designated uses of Silver Lake, SWQSS require the application of effluent limitations to protect designated uses and downstream and adjacent segments. *See* 314 CMR 4.03(1)(a). Thus, the downstream segment of the Housatonic (East Branch Housatonic) is Class B and its designated uses must also be protected regardless of whether Silver Lake is designated as Class B or not.

The commenter further suggests that the Final Permit should not be based on Massachusetts’ Class B water classification of Silver Lake because the actions and performance standards required pursuant to the Consent Decree did not require attainment of Class B for Silver Lake. However, the finding under the Consent Decree that the remedy ensures protection of human health and the

environment does not negate the CWA mandates, including ensuring compliance with state water quality standards and protecting designated uses. Indeed, CERCLA's distinct goals and statutory regime do not necessarily require treatment and elimination of contamination; in certain circumstances, such as those existing at the GE site, preventing human *exposure* to contamination may be sufficient to achieve CERCLA's goals of protection of human health. That this type of remedy may be sufficient under CERCLA does not mean that the statutory mandates of the CWA are also met. See also Response to Comment 2.A.III.b above for a complete discussion of the applicability of the SOW and performance standards.

As the commenter requests, EPA has determined that application of BMPs is an appropriate method of ensuring the requirements of the Clean Water Act are satisfied for PCBs present in the discharges. See Response to Comment 2.A.V.a.

Comment IV. Technical and Financial Concerns with Proposed Effluent Limits

Comment IV.a. Technical Concerns With the Proposed Effluent Limits

As explained above, PEDA firmly believes that the permitting approach for Outfall 001 should be based on BMPs, not on numeric effluent limits. Nevertheless, in the event that EPA proceeds with the currently proposed permit structure, which is based on effluent limits, we are commenting in this section on several technical concerns regarding the proposed effluent limits. Despite its highly limited resources, PEDA has already implemented costly BMPs for the Outfall 001 discharge, which after an extended adjustment period appear to be performing effectively. Each of the effluent characteristics listed in the Draft Permit, Part I.A., is discussed below.

(i) Flow

We concur with the proposed discharge limitations, based on the rationale presented in the Fact Sheet Section VI.(a), but are concerned about potential interpretation of the requirement for continuous monitoring. The equipment currently installed for flow rate monitoring provides continuous monitoring and it is adequate for measuring flow rates during most storm events when flow rates are elevated, but has limitations for measuring lower flow rates that may occur between larger storm events and limitations for winter use.

The current PEDA flow monitoring equipment uses an ultrasonic Doppler probe. During low flow and high wind conditions, the water surface movement created by the wind can be detected as flow, giving a false high reading. Freezing conditions can damage the probe, so it must be removed prior to freezing to prevent damage. Additionally, the apparent slight settlement of the northern side of the culvert creates the potential for error during low flow conditions. These issues are not significant with regard to measurement of flow rates in larger storms, the events of greatest concern with regard to this outfall, but they may be of significance with respect to continuous monitoring even during lower flow rates. PEDA has noted in its discharge monitoring reports (DMRs) when the flow monitoring equipment was not in operation, but has not

considered these situations to be permit violations. PEDDA specifically asks for recognition that the current flow monitoring equipment provides acceptable data under the draft permit conditions and that conditions such as those described above during which the current flow monitoring equipment may not be able to provide flow data will not be considered permit violations.

(ii) Oil and Grease

The draft permit proposes a weekly monitoring frequency for oil and grease (“O&G”), increased from monthly monitoring required by PEDDA’s current permit. The basis for this change stated in Fact Sheet Section VI.(d) is that there have been four exceedances of the current permit limits during the period January 2010 through December 2013. Fact Sheet Appendix A shows the monitoring records used by the EPA in their evaluation. We believe this increased monitoring frequency is not warranted, for the following reasons.

One of the four claimed exceedances was based on total mass discharged for the June 2013 monitoring event. As acknowledged by the proposed permit conditions, a mass discharge limit is not an appropriate criterion for the current situation of the discharge. Since the current situation of the discharge is the same as when that mass permit limit exceedance occurred, it should not be counted as an exceedance when evaluating the potential need for increased monitoring frequency. Further, that mass discharge exceedance was related to the same monitoring/flow event as one of the concentration exceedances. Claiming both the mass discharge and concentration exceedance as separate exceedances may be technically correct in terms of the permit conditions, but it mischaracterizes the number of discharge events during which there were permit limit exceedances. The June 2013 monitoring event should therefore be counted as only one exceedance for O&G.

Another of the four claimed exceedances, during the July 2010 monitoring event, appears to be a data entry error. Our records indicate that the O&G sample for that monitoring event was lost to breakage during shipping.

Given the above considerations, the correct count should be only two exceedances of the proposed O&G criterion in the 41 O&G monitoring events shown in Fact Sheet Appendix A. Additionally, there have been no permit limit exceedances from January 2014 through April 2015, expanding the number of monitoring events during which there were only two exceedances from 41 to 55 monitoring events.

The July 2011 and June 2013 exceedances both occurred during summer months, the peak season for roadway repair. Since there are no known sources of O&G on the PEDDA property, a likely source for the excess O&G in those runoff events is runoff from freshly laid or repaired asphalt in the 91 acres of Pittsfield outside the PEDDA property that discharge to Silver Lake through Outfall 001, a source over which PEDDA has no control. The substantial difference between the rest of the concentrations (ranging from 0-5 mg/L) and the exceedances (25 and 40 mg/L) clearly suggests the presence on those days of a source that is not usually present. Increasing the monitoring frequency will not,

however, help to determine the source without substantial and burdensome additional effort to monitor activities throughout the contributing drainage area at all times. Simply investigating activities on the day of an exceedance would not be adequate since we would also need to know whether similar activities were occurring on days without exceedances. This would create an enormous burden of extra work related to a water quality parameter that is shown by the available data to be nearly always in compliance with the proposed permit limits.

The July 2011 exceedance occurred during extremely low flow (0.001 million gallons per day (“MGD”)), while the June 2013 exceedance occurred at a much higher flow rate of 2.09 MGD, indicating a lack of correlation with flow rate. We also note that the maximum monthly flow rate in June 2013 was 2.4 MGD, not 2.04 MGD as listed in the EPA Fact Sheet Appendix A table.

PEDA proposes, therefore, that in the event that EPA does decide to impose numeric effluent limits, rather than a BMP-based approach to permitting the discharge from Outfall 001, the monitoring frequency for O&G should be at most monthly, and possibly quarterly, but not weekly.

(iii) Total Suspended Solids (TSS)

The draft proposed permit limits for TSS, as described in EPA Fact Sheet Section VI.(b), are based on a statistical approach for determining the permit limits needed to achieve a 1% chance of the discharge concentration exceeding the maximum daily limit (MDL) and a 5% chance of exceeding the average monthly limit (AML). Weekly, rather than monthly as in the current permit, monitoring is proposed. EPA has based this analysis on TSS concentration data from May 2011 through May 2014, a total of 30 monitoring events. EPA also used a benchmark concentration taken from the EPA Multi-Sector General Permit (MSGP) for industrial storm water discharges¹² and an assumed 80% TSS removal rate in the water quality basin. We believe this analysis is fundamental flawed, for several reasons including the following.

First, EPA mischaracterizes the TSS monitoring data only by range, stated as “2.06 mg/L to 377 mg/L from May 2011 through May 2014(number of samples(n) = 30.” Review of the complete data record from January 2010 through April 2015, a period during which there were 53 samples, shows that the maximum value of 377 mg/L is substantially higher than the second highest value of 98 mg/L. Simply stating the full range, without acknowledging that the highest value is substantially higher than the second highest value does not provide sufficient characterization of the data.

Second, although EPA properly acknowledges through the elimination of mass discharge limits in the proposed permit conditions that mass discharge limits are not

¹² EPA Fact Sheet Section VI.b refers to EPA’s MSGP without providing a specific citation. Since the 2008 MSGP is the currently effective MSGP (accessed 1 June 2015), we assume that EPA is referring to the 2008 MSGP. In our evaluation, however, we have considered the provisions of both the 2008 MSGP and the proposed 2013 MSGP.

appropriate for the current situation of the discharge from Outfall 001, EPA does not explicitly acknowledge this in its discussion of the mass discharge limit exceedance under the current permit. As part of EPA's discussion of the mass discharge limit exceedance for the current permit, EPA should explicitly acknowledge that the mass discharge limits are not appropriate for the current situation of the discharge and are therefore not an appropriate measure of discharge quality.

Third, EPA misapplies the benchmark value from the MSGP. The EPA Fact Sheet properly states that under the MSGP, TSS in storm water runoff is to be controlled using BMPs (see 2008 MSGP Section 2.1.2.6) and that values above a benchmark indicate the need for adjustments (see 2008 MSGP Sections 3.2 and 6). Both the currently applicable 2008 MSGP (Sections 3.2 and 6) and the proposed 2013 MSGP (Section 4.1) state that the possible need for corrective action is triggered when the average of four quarterly samples exceeds the benchmark value. If the average is below the benchmark, then the treatment system is considered to be functioning effectively. Further, both the 2008 MSGP (Section 6.2.1.2) and 2013 MSGP (Section 6.2.1.2) states that "After collection of 4 quarterly samples, if the average of the 4 monitoring values for any parameter does not exceed the benchmark, you have fulfilled your monitoring requirements for the permit term." Under this guidance, and using the benchmark value of 100 mg/L stated in the EPA Fact Sheet, PEDDA would long ago have fulfilled its monitoring requirements for TSS. The long term average TSS concentration from over five years of monitoring has been 27 mg/L, no annual average has been above about a fourth of the benchmark, and only one of the 53 samples collected during that period has exceeded the benchmark value. Under the procedure in the MSGP, the draft permit for PEDDA should have been proposing reduced TSS monitoring requirements, yet the draft permit proposes an increase in the monitoring frequency and proposes permit limits well below the benchmark value, an issue discussed further below. The available monitoring data show that the BMPs currently in place are functioning adequately to control TSS and therefore no additional controls are needed and increasing the monitoring frequency is not warranted.

Fourth, EPA applies the benchmark value to the water quality basin forebay influent, rather than the effluent. EPA uses an 80-percent removal efficiency for the combined forebay and water quality basin system to compute a target long term average (LTA) at the outfall of 20 mg/L. This contrasts with the MSGP permit approach in which the benchmark value is itself an LTA value applied at the outlet to the receiving water and used as a value with which long term (annual) averages are compared. In treating the water quality basin like a receiving water, EPA has effectively reduced the appropriate permit limit by a factor of five, appearing to disregard the water quality treatment intent and function of the basin. The effectiveness of the current BMPs should be judged by the Outfall 001 discharge, not the water quality basin forebay influent.

Fifth, the EPA Fact Sheet approach to setting a permit limit is based on procedures developed for treatment processes with variable input and/or treatment performance, creating a variable quality discharge, but are not appropriate for stormwater. The procedure EPA used is a statistically based procedure that estimates the maximum daily and average monthly discharge concentrations that are associated with

some small probability of exceeding the discharge limit at any time, including between monitoring events. The procedure was developed specifically for ongoing discharges in situations where a waste load allocation for the receiving water has been developed and for dealing with limited amounts of data. In essence, if the desired long term average (LTA) is X, this statistical procedure determines that the maximum daily value should be no higher than a multiple of X, based on an assumed distribution of variability for the values. The same concept is applied to average monthly values. However, the MSGP, EPA's fundamental guidance for managing stormwater discharge from industrial sites, has a different procedure for evaluating storm water discharges against the benchmark values. There is no valid reason for applying the procedure that EPA applied to develop the TSS discharge limitations, rather than the procedure from the MSGP.

Sixth, EPA cites to MSGP Industrial Sector AD as the source for the 100 mg/L benchmark value. We presume that EPA is citing to SubPart AD of Part 8 of the MSGP, the Sector-Specific Requirements for Industrial Activity. Although the MSGP uses a benchmark of 100 mg/L TSS for several other Industrial Sectors, we have not been able to find reference to a benchmark value for TSS in SubPart AD of Part 8 of the MSGP.

Finally, the reference to the draft permit Section IV(k) in the last paragraph of Fact Sheet Section VI.(b) is not clear. We have not been able to find Section IV(k) in either the Fact Sheet or the draft permit.

Although PEDA disagrees with EPA's decision to treat the William Stanley Business Park as an industrial site for discharge permitting purposes, PEDA believes that the EPA MSGP provides a technically suitable and reasonable framework for managing stormwater. PEDA specifically proposes that the monitoring and control approach described in the MSGP be applied at the Outfall 001 discharge, except that the monitoring frequency should be monthly, rather than quarterly as provided in the MSGP approach.

(iv) pH

The draft permit proposes an allowable pH range of 6.5-8.3 standard units, reduced from the range of 6.0-9.0 in the current permit. PEDA monitors pH weekly, when there is flow, and has been outside the currently allowable range, always on the high side, only three times over the period of record. The pH has been above the upper limit proposed in the draft permit numerous times. For just the period between January 2014 and April 2015, there have been 11 instances when the measured pH was above 8.3, though none when the measured pH was above 9.0. Values above 8.3 were recorded in 2014 for March (1), April (3), May (2), July (2), August (1), October (1) and November (1). There is thus no apparent seasonality to pH values above 8.3.

The draft fact sheet speculates that contact with concrete or demolition debris may be responsible for the elevated pH values, though site-specific data cast some doubt on this explanation. If contact with concrete or demolition debris along the flow path were responsible for the elevated pH values, it would be reasonable to expect that pH has some correlation with flow rate, since some combination of contact time and the

proportion of the total flow rate in contact with the materials would be expected to influence the pH. There does not, however, appear to be a correlation between elevated pH and flow, since similar elevated pH values have been recorded at both low flows (0.001 mgd flow with pH of 8.35 in May 2014) and high flows (0.36 mgd flow rate with pH of 8.31 in August 2014), suggesting that contact with materials along the flow path may not be the explanation. If contact with concrete and demolition debris is the cause of the elevated pH, however, it is possible that as redevelopment proceeds, the instances of elevated pH will decrease.

Revision of the upper pH limit to 8.3 will most likely result in a substantially increased number of permit limit exceedances. At this time PEDA does not expect to be able to meet the draft permit criteria. PEDA specifically requests that the current pH limits of 6.5-9.0 remain in effect.

(v) Escherichia coli

EPA Fact Sheet, Section VI.(e) discusses the possible presence of *Escherichia coli* (E. coli) in the Outfall 001 discharge due to the presence of animals in the drainage area and possible illicit sewer connections to the storm water system that drains to Outfall 001. To the extent that any such sources exist (other than minimal wildlife presence), they would not be on PEDA property, but rather on the 91 acres of Pittsfield outside the PEDA property that drains to Outfall 001. As such, those sources should be managed through provisions in the Pittsfield municipal separate storm sewer system (MS4) permit, not through monitoring requirement imposed on PEDA. PEDA specifically proposes that the E. coli monitoring requirement be removed from the Outfall 001 permit.

(vi) Total Phosphorus

EPA Fact Sheet Section VI.(f) discusses the possible presence of phosphorus in the Outfall 001 discharge due to the presence of geese or other animals in the drainage area and possible fertilizer use in the area that drains to Outfall 001. To the extent that any such sources exist, they would not be on PEDA property (except for minor presence of geese), but rather on the 91 acres of Pittsfield outside the PEDA property that drains to Outfall 001. As such, those sources should be managed through provisions in the Pittsfield MS4 permit, not through monitoring requirement imposed on PEDA. PEDA specifically proposes that the phosphorus monitoring requirement be removed from the Outfall 001 permit.

(vii) Total Nitrogen

EPA Fact Sheet Section VI.(g) discusses the possible presence of nitrogen in the Outfall 001 discharge due to possible fertilizer use in the area that drains to Outfall 001. Since PEDA does not use fertilizers on lawn areas, any such sources would not be on PEDA property, but rather on the 91 acres of Pittsfield outside the PEDA property that drains to Outfall 001. As such, those sources should be managed through provisions in the Pittsfield MS4 permit, not through monitoring requirement imposed on PEDA.

PEDA specifically proposes that the nitrogen monitoring requirement be removed from the Outfall 001 permit.

(viii) PCBs

As described earlier, PEDA does not believe that EPA has legitimate authority to impose requirement on PCBs in Outfall 001 beyond the requirements addressed in the Consent Decree, and thus that the technical analysis of PCB concentrations and reasonable potential to pollute presented in Fact Sheet Section VI.(h) are not legitimate evaluations of the Outfall 001 discharge. Further, Fact Sheet Section VI.(h) also includes many statements about "contaminated" groundwater and remaining PCB "contamination" in other media. For the reasons discussed earlier, we do not believe it is appropriate to use the term "contamination" to describe the presence of PCBs in environmental media that have been remediated to the extent required under the terms of the Consent Decree. We are nevertheless, without negating the fundamental PEDA positions on the lack of EPA authority to impose requirements beyond those in the Consent Decree, providing comments on the discussion in Fact Sheet Section VI.(h). We present comments in this Section on the proposed PCB effluent limit and on the PCB concentration data analysis. EPA also invited comments on using a BMP approach to achieving adequate water quality, including consideration of compliance schedules for implementing and evaluating BMPs. PEDA provides such comment in Section V.

PEDA is aware that EPA does sometimes use a value such as the practical quantitation limit (PQL) as a compliance limit in situations where the effluent limit is lower than the concentration that can be reliably detected with current instrumentation. In this situation, however, such an approach could have a chilling effect on the future development potential for the WSBP. This approach to setting a compliance limit effectively leaves open the possibility that future compliance limits will be lower only because improved detection methods have been developed. This creates substantial uncertainty regarding the possibility that substantial additional costs related to PCB migration control could be required in the future. Such uncertainty makes it difficult to enter into business agreements in which tenants bear proportionate shares of the environmental quality management costs. PEDA accepted the land from GE based on the reasonable expectation that issues related to PCBs had been addressed to the satisfaction of EPA and MassDEP. This proposed permit would reopen matters that had been settled, creating substantial uncertainty about future costs, substantially increasing the difficulty of securing new development at the WSBP. New development however, as discussed in Section V, would bring enhanced BMPs that would further reduce the discharge of PCBs to Silver Lake. The provisions of this draft permit may, therefore, in the long term have the opposite of the intended impact and actually make it more difficult to reduce PCB discharges to Silver Lake.

EPA's analysis of the PCB concentration data is fundamentally flawed because it does not take into consideration the declining trend of concentrations and in particular does not include recent data that demonstrate the potential effectiveness of BMPs. Exhibit F provides two graphs of PCB concentration data. One is a graph of the annual average PCB concentrations and the other is a graph of the monitoring data from January 2014 through April 2015, data that is not considered in the EPA evaluation. The

reasonable potential analysis as conducted by EPA (Fact Sheet Appendix E) is based on the concept of a stationary population. That is, the statistics that characterize the population of data are not changing over time. The graph of the annual averages in Exhibit F shows that the fundamental characteristics of the PCB concentrations are changing over time, they are declining. In fact, as shown in the second graph in Exhibit F, PCBs have not been detected above a concentration of 0.0169 µg/L from July 2014 through April 2015, the most recent Discharge Monitoring Report data available. Exhibit G provides a statement from Pace Analytical regarding the laboratory method detection limit (“MDL”) of 0.0169 µg/L for the PCB analysis of Outfall 001 samples. This MDL is below the proposed compliance limit of 0.022 µg/L. These data demonstrate that BMPs can provide adequate water quality protection and that numeric effluent limits for PCBs are unnecessary at Outfall 001. Further, implementation of additional BMPs as discussed in Section V would be expected to further reduce PCB concentrations in the Outfall 001 discharge.

PEDA specifically requests that PCB effluent limits be removed from the permit for Outfall 001 and that a BMP approach be used to manage PCB concentrations in the Outfall 001 discharge.

(ix) Whole Effluent Toxicity and Metals

EPA Fact Sheet Sections VI.(i) and VI.(j) discuss the draft permit proposal for adding whole effluent toxicity (“WET”) and metals testing to the Outfall 001 effluent limits. The essential rationale for adding these requirements is lack of information. PEDA believes that addition of these effluent limits to the permit conditions is not warranted. Rather than adding these effluent limits to the permit based on lack of information, EPA could have discussed with PEDA the possibility of generating the information EPA felt was lacking. There was sufficient time between the permit renewal application and the draft permit issuance for such discussions to have taken place.

PEDA had no reason to suspect that EPA might have considered such data to be needed and hence no reason to collect and submit such data. There are no known sources for elevated metals concentrations on the PEDA property. EPA explicitly stated in a March 9, 2009 letter from Ken Moraff to Mr. Brooks Smith of Hunton & Williams and Mr. William Hines, then the PEDA Executive Director, that WET testing, and associated metals testing, was not required for the Outfall 001 discharge (see Exhibit C). Such WET and metals testing had previously been required for a composite sample from Outfalls 001, 004, 005, 007, 009, and 011. It is notable that WET and associated metals testing is not required in the current NPDES permit MA0003891 for Outfalls 005 and 009. Outfalls 004, 007, and 011 are no longer active. PEDA is not aware of any new information that was not available at the time of the March 9, 2009 letter or the time when permit MA0003891 was reissued that would justify treating Outfall 001 differently by imposing the WET and associated metals testing requirements on the Outfall 001 discharge. Further, there are no known sources for elevated metals concentrations on the PEDA property.

PEDA specifically requests that the metals and WET testing effluent limits be removed from the permit.

(x) Lack of consistency with the EPA MSGP

In the draft permit, EPA is treating Outfall 001 discharge as though it were an industrial discharge. PEDA does not agree that such treatment is appropriate, but even if it were, the draft permit conditions do not follow EPA guidance for industrial storm water management. The MSGP is the overarching EPA guidance for industrial storm water management. We discussed above how the TSS permit conditions are not consistent with the MSGP guidance. There are at least two other ways in which the draft permit is not consistent with the MSGP guidance.

First, in the Draft Permit, Part II.C.8¹³, EPA specifies certain BMPs that are required to be included in the SWPPP. Mandating specific BMPs runs counter to the guidance provided in the 2008 and 2013 MSGPs. As stated in the 2008 MSGP Fact Sheet in Section VI.A.5, “EPA generally does not mandate the specific controls operators must select, design, install and implement. It is up to the operator to determine what must be done to meet the applicable effluent limits.” The proposed 2013 MSGP Fact Sheet section VI.A.1 contains similar language. “EPA generally does not mandate specific stormwater control measures operators must select, design, install, and implement. It is left to the operator to determine what must be done to meet the applicable effluent limits.”

Second, the MSGP does not support numerical effluent limits for storm water. As stated in the 2008 MSGP Section VI.A.4, “These factors create a situation where, at this time, it is generally not feasible for EPA to calculate numeric effluent limitations, with the limited exception of certain effluent limitations guidelines that have already been established through national rulemaking.”

Response to Comment IV.a.

PEDA presents concerns with several effluent limits and monitoring conditions included in the 2015 Draft Permit. Generally, PEDA requests that BMPs be implemented in lieu of numeric limitations for nearly all the pollutants identified in its comment.

As a preliminary note, Sections 101, 301(b), 304, 308, 401, and 402 of the Clean Water Act provide the basis for the effluent limitations and other conditions in the permits. EPA evaluates discharges with respect to these sections of the Clean Water Act and the relevant NPDES regulations to determine which conditions to include in the draft permit. This includes consideration of pollutants or parameters not only known to be present in a discharge, but also those pollutants or parameters that may reasonably be present depending upon, among other things,

¹³ This section, on pages 8-10 of the draft permit, is actually labeled as Part I, but since this Part follows Part I, we assume it is supposed to be Part II.

the type of facility, pollutant sources, and the type(s) of effluent discharged. Additionally, CWA Section 308(a), 33 U.S.C. § 1318(a), authorizes EPA to require the owner or operator of any point source to provide information as may reasonably be required to:

carry out the objective of this chapter [of the CWA], including but not limited to (1) developing or assisting in the development of any effluent limitation, or other limitation, prohibition, or effluent standard . . . or standard of performance . . . ; (2) determining whether any person is in violation of any such effluent limitation, or other limitation, prohibition or effluent standard, . . . or standard of performance; (3) any requirement established under this section; or (4) carrying out sections 1315, 1321, 1342, 1344 . . .

EPA evaluated the discharge to determine compliance with CWA Section 301(b)(1)(C)'s mandate that permits include limitations to achieve compliance with state water quality standards. The regulations at 40 CFR § 122.44(d)(1), which implement section 301(b)(1)(C), require that NPDES permits include limits for all pollutants or parameters which "are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." When information is insufficient to make this determination, as EPA's *Technical Support Document for Water Quality-based Toxics Control* recommends, the collection of this information is required, either through an information request during permit development or incorporated into permit conditions.¹⁴

In the case of PEDDA's discharge, where EPA was unable to determine if certain parameters had reasonable potential to cause or contribute to an excursion above water quality criteria because of a significant lack of information (*i.e.*, whole effluent toxicity and the associated water chemistry analysis noted above), the draft permit requires monitoring, without limits.

Each of the specific pollutants and issues identified by PEDDA in its comment will be addressed separately in the following discussion.

(i) Flow

PEDA notes limitations of its current continuous monitoring equipment, particularly during low flow conditions, and requests "recognition that the current flow monitoring equipment provides acceptable data under the draft permit conditions and that conditions such as those described above during which the current flow monitoring equipment may not be able to provide flow data will not be considered permit violation."

¹⁴ See Chapter 3 of EPA/505/2-90-001.

One specific example of where the continuous monitoring equipment was unable to provide adequate data is demonstrated in the January 2014 DMR, which states:

[d]ue to frozen conditions in the outfall prior to the sampling event, the flow monitoring probe was inoperable. Storm water flows during the sampling event are estimated based on Manning's Formula for gravity flow using observed flow depth and outfall geometry.

Because the permittee can reasonably estimate the flow during periods of inclement weather, as demonstrated in the DMR above, use of the continuous flow monitoring probe is required to the maximum extent practicable. Estimates of flow are, therefore, acceptable during low flow, high wind, and/or freezing conditions where the Permittee demonstrates use of the probe was not operable. The Final Permit makes this clear and specifies that flow shall be monitored by meter or, in the event of inclement weather, estimate. See Part I.A.1. Footnote 2 of the Final Permit.

(ii) Oil & Grease

First, as to PEDA's suggestion that BMPs should be required in lieu of numeric limits for Oil and Grease, EPA has determined that numeric limits are still appropriate and required by law.

As stated in the Fact Sheet (p. 15), the 15 mg/L Oil and Grease limit in the Final Permit is consistent with the threshold value applied in industrial and stormwater permitting. See 40 CFR § 419; MSGP, p. 62, Table 8.D-2 (identifying effluent limitations applicable to certain industrial activity equal to 15 mg/L); see also 40 CFR § 122.44(d)(1)(vi).

In addition, the 15 mg/L effluent limit satisfies Massachusetts Surface Water Quality Standards at 314 CMR 4.05(3)(b)7, which provide:

[Class B] waters shall be free from oil, grease and petrochemicals that produce a visible film on the surface of the water, impart an oily taste to the water or an oily or other undesirable taste to the edible portions of aquatic life, coat the banks or bottom of the water course, or are deleterious or become toxic to aquatic life.

An effluent concentration of 15 mg/L satisfies these narrative water quality standards because it is recognized as the concentration at which many oils produce a visible sheen. Thus, applying this concentration limit in the Final Permit prevents violation of the Commonwealth's narrative requirements cited above and satisfies the mandates set forth in section 301(b)(1)(C) of the CWA, and is consistent with the existing permit's concentration-based limit.

In its comment, PEDA describes the facts related to exceedances of the existing permit's Oil and Grease limits, and requests that monitoring frequency be reduced. As a result, the monitoring frequency for oil and grease has been reduced

to once per month in the Final Permit, consistent with PEDA's request. EPA notes PEDA's explanation and clarification related to the four exceedances identified in the Fact Sheet and the lack of clear trends for Oil and Grease exceedances. However, EPA has also reviewed data collected in the intervening period between the public notice from 2015 to 2020, which shows that Oil and Grease was rarely detected in the discharge, and there were no violations of the 1992 Permit Limits. For these reasons, EPA agrees that monthly monitoring is sufficient for Oil and Grease in the Final Permit. The Final Permit, therefore, includes effluent monitoring necessary for EPA to ensure that the limitations on Oil and Grease meet applicable SWQS.

(iii) TSS

PEDA expresses concerns with the TSS limits proposed in the Draft Permit, focusing primarily on EPA's explained methodology and alleged conflicts with TSS requirements set forth in the MSGP. PEDA requests that the TSS conditions be consistent with the framework set forth in the MSGP. However, PEDA's discharge is not eligible for coverage under the MSGP or any other general permitting scheme. As such, EPA is required, pursuant to the CWA and its implementing regulations, to assess and apply the appropriate technology-based and water quality-based effluent requirements for this *individual* NPDES permit, and is certainly not bound by the specific framework, conditions, or limits included in the MSGP.

To be clear, TSS limits included in the Draft Permit are site-specific technology-based effluent limits (TBELs) established using EPA's best professional judgment (BPJ); they are not a strict application of national effluent limitations guidelines or limits from a general permit like the MSGP. Fact Sheet, pp. 10, 12-15.

As discussed in the 2015 Fact Sheet (pp. 10-11), TBELs represent the minimum level of control that must be imposed under Sections 301(b) and 402 of the CWA to meet best practicable control technology currently available (BPT) for conventional and nonconventional pollutants, best available technology economically available (BAT) for toxic and nonconventional pollutants, and best conventional pollutant control technology (BCT) for conventional pollutants. Fact Sheet, p. 10. While TSS is a conventional pollutant, it is also a primary transport mechanism of toxic pollutants through adsorption, and thus, serves as an indicator pollutant for those other toxic (non-conventional) pollutants, including PCBs and must meet the BAT standard of control.

However, because no national technology-based effluent limitation guidelines (ELGs) are applicable for the type of activity or discharge from the site, in accordance with CWA § 402(a)(1)(B) and 40 CFR § 125.3(c)(2), EPA is authorized to establish technology-based effluent limitations on a case-by-case basis using its BPJ by applying the appropriate factors listed in 40 CFR § 125.3(d). *See* Fact Sheet, p. 10. As a result, determining BAT and then developing a TBEL for TSS based on BPJ is appropriate at this site.

The BPJ-based, site-specific BAT conditions proposed in the Draft Permit for TSS consist of monthly average and daily maximum concentration-based limits of 27 mg/L and 45 mg/L, respectively, based on the treatment of the effluent by sedimentation in conjunction with best management practices pertaining to solids minimization through implementation of a stormwater pollution prevention plan (SWPPP). Draft Permit, p. 2; Fact Sheet, pp. 12-14. These conditions and limitations are based on aspects of the MSGP for Stormwater Discharges Associated with Industrial Activity for Industrial Sector AD (non-classified facilities) as well as an assessment of present sedimentation treatment technology.

EPA's MSGP requires that control of total suspended solids through BMPs achieve a benchmark value, above which review and potential revisions to BMPs and additional monitoring are triggered. The Fact Sheet explained that this benchmark value, 100 mg/L, is therefore expected to be the maximum long-term average TSS value of water entering the sediment forebays.

With respect to sedimentation technology, the treatment technology applied to TSS at Outfall 001 in the Draft Permit consists of two sediment forebays leading to a wet basin. MassDEP's Stormwater Policy Handbook (1997) provides that a sediment forebay paired with a wet basin is capable of achieving a design removal rate of 80% of the annual TSS load entering the treatment system. In the Fact Sheet for the 2015 Draft Permit, EPA determined that an 80% removal efficiency through application of additional treatment in the infiltration, or wet basin would result in the reduction of TSS from the benchmark value of 100 mg/L to a long-term average of 20 mg/L. Fact Sheet, pp. 13-14. EPA then applied a statistical approach based on available effluent data to set permit limits (27 mg/L monthly average and 45 mg/l daily maximum) for TSS. *Id.*

In its comments, PEDA describes many aspects of EPA's assessment of the appropriate TBELs for TSS that it alleges are in error or otherwise inappropriate. In consideration of these concerns as well as more recent effluent data, EPA has reexamined its BPJ assessment of BAT and the resulting technology-based TSS limitations.

Assessment of BAT Based on EPA's BPJ

To determine site-specific BAT limitations for TSS, as an indicator pollutant for other toxic pollutants including PCBs, EPA must use its BPJ and consider the following factors: (i) age of the equipment and facilities involved; (ii) process employed; (iii) engineering aspects of the application of various types of control techniques; (iv) process changes; (v) the cost of achieving such effluent reductions; and (vi) non-water quality environmental impacts (including energy requirements). *See* CWA § 304(b)(2) and 40 CFR § 125.3(d)(3). In establishing a BAT TBEL for TSS, EPA must determine limits based on use of the most effective pollution control technologies that are technologically and economically achievable, and that will result in reasonable progress toward eliminating discharges of the toxic pollutant(s).

Ultimately, when setting BAT limits, EPA's consideration of the required factors and determination of BAT is governed by a reasonableness standard. *BP Exploration & Oil, Inc. v. EPA*, 66 F.3d 784, 796 (6th Cir. 1995), citing *American Iron & Steel Institute v. EPA*, 526 F.2d 1027, 1051 (3d Cir. 1975), modified in other part, 560 F.2d 589 (3d Cir. 1977), cert. denied, 435 U.S. 914 (1978); *Chemical Manufacturers Ass'n v. EPA*, 870 F.2d 177, 250 n.320 (5th Cir. 1989) (citing Congressional Research Service, *A Legislative History of the Water Pollution Control Act Amendments of 1972* (1973), at 170) (in determining BAT, "[t]he Administrator will be bound by a test of reasonableness."). As one court summarized it, "[s]o long as the required technology reduces the discharge of pollutants, our inquiry will be limited to whether the Agency considered the cost of technology, along with other statutory factors, and whether its conclusion is reasonable." *Ass'n of Pacific Fisheries v. EPA*, 615 F.2d 794, 818 (9th Cir. 1980).

According to 40 CFR § 125.3(c)(2), in determining BAT requirements, EPA should consider the "appropriate technology for the category of point sources of which the applicant is a member, based on all available information," and also "any unique factors relating to the applicant." EPA is again reviewing use of the site's existing sedimentation treatment technology in conjunction with BMPs included in a SWPPP taking into account site-specific information in its consideration of the six BAT factors below. To review other, different technologies that address TSS (e.g., Adsorption/Absorption, ion exchange, and precipitation), descriptions of these treatment technologies can be found in the Federal Remediation Technology Roundtable *Remediation Technologies Screening Matrix and Reference Guide, Version 4.0 (2007)*. Additionally, many of these off-the-shelf technologies, which are identified in the Remediation General Permit as well as the cited Screening Matrix, that are comparable in terms of effectiveness and costs to the technology that PEDDA voluntarily installed and operates. However, the sedimentation technology is already installed and operating at the PEDDA property.

(i) Age of the equipment and facilities involved

PEDDA began using new treatment, which consists of two sediment forebays each leading to a wet basin, in 2009. The use of the new technology is a replacement of and represents an improvement in the treatment efficiency for TSS as compared to the old treatment, which was an oil water separator system. There is nothing about the age of the equipment and facilities involved that would prevent the ongoing use of the same or similar treatment or the implementation of a SWPPP to treat the wastestreams at the site.

(ii) Process(es) employed

The current processes employed at the site include implementation of the wet basin, or sedimentation basin. Again, this technology was voluntarily installed independent of the permit issuance process, and PEDDA has operated this treatment

technology since installation. BMP (and SWPPP) implementation would not interfere with current processes at the property or operation of the wet basin.

(iii) Engineering aspects of the application of various types of control techniques

Treatment for TSS and toxic pollutants adsorbed to TSS typically include sedimentation and solids removal, with or without flocculation and/or coagulation, as needed. In combination, these processes are a straightforward, standard technology applied to treat many types of wastewaters containing suspended solids. The wastewater at this site is treated using settling or sedimentation, which is one of the well-established treatment techniques. In addition, the current treatment processes at the site have been in place at least since 2009, before the Draft Permit was issued for public comment, and were installed specifically to enhance the treatment efficacy. From an engineering standpoint, PEDA is expected to achieve significant reductions in TSS by maintaining the design performance of the treatment technology. Finally, implementation of the BMPs, which do not include the PCB, site-specific BMPs set forth in Section I.C (e.g. slip-lining or plugging existing pipes), will not entail engineered actions or installation of new infrastructure.

Requiring the Permittee to install different treatment technology other than the wet basin would involve engineering changes and may interfere with use of the site.

(iv) Process changes

As discussed above, PEDA's wastewater is treated using an existing treatment system and continued implementation of that system will not require process changes at the property. Further, the treatment technology does not appear to interfere with the re-development activities at the site, and likely will not interfere with anticipated plans for the property. The BMPs will not interfere with current or future use of the property. Because no active industrial processes exist on the PEDA property, implementation of the BMPs will not result in any process changes.

As stated above, other technologies may require process changes and interfere with current or future use of the property.

(v) Cost of achieving effluent reductions

As discussed above, EPA considers the cost of technological alternatives when determining the BAT and associated NPDES permit requirements. Where the BAT standard applies, CWA §§ 301(b)(2) and 304(b)(2) require "EPA to set discharge limits that reflect the amount of pollutant that would be discharged by a point source employing the best available technology that the EPA determines to be economically feasible . . ." *Texas Oil and Gas v. EPA*, 161 F.3d 923, 928 (5th Cir. 1998). To be an "available" technology, the option in question must be

“economically achievable.” *See Chemical Manufacturers*, 870 F.2d at 250 (citing 33 U.S.C. § 1311(b)(2)(A)). The United States Supreme Court has interpreted the CWA to mean that the BAT should “represent a commitment of the maximum resources economically possible to the ultimate goal of eliminating all polluting discharges.” *PA v. Nat’l Crushed Stone Ass’n*, 449 U.S. 64, 74 (1980).

Neither the CWA nor EPA regulations dictate precisely how the Agency should consider costs in its technology standards determinations, but the courts have made clear that only a reasonable consideration of cost is necessary and precise cost estimates are not required. *See BP Exploration*, 66 F.3d at 803; *NRDC v. EPA*, 863 F.2d 1420, 1426 (9th Cir. 1988) (EPA need “develop no more than a rough idea of the costs the industry would incur”). Moreover, the BAT standard does not call for consideration of a comparison of costs to benefits. *See, e.g., Crushed Stone*, 449 U.S. at 74; *Texas Oil*, 161 F.3d at 936.

PEDA voluntarily implemented the new treatment technology in 2009 and continues to operate it. As such, applying BAT limits based on use of the site’s current technology will not result in any new installation costs to PEDA. EPA expects that there are no additional capital costs and minimal operating costs associated with continuing to operate and maintain the new treatment technology. To the extent PEDA incurs additional costs due to the operation of the new treatment technology, EPA notes that that PEDA has voluntarily installed this treatment technology and has been operating it for several years. As such, implementation of the water quality basin is, without question, “economically achievable.” Additionally, implementation of the BMPs will likely result in minor operating costs.

On the other hand, requiring any additional or different treatment technology beyond the current wet basin as BAT for TSS would result in additional and potentially significant installation fees and capital costs.

(vi) Non-water quality environmental impacts (including energy requirements)

Finally, EPA considers the non-water quality environmental impacts associated with the treatment of wastewater, including energy consumption, air emissions, noise, and visual impacts. The Permittee has operated the new treatment technology since 2009 and has not indicated or provided any information to suggest that the new technology results in an increase in energy usage, air emissions and noise as compared to the existing system prior to 2009. EPA does not expect any non-water quality environmental impacts associated with continuing to operate and maintain the new treatment system. Furthermore, any impacts of treatment equipment would be dwarfed by current and future active re-development and usage throughout the rest of the site and will be negligible in considering the activities across the site.

Based on consideration of the appropriate factors above and its best professional judgment, EPA has determined that performance of the current sedimentation (i.e. wet basin) in conjunction with BMPs included in a SWPPP is BAT for treatment of TSS at the PEDA's property. While this technology is the same technology identified as BAT in the Draft Permit, the resulting effluent limits, based on application of this technology, have also been reviewed and result in slightly different numeric effluent limits for TSS. Specifically, EPA has reviewed the basis for the maximum daily and average monthly TSS TBEL based on BAT. EPA concludes that the performance of the current treatment system for the discharge of TSS from this site is consistent with performance of technology addressing stormwater discharges under EPA's 2021 MSGP and groundwater and stormwater discharges under EPA's 2017 RGP. While PEDA's discharge is not covered by either of these general permits, the presence of TSS contamination in PEDA's discharge as well as PEDA's existing treatment technology is similar in certain respects to the technology and type of discharges evaluated in these permits.

The sedimentation treatment technology applied to TSS consists of retention and infiltration. For stormwater associated with industrial activity for all sectors, EPA's MGSP requires control of total suspended solids through best management practices, including a stormwater pollution prevention plan, that achieves a benchmark value. This benchmark value, 100 mg/L, is therefore expected to be the maximum long-term average at the site.

Part 9.10.7.2 of EPA's 2021 MSGP¹⁵ (p. 199) also specifies Additional Effluent Limits for Discharges to Certain Impaired Waters and Sediment Cleanup Sites applicable to discharges to a 303(d)-listed waterbody (Category 5), or a sediment cleanup site in certain parts of the U.S., either directly or indirectly through a stormwater drainage system. Specifically, Table 9.10.7.2.1 requires a numeric daily maximum limit of 30 mg/L for TSS.

The MSGP further provides that where a discharge point is to an impaired waterbody and is subject to an effluent limit for a parameter that also has a benchmark, the effluent limit supersedes the benchmark.

In addition to the MSGP, the Remediation General Permit, or RGP, which applies to commingled groundwater and stormwater discharges associated with certain remedial actions, is also relevant and helpful in EPA's assessment of appropriate TSS limitations and conditions. The RGP requires compliance with a numeric TSS limit of 30 mg/L (a monthly average). *See* RGP, Table 2. More specifically, the RGP explains that a monthly average TSS limit of 30 mg/L is appropriate for discharges similar to PEDA's discharge, and is consistent with numerous nationally promulgated technology-based effluent limitations guidelines as well as

¹⁵ EPA-821-R-04-014 is currently available at: <https://www.epa.gov/eg/effluent-guidelines-plan-support-documents>; The 2021 MSGP is currently available at: <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities-epas-2021-msgp>. The 2017 RGP is currently available at: <https://www.epa.gov/npdes/permits/remediation-general-permit-rgp-massachusetts-new-hampshire>.

limits included in similar individual Massachusetts NPDES permits. *See* Fact Sheet, Remediation General Permit, NPDES Permit No. MAG910000 and NHG910000, at 81-82 (2016), *available at*

<https://www3.epa.gov/region1/npdes/remediation/2016FactSheet.pdf>.

Additionally, the selection of a monthly average limit of 30 mg/L is based on a thorough analysis of acceptable TSS treatment technologies, including the type of treatment applied to Outfall 001, and EPA's determination that such technology can achieve the 30 mg/L monthly average limit. *Id.* Therefore, EPA developed a numeric TBEL for TSS based on the requirements of EPA's 2021 MSGP and 2017 RGP and its evaluation of available data demonstrating the performance of this technology. Specifically, PEDAs available DMR data from 2015 through 2020 was reviewed to reassess the long-term treatment performance of the new technology (i.e., wet basin) used by PEDA to remove TSS. Having reviewed this information, EPA has concluded that a revised technology-based average monthly effluent limitation of 30 mg/L and maximum daily effluent limitation of 100 mg/L are more appropriate in this situation and are thus included in the final permit. First, the inclusion of a monthly average limit set at 30 mg/L is consistent with the approach taken in the RGP, which is appropriate for PEDA's discharge due to its composition and frequency. Second, inclusion of the *daily maximum* limit is based on the need for a daily maximum requirement from the MSGP (*see* Table 9.10.7.3.1). However, due to the variability of the actual performance of the wet basin technology and the unpredictable nature of PEDA's discharge, EPA has determined that the more appropriate daily maximum value is *100 mg/L* rather than the 30 mg/L set forth in the MSGP.

EPA has determined that the current technology, which represents BAT, is capable of achieving these effluent limitations in accordance with typical design standards. Inclusion of the numeric effluent limitations for this parameter will ensure continued effective maintenance and operation of the new treatment technology.

EPA recognizes that these limits are different from those limits proposed in the 2015 Draft Permit. However, the nature and frequency of the data collected pursuant to PEDA's existing permit and the variability of flow at Outfall 001 make it difficult ensure collection of representative data and to accurately assess the actual TSS levels in PEDA's discharge even when using a robust statistical analysis.¹⁶ The MSGP and RGP, on the other hand, assess and specifically

¹⁶ EPA has reconsidered the quality of available data, including the number and type of samples, data variability, and the confidence level of the data set. These data do not directly measure the TSS concentrations. To utilize these data, a number of assumptions must be made about TSS concentrations relative to mass. Further, the previous permit required effluent sampling relative to certain sized precipitation events. However, effluent discharged does not necessarily correlate to specific rainfall events due to storage of stormwater and detention time prior to discharge. In addition, samples collected only in association with a precipitation event do not provide data representative of discharges of non-stormwater discharges (i.e., groundwater). Further, these data exhibit a high degree of variability.

account for the variability of flow and TSS levels present in discharges like PEDA's and, therefore, provide a more appropriate and reliable basis for technology-based TSS limitations. As a result of this and the discussion above, EPA has determined that its revised limitations, based on the MSGP and RGP, are more appropriate BAT limits, based on its BPJ. To the extent that PEDA's comments challenged EPA's statistical methodology in determining the proposed TSS numeric limits, EPA need not respond specifically to those comments because it has applied a revised, different methodology to determine the appropriate numeric limits in the final permit. Thus, those concerns are no longer at issue.

Furthermore, the final effluent limitations are expressed as concentration-based limits, which is both appropriate and consistent with the relevant CWA regulations. EPA has determined that discharges from the site are "non-continuous" because of the intermittent, and/or short duration at which discharges of primarily stormwater are expected occur. The regulations at 40 CFR § 122.45(e) provide that discharges which are *not continuous*, as defined in § 122.2, shall be particularly described and limited, considering the following factors, as appropriate: 1) Frequency; 2) Total mass; 3) Maximum rate of discharge of pollutants during the discharge; and 4) Prohibition or limitation of specified pollutants by mass, *concentration*, or other appropriate measure. Having assessed these factors with respect to PEDA's non-continuous discharge, EPA notes the intermittent, unpredictable nature of the discharges and that the discharges are expected to contribute low pollutant loads because of the combination of technology-based and water quality-based effluent limitations. For these reasons, concentration-based limits are appropriate.

In addition to the factors at 40 CFR § 122.45(e), section 122.45(f) further identifies exceptions to the requirement that limitations, standards or prohibitions in NPDES permits be expressed in terms of mass:

If in establishing permit limitations on a case-by-case basis under § 125.3, limitations expressed in terms of mass are infeasible because the mass of the pollutant discharged cannot be related to a measure of operation (for example, discharges of TSS from certain mining operations), and permit conditions ensure that dilution will not be used as a substitute for treatment.

As a result, EPA has identified data representativeness as a source of concern. In general, a representative sample results in a greater confidence level that the sample collected is representative of the actual concentration of a parameter in the effluent at any given time, which in turn ensures permit compliance.

Because of data quality concerns (*e.g.*, limited quantity of direct measurements, significant number of assumptions required for usability, high degree of variability in the available data), EPA established the specific numeric limits for TSS based upon consideration of PEDA's discharge in conjunction with the MSGP and RGP, or a qualitative evaluation, as discussed above.

40 CFR § 122.45(f)(iii). This exception to mass-based limitations applies to PEDA's discharge. Specifically, the numeric effluent limitations for TSS are not expressed in terms of mass because: 1) the site-specific technology standards, which are consistent with EPA's MSGP, are concentration-based values that are not dependent upon a measure of production; 2) an appropriate measure of production/operation is infeasible for the types of discharges to be covered; and 3) the water quality criteria for toxic pollutants for which TSS is an indicator parameter, are concentration-based, representing the maximum value above which impacts are expected to occur for the averaging period (*see also* 40 CFR § 122.45(f)(ii)). Moreover, the concentration-based effluent limitations will ensure a pollutant concentration does not increase during periods of low flow. While mass-based effluent limitations may be imposed to ensure that dilution is not used as a substitute for treatment, consistent with EPA's MSGP and 40 CFR § 122.45(e), the final permit does not allow the use of dilution as a form of treatment, or as a means to comply with the permit effluent limitations.

Because EPA has considered the factors set forth in 40 CFR § 122.45(e) and has demonstrated that this discharge meets one of the exceptions set forth in 122.45(f), concentration-based TSS limits are included in the final permit. PEDA's comment includes a request that EPA conclude that the mass-based limits in the existing permit are incorrect and, therefore, exceedances of such mass-based limits is inappropriate or somehow invalid. While EPA has determined that the exception allowing for concentration-based limits applies in its final permit, this determination does not go into effect retroactively, nor does it negate violations of the previous permit's limits.

Finally, and on a related note, PEDA expressed disagreement and concern with EPA's reliance on the benchmark values from the MSGP. Although EPA considered a benchmark concentration in the Multi-Sector General Permit, or MSGP, as described above, to establish site-specific, appropriate technology-based limitations for TSS based on its BPJ, in so doing, EPA has not found that PEDA would be covered under the MSGP or otherwise applied the MSGP benchmark directly to PEDA's discharge. The screening procedures discussed in the comment are intended for stormwater from industrial sectors that qualify for coverage under the MSGP. PEDA's discharge *is not* eligible for EPA's MSGP, as the MSGP only authorizes uncontaminated groundwater as an allowable non-stormwater discharge. The pollutants in the groundwater discharged from Outfall 001 include, but are not limited to, oil and grease, TSS, PCBs, and SVOCs. Additionally, the site discharges to an active Superfund site. This is of particular importance because the MSGP has a limitation on coverage for Superfund-related discharges due to, for example, the risk of "recontamination of aquatic media at the CERCLA Site such that your discharge will cause or contribute to an exceedance of a water quality standard." (2021 MSGP Part 1.1.7). This is relevant to PEDA because continued discharges of PCBs to Silver Lake may cause recontamination of Silver Lake, which, as part of the GE Superfund Site, has undergone remediation with respect to PCBs.

Furthermore, benchmarks are not numeric limits. The MSGP benchmark TSS value, 100 mg/L, represents TSS concentrations resulting from proper operation and maintenance of a stormwater collection system. It represents the median TSS concentration observed by the National Urban Runoff Program (“NURP”).¹⁷ As the Federal Register notice (86 Fed. Reg. 10272, 10273 (February 19, 2021)) for the 2021 MSGP explains,

EPA reminds operators and the public that benchmark thresholds are not effluent limitations. This permit requires benchmark monitoring as gauge of the performance of facilities’ stormwater control measures.

Because BMPs such as catch basin and pipe cleaning, street sweeping, and spill prevention are practices that minimize the pollution sources before stormwater reaches a control structure such as a sediment forebay, it is entirely appropriate to consider the expected result of those BMPs to the influent of those control structures. Again, benchmarks in the MSGP are not effluent limitations, and EPA’s consideration of benchmark TSS concentrations from the MSGP does not confer the MSGP permit conditions on PEDA’s NPDES Permit.

The commenter is correct that the MSGP Sector AD does not have benchmark values of its own. This is because Sector AD is intended for facilities that cannot be described by the other sectors.

Ultimately, with respect to PEDA’s permit, EPA’s consideration of the MSGP benchmark TSS value is not contingent on PEDA’s inclusion in any particular MSGP Sector or PEDA obtaining authorization under the MSGP. Rather, it is a common TSS limit applied in EPA’s industrial permits on a case-by-case basis using BPJ, and is consistent with numerous national ELGs. Therefore, this value is relevant and helpful to EPA’s site-specific analysis of TSS limits using its BPJ, as discussed in detail above. Further, a numeric limit, rather than a benchmark, is, in fact, included in the MSGP for TSS in particular circumstances, such as those present at the PEDA property. *See* MSGP, Part 9.10.7.3; *see also* above for further discussion of this part of the MSGP.

The use of data from the NURP, upon which the MSGP benchmark is based, is relevant to the PEDA site because the PEDA property receives runoff from 91 acres of urban residential area to the north of the site.

¹⁷ In an analysis of discharge monitoring report (DMR) data from more than 775 facilities covered by the MSGP 2000, approximately 63 percent of the TSS samples met the benchmark (Tetra Tech, 2006). Tetra Tech, Inc. 2006. Review of Discharge Monitoring Report Data From the 2000 NPDES Industrial Stormwater Permit Program. Technical Memorandum to Jack Faulk, U.S. Environmental Protection Agency. Tetra Tech, Inc., Clemson, SC, and Fairfax, VA.

(iv) Regarding pH

The commenter requests that the pH limits included in the Draft Permit be removed and that the existing limits instead remain.

PEDA explains in its comment that its request is based on concern that PEDA's discharge will exceed the proposed pH limits more often. However, because a discharge would not meet an effluent limit is not a basis for disregarding state water quality standards and the CWA's clear mandate to ensure compliance with such standards.

As stated in the Fact Sheet, p. 14-15, the CWA requires that EPA impose the more stringent of technology-based and water quality-based effluent limits. *See* CWA § 301(b)(1)(C) and 40 CFR § 122.44(d). In this case, the applicable Massachusetts SWQS are more stringent and therefore, WQBELs apply. Massachusetts SWQSs at 314 CMR 4.05(3)(b)(3) provide that pH “[s]hall be in the range of 6.5 through 8.3 standard units and not more than 0.5 units outside of the natural background range. There shall be no change from natural background conditions that would impair any use assigned to this Class.”

In the Draft Permit, EPA included an allowable pH range of 6.5 through 8.3 standard units (S.U.), consistent with the Massachusetts SWQSs. However, monitoring data from 2019 and 2018 at the location where Silver Lake discharges into the Housatonic River indicate that pH in Silver Lake, the receiving water for PEDA's discharge, was well within the 6.5 to 8.3 S.U. range established by the SWQSs, except for one exceedance (8.38 S.U.) in 2018. *See* Table 5-1 Surface Water Monitoring Results Summary, *2018 Annual Monitoring Report Silver Lake Area*, General Electric Company - Pittsfield, Massachusetts (Feb. 2019); Table 4-1 Surface Water Monitoring Results Summary, *2019 Annual Monitoring Report Silver Lake Area*, General Electric Company - Pittsfield, Massachusetts (Feb. 2020).

As a result, the pH limited range included in the Final Permit is 6.5 to 9.0 S.U.; this Final Permit has allowed the higher end of the pH range to be less stringent than the range in the Massachusetts SWQS (6.5-8.3 S.U.). In order for consideration to be given to retain this relaxed pH range in the subsequent permit reissuance and as described in I.C.4 of the Final Permit, PEDA is required to submit a study within three (3) years of the effective date of this permit demonstrating that the pH in the receiving water does not exceed the range of 6.5-8.3 S.U. This demonstration shall be conducted consistent with MassDEP's *Procedures for a pH Adjustment Demonstration Project for NPDES Permits* and approved by MassDEP.

(v) Regarding *E.coli*

PEDA comments that the *E. coli* monitoring should be removed from the permit because it is not a pollutant that originates within the PEDA property. Although

pollutants discharging through Outfall 001 may originate outside of the PEDAs property, PEDAs nonetheless owns the water quality basin and outfall. Under the NPDES program, permits are issued for discharges of pollutants at specific outfalls rather than for pollution sources. However, both the current and upcoming Small MS4 General Permits require towns to take measures to reduce bacterial contamination of stormwater, such as illicit discharge detection and elimination (IDDE) and education of pet owners about proper disposal of pet waste. EPA expects PEDAs and the City of Pittsfield to work cooperatively to address sources of pathogens in stormwater discharging from Outfall 001. Thus, the source of potential *E. coli* sources does not change EPA's determination that *E. coli* monitoring is necessary.

This monitoring is retained in the final permit because Silver Lake discharges to a segment of the East Housatonic River that is listed as impaired for *E. coli* and fecal coliform on the 2016 303(d) list and there is insufficient monitoring data to determine whether Outfall 001 contributes bacterial impairment in this segment of the Housatonic River. *See* Fact Sheet, pp. 15-16; *see also* 2021 MSGP, Section 4.2.5.1.a, page 41. EPA notes that Silver Lake has not been assessed for impairment; however, it is possible that if it were, it may be deemed impaired for fecal coliform and *E. coli* as well. Because *E. coli* has replaced fecal coliform as the indicator of pathogenic bacteria for assessing attainment of secondary recreational water quality standards, the Final Permit includes monitoring for *E. coli* only. *See* 314 CMR § 4.05(3)(b)4.b; Fact Sheet, p. 15.

(vi) Regarding total phosphorus

PEDAs similarly objects to the phosphorus monitoring requirements set forth in the Draft Permit because phosphorus is generated by sources outside the PEDAs property. As stated above, the source of the pollutant contained in PEDAs discharge has no bearing on EPA's authority and responsibility to ensure that discharge the is only authorized discharge in satisfaction of the demands of the CWA.

However, unlike *E. coli*, the segment of the Housatonic River into which Silver Lake discharges is not identified as impaired for phosphorus or nutrients. Thus, EPA has determined that it is appropriate, at this time, to remove the quarterly monitoring requirement from the Final Permit. EPA notes, however, that phosphorus monitoring is required of all applicants as part of the NPDES application. EPA believes this application requirement will provide sufficient information to conduct an initial evaluation of the presence of phosphorus in the discharges from the site to determine if additional monitoring requirements or effluent limitations are necessary to meet water quality standards in the future.

On the other hand, EPA has retained non-numeric technology-based effluent limits (i.e., BMPs) specific to minimizing nutrients, including phosphorus in stormwater discharges from the site. *See* 2015 Fact Sheet, pp. 16-17; *see also id.*

at 24-26, and Section I.C. of the Final Permit. The following list of mandatory BMPs shall be implemented and documented in the SWPPP Permit:

- Procedures to minimize the use of pesticides, herbicides, and fertilizers. Procedures must include requirements for use of slow release fertilizers on permittee-owned property, in addition to reducing and managing fertilizer use (i.e., the proper use, storage, and disposal of pesticides, herbicides, and using only in accordance manufacturer's instruction).
- Evaluate to ensure practices for lawn maintenance and landscaping activities are protective of water quality. Practices include reduced mowing frequencies, proper management and disposal of lawn clippings and leaf litter, and use of alternative landscaping materials (e.g., drought resistant planting). Blowing organic waste materials onto adjacent impervious surfaces is prohibited.
- Implement a regular street sweeping program. The minimum frequency is monthly.

These BMPs are found in Part I.c.2. of the final permit.

(vii) Regarding total nitrogen

Again, PEDDA's comment suggests that any nitrogen in its discharge originates outside of its property, and as a result, the quarterly monitoring requirement for nitrogen should be removed from the permit. See the previous discussion on this point for phosphorus and *E. coli*.

For reasons similar to those identified above in EPA's discussion of phosphorus monitoring and as explained further below, EPA is reducing nitrogen monitoring from quarterly to twice per year the Final Permit.

The permit application included only one sample of total nitrogen, with a result of 0.530 mg/L, which is above the Ecoregional criteria for Lakes and Reservoirs in Nutrient Ecoregion VIII¹⁸ (0.008 mg/L). By proposing monitoring requirements without limits in the draft permit, EPA determined that a single sample, as provided to date, is not sufficient to determine effluent variability or make an informed decision regarding compliance with water quality standards. However, in response to this comment, EPA has decreased the monitoring frequency to twice per year, as part of the WET testing, which is consistent with EPA's *Technical Support Document for Water Quality-based Toxics Control* recommendation of a minimum of three years of data for ascertaining the attainment of both acute and chronic effect for chemical-specific approaches,¹⁹ the recommendation for a minimum data set of 8 to 12 samples for evaluation of pollutants of concern²⁰ and 10 or more samples for statistical analysis.²¹ This

¹⁸ Report accessible at <https://www.epa.gov/sites/production/files/documents/lakes8.pdf>

¹⁹ See Chapter 2; EPA/505/2-90-001: March 1991.

²⁰ See Chapter 3; EPA/505/2-90-001: March 1991.

²¹ See Appendix E; EPA/505/2-90-001: March 1991.

monitoring is necessary and appropriate for EPA to carry out its responsibilities under the CWA and will allow EPA to determine if the discharge causes, has reasonable potential to cause, or contribute to an excursion above of water quality standards and impose effluent limitations, if necessary, to meet water quality standards in the future, given that downstream segments are impaired for nitrogen. *See also* Fact Sheet, pp. 16-17.

EPA also notes that total nitrogen monitoring is required of all applicants as part of the NPDES application, and monitoring for ammonia nitrogen is required in conjunction with whole effluent toxicity testing. EPA believes these requirements collectively will provide information necessary to conduct an evaluation of the presence of nitrogen in the discharges from the Facility to determine if additional monitoring requirements or effluent limitations are necessary to meet water quality standards in the future.

In addition, EPA has retained non-numeric technology-based effluent limits (i.e., BMPs) specific to minimizing nitrogen in stormwater discharges from the site. These BMPs are similar to ones proposed in the recently released draft General Permit for Small MS4s in Massachusetts, for MS4s located within the three watersheds and include minimization of fertilizer application, use of slow release fertilizer, management of grass clippings and leaf litter, and regular street sweeping. *See* 2015 Fact Sheet, p. 17.

(viii) Regarding PCBs

PEDA presents several comments on EPA's inclusion of numeric PCB limits in the 2015 Draft Permit. To the extent that PEDA asserts that the proposed limits were in conflict with or precluded by the Consent Decree, these assertions are not correct and are addressed throughout this document, including in Responses to Comments 2.A.III.a, b, 2.B.II, 2.B.II.a, 2.B.II.a.1-4.

Additionally, contrary to the opening remarks of this comment, EPA's description of the groundwater and soil on the PEDA site as "contaminated" is not inappropriate and is, therefore, maintained in the final permit. The groundwater, soil, and stormwater at the PEDA property is described as contaminated due to the presence of PCBs and other contaminants within these media. The attainment of Consent Decree performance standards does not change this characterization.

In the above comment, PEDA focuses on concerns about the compliance limit proposed in the draft permit as well as EPA's analysis of the PCB concentration data and use of such analysis in its reasonable potential assessment. PEDA cites these two concerns as reasons for removing numeric PCB limits from the permit. EPA has determined that BMP-based limits for PCBs are appropriate in lieu of numeric limits, based on its assessment of comments on the Draft Permit and evaluation of data and relevant information. *See* Response to Comment 2.A.V.c. Therefore, these concerns regarding compliance with numeric limits are no longer relevant.

However, EPA finds it worth explaining a few of the issues that PEDA raises, particularly with respect to its reasonable potential analysis. EPA follows the guidance in *Technical Support Document for Water Quality-based Toxics Control* to determine if any pollutant or pollutant parameter (conventional, non-conventional, and toxic) that is or may be discharged causes or has the “reasonable potential” to cause or contribute to an excursion above any water quality standard (40 CFR § 122.44(d)). An excursion occurs if the projected or actual in-stream concentration exceeds an applicable water quality criterion. In determining “reasonable potential,” EPA considers the following factors: (1) existing controls on point and non-point sources of pollution; (2) pollutant concentration and variability in the effluent and receiving water as determined from the permit’s re-issuance application, monthly discharge monitoring reports (DMRs), and State and Federal Water Quality Reports; (3) sensitivity of the indicator species used in toxicity testing; (4) known water quality impacts of processes on waste waters; and (5) where appropriate, dilution of the effluent in the receiving water.

Each of these five factors is discussed at length in the 2015 Fact Sheet. *See* Fact Sheet, pp. 18-19.

1) Existing controls on point and non-point sources of pollution

The existing controls consist of two sediment forebays that overflow into a permanently wet basin (i.e. the water quality basin). The north forebay is undersized and not capable of handling heavy stormwater flows with high TSS concentrations. This has been illustrated by four breaches of the north forebay that have occurred during storm events. Also, the water quality basin intercepts groundwater that contains PCBs, meaning that the water quality basin itself may be a source of PCBs.

2) Pollutant concentration and variability in the effluent and receiving water

Since the water quality basin has gone online, discharge concentrations of PCBs have been consistently higher than both the aquatic life criterion and the human health criterion. Using a method from the *Technical Support Document for Water Quality-based Toxics Control (TSD)*, EPA calculated a projected upper bound for effluent PCB concentrations based on methods in the TSD, Section E-6. See Appendix E for the details of this statistical derivation. EPA determined that the projected 95th percentile effluent PCB concentration is 0.427 µg/L, which is over 30 times the aquatic life criterion of 0.014 µg/L.

The water column concentration of PCBs in Silver Lake has dropped since capping of the lake in 2013, but the median concentration, at 0.044 µg/L, is still above both the human health criteria of 0.000064 µg/L and the aquatic life criterion of 0.014 µg/L. Furthermore, the reach of the Housatonic River to which Silver Lake outlets has been listed as impaired for PCBs in fish tissue. Discharges

of PCBs in excess of the water quality criterion contributes to this water quality impairment.

3) Sensitivity of the indicator species used in toxicity testing

This factor pertains only to whole effluent toxicity test limits, which are not included in the draft permit.

4) Known water quality impacts of processes on wastewater

Because there are no longer any industrial processes on the site, this factor is inapplicable.

5) Where appropriate, dilution of the effluent in the receiving water

In a strictly quantitative approach, EPA tabulates available data, determines the applicable water quality criteria and statistically projects concentrations based on available effluent data using a steady state mixing that accounts for the contribution of the discharge, by volume as compared to the receiving water under worst case conditions, and the concentration already present in the receiving water. EPA completes this analysis when available data are sufficient.

To determine if the concentrations discharged cause or have a reasonable potential to cause or contribute to an excursion above the State SWQSSs, EPA followed the guidance in *Technical Support Document for Water Quality-based Toxics Control*. While the commenter notes the reasonable potential analysis using this methodology as “not legitimate evaluations,” no acceptable alternative acceptable method for analysis is suggested. Based on the lognormal distribution of effluent data and the quantity of available data, the percentile approach prescribed in EPA’s *Technical Support Document for Water Quality-based Toxics Control* to determine reasonable potential is appropriate. As the reasonable potential analysis included in the permit’s fact sheet demonstrated, the discharge has reasonable potential to cause an excursion above the applicable water quality criterion for PCBs. Therefore, effluent limitations are required. In consideration of PEDA’s comment, EPA has determined that effluent limitations expressed as non-numeric water quality-based limitations (i.e., best management practices or BMPs) is appropriate.

Best management practices (BMPs) may be expressly incorporated into a permit on a case-by-case basis in specific circumstances where it is determined that they are necessary to achieve effluent limitations and standards or to carry out the purpose and intent of the CWA under § 402(a)(1). EPA regulations enumerate the circumstances where BMPs are authorized to control or abate the discharge of pollutants: 1) authorized under section 304(e) of the CWA for the control of toxic pollutants and hazardous substances from ancillary industrial activities; 2) authorized under CWA § 402(p) for the control of stormwater discharges; 3) numeric effluent limitations are infeasible; or 4) the practices are reasonably

necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. 40 CFR §§ 122.44(k)(1)-(4).

The primary bases for inclusion of non-numeric limitations in lieu of numeric limitations for PEDAs discharges of PCBs are that BMPs are necessary to carry out the purposes of the Act (i.e., ensure compliance with water quality standards pursuant to CWA section 301(b)(1)(C)) and numeric effluent limitations are infeasible. *See* 40 CFR §§ 122.44(k)(3), (4). Numeric limitations are infeasible for a few reasons. First, while EPA conducted analysis based on available PCB loading and effluent data, PEDA's discharge is variable and difficult to accurately characterize. Much of the discharge is composed of stormwater, which EPA regulations and guidance recognize is often best regulated through BMPs due to its variability in flow, frequency, magnitude, etc. *See Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits*, 61 Fed. Reg. 43,761 (Aug. 26, 1996), revised in 61 Fed. Reg. 57425 (Nov. 6, 1996); *In re District of Columbia Municipal Separate Storm Sewer System*, 10 E.A.D. 323, 336-39 (EAB 2002); *In re Arizona Municipal Storm Water NPDES Permits*, 7 E.A.D. 646 (EAB 1998).

Additionally, in this case, the applicable water quality criterion is multiple orders of magnitude below the most sensitive EPA-approved test method in 40 CFR Part 136. The water quality criterion is 0.000064 µg/L, and the most sensitive EPA test method, EPA Method 608.3 has a published minimum level of 0.095 µg/L for one or more PCB Aroclors.

Weathering of PCBs can result in degradation of Aroclors (commercial formulations of PCBs) into PCB congeners such that the chemical profile in sampled media (surface water, groundwater, soil) no longer matches the original release. EPA Method 608.3 only detects PCB Aroclors, but EPA anticipates the approval of an updated PCB test method that would incorporate analysis of PCB congeners and more accurately characterize the presence of PCBs in the discharge. If such a method is approved within the 5-year term of the Final Permit, EPA has included a requirement that PEDA begin using this method within 6 months of the method's approval. *See* Final Permit Part I.A.1. Footnote 7.

On the other hand, the non-numeric limitations, or BMPs, will ultimately result in the elimination of PCB discharges, which satisfies the purposes and requirements of the CWA and its regulations. EPA concludes that BMP-based water quality based effluent limitations are feasible, more practically achievable, and ensure compliance with Massachusetts SWQS. For additional explanation of EPA's decision to include non-numeric limitations in the Final Permit, see Response to Comment 2.A.V.c.

Finally, with respect to the appropriate test methods for monitoring PCBs in Part I.A.1., Footnote 6 of the Final Permit, as mentioned above, the most sensitive EPA test method is EPA Method 608.3. GC/LRMS procedure for PCB congener

and homolog analysis based on EPA Method 608.3 can determine all 209 PCB congeners or a subset of congeners (WHO, NOAA or custom list). This method is also capable of measuring groupings of PCB congeners as a function of their level of chlorination (e.g. homologs/homologues). Additionally, the GC/LRMS method can estimate PCB Aroclor concentrations from the same sample aliquot as the congener/homologs, allowing for the simultaneous measurement of congeners, homologs and Aroclors. This testing approach eliminates the potential variability associated with the analysis of multiple aliquots.

However, EPA is aware that GE currently collects relevant and related PCB monitoring data in Silver Lake, using RCRA method 8082. Therefore, for the purpose of characterization of the existence of PCBs at this site under the special conditions section of the permit, EPA will also allow RCRA method 8082 to be used (i.e., data do not have to be analyzed using Part 136 test method 608.3).

Further, the permittee may request an alternate test method, in lieu of 608.3, for compliance monitoring pursuant to 40 CFR § 136.5.

(ix) Regarding WET and metals analysis

PEDA comments that EPA's rationale for including WET testing requirements in the draft permit—which PEDA describes as “lack of information”—is somehow insufficient or invalid and, as a result, these requirements should be removed from the permit. EPA has considered this comment and the record and determined that WET testing requirements are appropriate and authorized by the Clean Water Act, as will be discussed in detail below.

As is well-established, the Clean Water Act authorizes EPA to require monitoring and reporting through the NPDES program. Specifically, section 308(a) of the Act, 33 U.S.C. § 1318(a)(A), “confers broad authority on the Agency to impose monitoring requirements on any point source.” *In re City of Port St. Joe*, 7 E.A.D. 275, 306 (EAB 1997). Section 402(a)(2) of the Act provides that an NPDES permit may include “conditions on data and information collection, reporting, and such other requirements as [the Administrator] deems appropriate.”

Whole Effluent Toxicity (WET) testing is often an important data gathering tool for EPA and permitting authorities. WET describes the aggregate toxic effect of an aqueous sample as measured by an organism's response upon exposure to the sample (e.g., lethality, impaired growth, or reproduction). EPA's WET tests replicate the total effect of environmental exposure of aquatic life to toxic pollutants in an effluent without requiring the identification of the specific pollutants.

WET test results and data are used for, among other things, assessing reasonable potential and determining compliance with narrative State SWQs and are a vital component to implementing water quality standards under the NPDES permits program in accordance with the CWA Section 402 and supports meeting the goals

of the CWA Section 101(a) and (2). *See also* 40 CFR Part 122.41(j)(1) (Conditions applicable to all permits); 40 CFR Part 122.44(d)(1)(ii),(iv), and (v) (Establishing limitations, standards, and other permit conditions).

However, significant data gaps were noted in the 2015 Fact Sheet, which prevented EPA from utilizing specific values for pollutants of concern. *See* Fact Sheet, pp. 23-24. Specifically, because these parameters have not been monitored in the facility's discharges since 2009, available monitoring data are insufficient for EPA to make a definitive determination. The commenter has submitted no quantitative factual basis demonstrating that these pollutants are not present at the facility at levels that cause or have reasonable potential to cause or contribute to an excursion above water quality criteria, and in the absence of sufficient data, EPA cannot assume these parameters are not present given the types of toxic pollutants present at the site (e.g., PCBs), historical uses at the site (e.g., industrial manufacturing), the type of discharge (e.g., stormwater and contaminated groundwater), and/or pollutants identified as causing impairments to the receiving water (e.g., *E. Coli* and PCBs). EPA determined, pursuant to sections 308(a)(3)(A) and 402, further monitoring is necessary in order to evaluate the effluent from the facility with regard to certain pollutants associated with urban industrial activity and the response actions conducted pursuant to §§104, 106, 120, 121 or 122 of the Comprehensive Environmental Response, Compensation, and Liability Act. *See* Fact Sheet, pp. 23-24.

Further, EPA's rationale for requiring the facility to gather more data is based on ensuring that stormwater discharges do not impact the water quality of Silver Lake or pose a risk to human health or the environment by causing or contributing to recontamination, pursuant to the Clean Water Act. EPA's ability to exercise its legitimate regulatory authority granted in Sections 402 and 308 of the CWA to gather information to determine the concentrations of pollutants discharging into Silver Lake at the facility is of paramount importance to human health and the environment. EPA's decision to include site-specific and/or receiving water-specific parameters in the permit is reasonable and consistent with its responsibilities under the Act, particularly given the highly impacted nature of the watershed below the discharge and the nature of impairments in the receiving waters. EPA expects the frequency of this sampling to reduce with time, if pollutants are not detected.

Ultimately, given the pollutants identified for Silver Lake, the sources of these pollutants documented at the site, and the impairments related to these pollutants listed for downstream and adjacent segments in conjunction with the inadequacy of existing data, EPA maintains that WET testing is warranted.

Limited sampling, such as the Permittee suggests, is not sufficient to determine effluent variability or make an informed decision regarding compliance with water quality standards. However, given the cost burden of increased sampling and analysis is high for whole effluent toxicity, EPA has reduced the WET test frequency to twice per year for the five-year permit term. A five-year permit term

aligns with EPA's *Technical Support Document for Water Quality-based Toxics Control* recommendation for ascertaining the attainment of both acute and chronic effect for both chemical-specific and whole effluent approaches.²² Further, a twice per year monitoring frequency aligns with the recommendation for a minimum data set of 8 to 12 samples for evaluation of pollutants of concern²³ and 10 or more samples for statistical analysis.²⁴ Over a five-year permit term, 2/Year sampling will yield 10 data points. Therefore, the Final Permit retains WET testing along with the metals effluent and receiving monitoring required in the testing protocol at a frequency of 2/year, in April and October.

However, after the five-year permit term, EPA agrees that WET testing frequency may be reduced or eliminated, assuming that the permit has been administratively continued. If five years has elapsed since the effective date and PEDA's WET testing has yielded 10 valid test results, the WET testing frequency will decrease to one test per two years. The biennial test WET test and associated monitoring shall be conducted in April.

An expected benefit of this monitoring frequency is to characterize the quality and variability of the effluent and receiving water, which in turn ensures permit compliance, including both compliance with new WQBELs derived from human health criteria for pollutants for which the receiving water and/or downstream and adjacent segments are impaired and for which the site area is a source is of significant concern. In general, a larger sample size results in a greater confidence level that the sample collected is representative of the actual concentration of a parameter in the effluent at any given time. In choosing this monitoring frequency, EPA considered specific aspects of the PEDA site, the discharge, the receiving water, and downstream segments. Factors increasing the risk of toxic effects include residual contamination of the site, proximity to an active CERCLA action, the lack of dilution in Silver Lake, commingling with urban area runoff, and the risk of recontamination. This discharge is different from the composite sample subject to toxicity testing in the prior NPDES Permit MA0003891. Factors mitigating the risk of toxic effects include prior remediation activities, lack of current industrial activity, and the treatment provided by the sediment forebays and the water quality basin.

PEDA states that EPA could have requested toxicity testing prior to issuing the draft permit; however, there is no legal or regulatory requirement that EPA request such testing prior to issuance of a draft permit. Additionally, EPA notes that since the draft permit was issued, PEDA has not sought to fill the data gap and has not provided data demonstrating a lack of need for additional WET testing at Outfall 001. Additionally, the practical effect and cost of this testing

²² See Chapter 2; EPA/505/2-90-001: March 1991.

²³ See Chapter 3; EPA/505/2-90-001: March 1991.

²⁴ See Appendix E; EPA/505/2-90-001: March 1991.

prior to permit issuance or draft permit issuance is no different from the cost of the testing requirement in the Final Permit.

Finally, PEDA notes that the related GE permit does not require WET testing. However, this is, again, not a reason for removing the WET testing requirements in PEDA's permit, as explained above and in the Fact Sheet:

When EPA reissued [the GE Permit] in 2008, it removed the requirement to conduct toxicity testing because the previous tests did not show reasonable potential for the composite discharge to violate water quality standards. However, the same cannot be said of Outfall 001, especially given the changes that have occurred on the PEDA site. Also, any toxicity present in the Outfall 001 discharge could have been diluted by the presence of other discharges in the composite sample.

Fact Sheet, p. 24.

(x) Regarding the applicability of EPA's MSGP

PEDA comments that EPA's draft permit is impermissibly inconsistent with EPA's MSGP in two respects: 1) requiring specific BMPs is inconsistent with the MSGP's BMP approach; and 2) the inclusion of numeric effluent limitations applicable to PEDA's discharge is at odds with the MSGP determination that numeric limits for stormwater are infeasible. At the outset, it is important to reiterate that PEDA's discharge is an industrial discharge, and comprises not only stormwater, but also groundwater. See Responses to Comments 2.B.IV; *see also* Fact Sheet, p. 24. As a result, PEDA is not covered by the MSGP and is, therefore, not bound by or subject to the MSGP's determinations and effluent limitations and permit conditions. However, EPA has found, as explained throughout this document, that because stormwater is discharged at Outfall 001, the MSGP is helpful and relevant to EPA's site-specific assessment of appropriate limits to satisfy the requirements set forth under sections 301 and 402 of the Clean Water Act.

The MSGP generally requires all facilities to implement technology-based pollution prevention measures in lieu of numeric limitations and to prepare a Stormwater Pollution Prevention Plan (SWPPP) documenting the implementation of these measures.²⁵ The general permit established a process whereby the operator of a facility evaluates potential pollutant sources at the site and selects and implements appropriate measures designed to prevent or control the discharge of pollutants in stormwater runoff.²⁶ This Final Permit contains BMPs for stormwater runoff at the PEDA property. In addition to BMPs, the Final Permit also requires the Permittee to develop, implement, and maintain a SWPPP for stormwater discharges associated with the site. EPA agrees that while the BMPs

²⁵ 57 Fed. Reg. 41,236, 41,264 (September 9, 1992).

²⁶ *Id.* at 41242.

that are required to be included in the SWPPP need not be, they could be more consistent with EPA's MSGP. Therefore, to clarify components of the MSGP that EPA has applied to PEDA's discharge, EPA has revised the SWPPP provisions that the Permittee must meet in the Final Permit to be more consistent with EPA's 2021 MSGP. Specifically, the SWPPP requirements in Part I.C.1 of the Final Permit are based on Part 6 of EPA's 2021 MSGP, and include:

- Stormwater pollution prevention team;
- Site description;
- Drainage area site map;
- Summary of potential pollutant sources;
- Description of all stormwater control measures; and
- Schedules and procedures pertaining to implementation of stormwater control measures, inspections and assessments, and monitoring.

To the extent applicable to the Facility, EPA has also incorporated technology-based limitations and conditions from EPA's 2021 MSGP. See Response to Comment 2.A.V.c. Thus, EPA has taken steps to ensure that this individual permit is consistent with those requirements from the MSGP that are appropriate and relevant at this specific site.

With respect to PEDA's first concern, PEDA is incorrect that requiring *specific* BMPs runs counter to the MSGP. To the contrary, the MSGP explicitly requires site-specific BMPs under certain circumstances (*i.e.*, when dischargers fall under specific industrial sectors, they are subject to site-specific BMPs that reflect factors unique to their sector or sub-sector). *See, e.g.*, 2021 MSGP, Part 8. In any event, PEDA's discharge is not covered by the MSGP, as has been explained throughout this document.

Turning now to PEDA's second concern, EPA disagrees that the MSGP does not support numeric effluent limits for stormwater. First, the conclusion that EPA made in 2021 about whether numeric limitations were appropriate in the context of a *general* permit (*i.e.*, the MSGP) is not applicable to EPA Region 1's site-specific assessment of appropriate limitations to comply with technology standards and water quality standards for this *individual* permit. Regardless, the MSGP itself does not foreclose the possibility of including additional numeric limitations; EPA states in the MSGP that any discharge may be subject to additional limitations if necessary to meet water quality standards, which may include numeric limits. 2021 MSGP, Part. 2.2, p. 24-25. Nothing in the MSGP prohibits these necessary limits from being expressed as numeric. Again, however, PEDA's discharge is not covered by the MSGP.

Finally, while EPA agrees that the MSGP is the general permit used to permit the majority of discharges of stormwater associated with industrial activity in Region 1, EPA notes that Region 1's Remediation General Permit, not the MSGP, is the general permit used to permit the majority of discharges of pollutants in

groundwater in Region 1, and is also relevant to its assessment of necessary conditions and limitations in PEDAs' individual permit.

Specifically, Region 1's Remediation General Permit (MAG91000 and NHG91000) provides coverage for the majority of facilities in Massachusetts and New Hampshire with discharges of contaminated groundwater and certain surface waters. Activities covered include, for example, collection structure dewatering/remediation, which refers to dewatering/remediation of structures utilized for collecting miscellaneous sources of water from contaminated or formerly contaminated sites or sources, including when contamination is naturally occurring or a result of the infiltration of contaminated groundwater or storm water. The Remediation General Permit utilizes numeric and non-numeric technology-based and water-quality-based effluent limitations, including BMPs, which is consistent with EPA's approach in the PEDA draft permit and this final permit.

Comment IV.b. Financial Considerations

The proposed permit would impose an onerous financial burden on PEDA, beyond PEDA's financial capacity. The proposed permit would require both capital investment and increased operating costs. PEDA has worked with its consultants to estimate the cost of permit compliance. Our preliminary cost estimates follow.

(i) Capital and Initial Costs

- Modified flow monitoring equipment, approximately \$30,000²⁷
- SWPPP modification, approximately \$40,000. While we recognize that a comprehensive SWPPP is appropriate, EPA must recognize that preparation of the plan for a 52-acre former industrial property is a major undertaking for PEDA. Preparation of the plan will compete with other costly permit requirements for adequate funding. If the requirements in the draft permit sections C.1-C.7 also apply to the 91-acres of municipal stormwater that drains into the north forebay, then the cost would be much higher.
- Initial pipe cleaning and inspection (draft permit Section C.8.a), approximately \$75,000. Our cost estimate is based on a review of the general scope with a remediation contractor. The effort is expected to require a 4 to 5 man crew for up to two weeks, rental of a 20,000 gallon fractionation tank and associated pumps and piping, off-site disposal of thousands of gallons of liquid generated by the effort, off-site disposal of 20 to 30 tons of potentially PCB contaminated solids and video inspection

²⁷ This expense may not be needed if EPA agrees with the PEDA request regarding flow rate monitoring in Section IV.a(i).

of thousands of feet of variable diameter piping systems. Note that this estimate is only for the piping system on the northern side of the PEDDA property. If the requirement in draft permit section C.8.a.i also applies to the 91 acres in Pittsfield that drain to the north forebay but are not owned by PEDDA, then the cost would be much higher.

(ii) Increased Compliance Costs (incremental cost increases compared to current permit)

- Increased compliance monitoring costs, approximately \$30,000/year. Our estimate is based on a detailed review of the increased scope and frequency of monitoring required by the draft permit. This estimate presents only the increased cost to PEDDA above current costs for sample collection and processing labor, laboratory costs, DMR preparation and data management. This estimate also assumes that rainfall information from the Pittsfield Airport will suffice for the precipitation reporting in draft permit Attachment A. If an on-site weather station is required, costs would be higher.
- Increased annual drainage system maintenance costs, approximately \$20,000/year. The Draft permit requires semi-annual removal of sediments from the forebays, which is an increase from the current schedule.

Increased periodic drainage system maintenance costs. Draft permit section C.8.b.ii requires removal of accumulated sediment from the water quality basin at least every five years, or when the capacity is more than 25% less than the design capacity. At this time we have not estimated either the cost to measure the basin capacity or to remove the accumulated sediment when needed. We expect, however, that both of these activities would involve substantial cost.

PEDA does not have taxing authority, but is rather funded through a combination of a fixed pool of funds that needs to last until the site is fully redeveloped, modest fees from tenants on portions of the property that are currently redeveloped, and funds that may be available through grants. As discussed earlier, these available funds are not currently adequate to support both PEDDA's ongoing operational costs and the increased costs associated with the proposed conditions in the draft permit. PEDDA's limited resources would not permit PEDDA to pursue innovative and beneficial BMPs and low impact infrastructure development (described in detail in Section V below) and at the same time comply with the sampling and monitoring requirements of the proposed permit.

Response to Comment IV.b.

EPA notes PEDDA's concerns about potential financial burdens associated with compliance with the draft permit. As a threshold matter, while EPA understands that new conditions or requirements in the final permit may require additional

costs, section 301(b)(1)(C) of the Clean Water Act requires that EPA ensure any discharge complies with state water quality standards. This statutory obligation must be met, despite the associated costs. However, when EPA establishes site-specific *technology-based* effluent limits applicable to a discharge, it considers numerous factors set forth in the regulations, including cost. To the extent that the final permit includes technology-based effluent limits, cost was appropriately considered and accounted for, as is described throughout this Response to Comments document.

With respect to some of the specific potential costs noted by the commenter, the Final Permit does not require changes to the flow monitoring equipment and reduces the frequency of WET testing relative to the Draft Permit. See Response to Comment 2.A.IV.a. Also, EPA notes that the pipeline cleaning and inspection requirement only applies to the portions of those drainage pipes PEDDA identifies as contributing PCBs to Outfall 001. To the extent that PEDDA decides to plug those pipes or otherwise disconnect them from the Outfall 001 drainage area, it can reduce or eliminate the need for and associated costs of pipeline cleaning and inspection.

Regarding rainfall measurements, it is sufficient for PEDDA to report rainfall amounts from the Pittsfield Airport. Thus, EPA has removed the sample precipitation data form from the Final Permit.

Regarding monitoring costs, while the Final Permit requires increased monitoring relative to the 1992 Permit requirements, EPA has re-examined the monitoring requirements and reduced the monitoring frequency for most of the parameters on the DMR due to PEDDA's feasibility and other concerns. See Response to Comment 2.A.IV.a above.

Regarding the SWPPP and maintenance of the water quality basin and forebays, the Final Permit only requires that PEDDA operate those technologies to ensure their continued effectiveness. Additionally, the cost of BMPs included in the SWPPP has been considered as part of EPA's assessment of BAT limits for TSS. See Response to Comment 2.A.IV.a above. Finally, PEDDA is only required to perform BMPs on its own property, not the upper 91 acres identified in the above comment.

For a discussion of the costs of continued use of PEDDA's updated wet basin, see Response to Comment 2.A.IV.a above. Ultimately, EPA expects that continued operation of PEDDA's current technology to meet the limits and conditions set forth in the final permit is minimal and economically feasible.

Ultimately, the final permit has been modified to reduce the frequency of WET testing, reduce monitoring frequency for numerous other parameters, and has also been modified to include BMPs, many of which were proposed by PEDDA in its comments, in lieu of numeric limitations for PCBs. Given these modifications, the costs associated with compliance have decreased significantly.

Comment V. Best Management Practices provide Appropriate Protection**Comment V.a. Purpose and Use of BMPs**

Although, for the reasons described earlier, PEDDA does not agree that EPA has the authority to require reductions in the PCB content of stormwater discharges from the PEDDA property, PEDDA does share EPA's concern for environmental quality. PEDDA is committed to implementing reasonable measures to continue reducing the PCB content of discharges from the WSBP. The BMPs already implemented and the future BMP approach described herein is the foundation of those efforts.

Early consideration of future BMPs for the PEDDA property has involved a tailored and substantially unconventional perspective, with the goal of addressing site-specific PCB loads in stormwater runoff and other regulatory concerns by incorporating unusual and creative solutions. While it is common for stormwater BMPs to focus on infiltration of water, in this case, the team recognizes the merit of going further to adopt approaches related to stormwater harvesting and beneficial reuse. Hence, a suite of measures has been considered which reflects state-of-the-art stormwater handling BMPs based on capture, storage, and re-use of water through many progressive green infrastructure practices, while minimizing the use of many common measures.

Response to Comment V.a.

EPA agrees that BMPs will be critical to meeting water quality standards. EPA appreciates the types of BMPs presented in the comment and has listed these among BMP approaches for PEDDA to consider. The specific BMP requirements in the final permit are described further in Response to Comment 2.V.c. EPA has determined that non-numeric, water quality-based limits (e.g., BMPs) are sufficient to meet SWQSSs for PCBs based on new information provided by commenters and additional updated analysis of the discharge.

Specifically, in the Fact Sheet accompanying the 2015 Draft Permit, EPA identified site-specific reasons for not relying on BMPs. Based on the comments received, EPA has assessed each of these and other concerns, and determined that the BMPs included in the Final permit alleviate the above-listed concerns, resolve any related issues, and successfully achieve compliance with Massachusetts surface water quality standards. Each is discussed in turn below.

1. PEDDA has conducted work to characterize PCB sources contributing to Outfall 001 and has identified the Teens Complex as a major source of PCBs to Outfall 001.
2. PCB source identification has been incorporated into the BMP requirements of the final permit.

3. Where a specific source of PCB contamination has been or will be identified, the means to eliminate this source has been specified in the final permit through an integrated BMP approach.
4. The infiltration of contaminated groundwater directly to the water quality basin is addressed by BMPs pertaining to the water quality basin, in the event this source is identified as a significant source of pollutants.
5. BMPs specifically designed to minimize recontamination of the sediment cleanup site in Silver Lake have been included in the final permit.

For all of the above reasons, EPA has determined that the site-specific BMPs included in the Final Permit ensure compliance with the Massachusetts surface water quality standards for PCBs, and therefore, satisfy the requirements of the Clean Water Act.

The BMP approach included in the Final Permit is described fully in Response to Comment 2.A.V.c, below.

Comment V.b. Benefits of BMP Approach

Green infrastructure has been supported by EPA, as described in the April 2011 memorandum from Acting Assistant Administrator Nancy Stoner to EPA Regional Administrators (attached as Exhibit H). Recognizing that green infrastructure offers many advantages in terms of sustainability and community livability, climate change mitigation and adaptation, and practical as well as affordable solutions, the memo emphasizes EPA's current preference for rainwater infiltration, evapotranspiration, and harvesting. Citing several examples, including in Massachusetts, where MS4 permit drafts and various NPDES enforcement actions had recently adopted approaches incorporating green infrastructure. The memo also mentions the cross-agency activity to promote wider understanding and recognition of when and how to best incorporate green infrastructure, while relying upon sound modeling and technical approaches. Green infrastructure has also been practiced in Massachusetts for over 20 years, with abundant examples of BMPs successfully deployed in a variety of settings, including urban brownfields redevelopment and Superfund sites (Exhibit I). BMP approaches are well suited to cold climates and can deliver consistent long-run performance. Additional benefits of BMP-based stormwater management approaches include:

- Improving watershed function beyond the site scale;
- Improving neighborhood landscape aesthetics through greenspace;
- Mitigating urban heat island effects through evapotranspiration and cooling;
- Creating, improving, or protecting terrestrial and aquatic habitat;
- Naturally capturing and storing carbon from the atmosphere;
- Providing flood resilience in the face of peak rainfall trends, and;
- Incorporating native plant species, and
- Offering some benefits to urban air quality (e.g., particulates and ozone).

The specific BMPs which have thus far been identified for consideration on the PEDA property build upon the many lessons learned throughout the history of use outlined above. However they also tackle the additional site-specific and context-sensitive issues unique to the contaminants of concern and the complex decades-long regulatory processes which apply to the property. The main purpose of the BMPs is to reduce runoff through source control. By reducing volumes and rates of stormwater flows, PEDA seeks to develop a stormwater management solution aligned with EPA's regulatory goals and general community interests. A cornerstone principle to achieve this objective is the interception of precipitation in order to store, reuse, evaporate, and convey it offsite free of PCB exposure. Infiltration is generally desirable for recharge of groundwater and maintenance of stream base flows, especially in urban areas deprived of natural levels of infiltration. However, care must be taken to balance risk and uncertainty stemming from PCB contaminated site conditions when pursuing overall watershed health and functionality.

Response to Comment V.b

EPA agrees with the benefits of BMP-based stormwater management approaches described above. While source control is a general non-numeric limitation in this permit based on requirements in EPA's MSGP (including designing good housekeeping measures and erosion and sediment controls), BMPs must also address other aspects of the discharge, such as runoff management practices to reduce stormwater runoff and evaluating and eliminating non-stormwater discharges.

To this end, EPA has included green infrastructure among the BMPs PEDA may incorporate into the control of stormwater and groundwater discharges. EPA agrees that such BMPs must be undertaken with care given the PCB-contaminated site conditions. As a result, green infrastructure BMPs are at PEDA's discretion, given the risks associated with disturbing contaminated environmental media. A discussion of the specific BMP requirements in the final permit are described in Response to Comment 2.A.V.c, below.

Comment V.c. Technical Support for BMPs

(i) Conceptual Plans for Proposed BMPs

Various BMPs are under consideration for inclusion in a conceptual plan for the PEDA property. Some BMPs are practical to consider prior to and/or separate from site redevelopment actions, whereas others must be deployed in an integrated manner with future site redevelopment actions, and would depend on compatible design and operations and maintenance preferences. Some further BMPs could potentially be identified and included in a conceptual master plan, yet their implementation could be conducted later, either as parcels are redeveloped, or as additional needs or limitations become evident in the future. The current list of BMPs is in draft form, and continues to be expanded, reviewed, and refined. Alternative combinations and arrangements of BMPs will continue to be examined in order to develop a recommended Conceptual Plan,

and eventually a complete Master Plan. Categories for potential conceptual BMPs are as follows:

BMPs Suited for Early Implementation

- Diversion of municipal storm water flows to Pittsfield's separate MS4 permitted system, avoiding regulatory issues associated with terms of the PEDAs individual discharge permit;
- Incorporation of green infrastructure measures within areas such as streetscapes, vacant lots, riparian corridors;
- Installation of sensor controlled valves to allow in-pipe storage of collected storm water volumes;
- Deployment of innovative passive remediation measures (potentially targeting PCBs, nutrients, metals, and other contaminants identified) within storm water pipes and/or water quality basin;
- Carefully targeted infiltration;
- Targeted cleaning of the older piping systems in the northern sections of the PEDAs property.

BMPs Requiring Implementation Integrated with Future Redevelopment Actions

- Green roof systems on buildings;
- Cisterns for storing runoff from buildings and paved areas;
- Reuse of runoff for irrigation, cooling towers, toilet flushing, truck washing, and other operational needs that may exist;
- Relining, reconditioning, replacement, and/or other modification of existing storm water pipe network within PEDAs property, as may better suit spatial layout and economic priorities of future site occupants.

BMPs Suitable for Inclusion on an As-Needed Basis Dependent on Future Development Actions and Ongoing Monitoring and Assessment

- Storage capacity enhancement of water quality basin through remotely controlled discharge valves;
- Beneficial reuse of water quality basin stored volume for irrigation and other purposes as above;
- Bioswales and biobasins coordinated with newly constructed buildings and paved areas;
- Porous paving for parking, paths, and other light-duty surfaces.

Response to Comment V.c.

EPA thanks PEDAs for the thoughtful BMP framework submitted in this comment. EPA agrees that BMPs, including the types described in the comment, will ensure compliance with water quality standards.

As previously described, BMPs may be expressly incorporated into a permit on a case-by-case basis under specific circumstances, including where it is determined that they are infeasible or necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. *See* 40 CFR § 122.44(k). Specifically, EPA has determined that numeric PCB limits would be infeasible, and the BMP approach outlined in this and other responses will ensure compliance with Massachusetts SWQSSs for PCBs and section 301 of the CWA. Therefore, a numeric WQBEL is no longer included in the Final Permit. *See* Response to Comment 2.A.IV.a above.

The Final Permit continues to require the selection, design, implementation, and maintenance of control measures for stormwater associated with site activities in the Final Permit. However, as described elsewhere in this document, EPA agrees that several of these requirements can be made more consistent with EPA's MSGP and the EPA Region 1 RGP. Given that the discharge consists of stormwater associated with industrial activity and groundwater infiltration from a Superfund site, the Final Permit includes the general requirements (non-numeric limitations and conditions), including BMPs from EPA's MSGP and RGP as applicable, and as described below.

Non-numeric limitations in Part 2.1.2 of EPA's 2021 MSGP²⁸ as applicable to this site include:

- Minimize exposure of former industrial activity areas to stormwater discharges;
- Design good housekeeping measures to maintain areas that are potential sources of pollutants;
- Implement preventative maintenance programs to avoid leaks, spills, and other releases of pollutants to stormwater that is discharged to receiving waters;
- Implement spill prevention and response procedures to ensure effective response to spills and leaks if or when they occur;
- Design erosion and sediment controls to stabilize exposed areas and contain runoff using structural and/or non-structural control measures to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants;
- Utilize stormwater management practices to divert, infiltrate, reuse, contain, or otherwise reduce stormwater to minimize pollutants in the discharge;
- Enclose or cover storage piles for salt or materials containing chlorides that are used for snow and ice control;
- Conduct employee training to ensure personnel understand the requirements of this permit;
- Evaluate for the presence of non-stormwater discharges. Any non-stormwater discharges not explicitly authorized in the permit or covered by another NPDES permit must be eliminated; and
- Minimize dust generation and vehicle tracking of industrial materials.

²⁸ The 2021 MSGP is currently available at: <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities-epas-2021-msgp>

Further, water quality-based effluent limitations in EPA's 2021 MSGP require that the discharge must be controlled as necessary to meet applicable water quality standards (i.e., your discharge must not cause or contribute to an exceedance of applicable water quality standards). EPA expects that compliance with the conditions in this permit will control discharges as necessary to meet applicable water quality standards. Thus, a similar narrative limitation was included in the Draft Permit and is retained in the Final Permit at Part I.A.2.

In addition, other relevant requirements in EPA's 2021 MSGP, which are applicable to all permittees, are included in the Final Permit as follows:

- Comply with the control measure requirements in Part 2.1 and 2.1.1 of the 2021 MSGP to identify pollutant sources, and select, design, install and maintain the pollution control technology necessary to meet the effluent limitations in the permit that ensure dilution is not used as a form of treatment;²⁹
- Comply with the inspection requirements in Part 3.1 and 3.2 of the 2021 MSGP to conduct routine site inspections;
- Comply with the requirements in Part 5.1.1 through 5.1.4 of the 2021 MSGP if at any time the permittee becomes aware, or EPA determines, that the discharge exceeds any effluent limitation, or does not meet applicable water quality standards;³⁰
- Comply with the SWPPP requirements in Part 6 of the 2021 MSGP.

Finally, EPA reviewed the general limitations in the 2017 RGP for applicability to the site because PEDA's discharge includes infiltration of groundwater from the Superfund site. Control measures in Part 2.5.2 of EPA's 2017 RGP³¹ as applicable to this site include:

- Implement Quality Assurance/Quality Control to document monitoring requirements, sample collection procedures, sample analysis procedures,³² a schedule for the review of sample results and data validation and reporting processes.

In addition to the general permit limitations described above, EPA has concluded, in agreement with PEDA, that additional site-specific BMP requirements for the control of PCBs in discharges from the site are necessary to meet Massachusetts SWQSSs. Site evaluations to date indicate that substantial portion of the PCB load to the water

²⁹ See Part 2.5.2.d of the 2017 RGP for example technologies and additional resources.

³⁰ Where the MSGP refers to limitations, conditions or benchmarks, including the SWPPP, for the purposes of this permit, these shall refer to the limitations and conditions in this permit.

³¹ The 2017 RGP is currently available at: <https://www.epa.gov/npdes-permits/remediation-general-permit-rgp-massachusetts-new-hampshire>.

³² Sample analysis must comply with the *National Pollutant Discharge Elimination System (NPDES): Use of Sufficiently Sensitive Test Methods for Permit Applications and Reporting Rule*. See Fed. Reg. 49,001 (Aug. 19, 2014).

quality basin comes from the teens complex and up to 98% of the PCB mass loading to the water quality basin come from north of the railroad track (e.g., from the teens through the 40s complexes³³). As a result, EPA maintains that the most critical BMPs to eliminating discharges of PCBs via Outfall 001 and ensuring compliance with SWQSSs will be the elimination of discharges of PCBs from these areas to Outfall 001, as PEDAs itself proposed in a letter to EPA dated October 2013. Further, since PCBs easily bind to sediment particles, the BMPs for PCB removal are correlated with sediment removal BMPs (*i.e.*, those installed for TSS reduction). EPA expects that the PCB load can be treatable with a combination of storm drain/line cleaning, targeted street cleaning, bioretention facilities (sedimentation, specialized filters, and soil mixes). The site-specific BMPs included in the final permit combine a general, yet flexible approach site-wide, with specific BMP requirements in these two primary source areas (the teens through the 40s complexes).

Specifically, the final permit requires the evaluation, selection, design, implementation, and maintenance of a BMP program that eliminates discharges of PCBs through an iterative approach over the permit term, which must include the following:

- Source identification
- Optimization of existing infrastructure
- Minimization with control measures
- Evaluation of future design standards
- Ongoing assessment

The Final Permit requires the Permittee to document these components in the SWPPP. The Final Permit also requires the Permittee to submit a report annually to EPA certifying that discharges comply with these permit requirements and summarizing activities conducted to achieve such compliance.

1. Source Identification

The final permit requires identification of the components of the conveyance system and tracing the components that contribute PCBs to the discharge. Specifically, the conveyance system must be accurately mapped and the sources of PCBs contributing to the Outfall 001 must be specifically identified. The following potential sources must be evaluated, at a minimum:

- Residual presence of PCBs in soils, and other surfaces exposed to stormwater;

³³ Sept 30, 2013 letter to D. Webster; November 27, 2013 letter to D. Webster; PEDAs investigation summary in letters submitted by PEDAs dated June 14, 2013, July 10, 2013, Sept 26, 2013, Sept 30, 2013, October 16, 2013, October 28, 2013, and Nov 18, 2013; PEDAs's Sept 2013 Draft I, I, & M Stormwater management System Plan for North Side of the William Stanley Business Park and the Final Inspection, Monitoring And Maintenance Plan, Stormwater Management System, William Stanley Business Park Of The Berkshires, South Side Park, May 2013.

- Residual presence of PCBs in pipes, catch basins, and other conveyance system structures;
- Infiltration of groundwater into the conveyance system on PEDA property;
- Infiltration of groundwater directly into the water quality basin;
- PCBs in sediment in the forebays and water quality basin being re-suspended;
- Onflow from offsite that contributes to the Outfall 001 conveyance system; and
- Inflow from illicit connections to PEDA's conveyance system.

EPA notes that the permittee may rely on existing site characterization to the extent that it meets the identification requirements.

2. Optimization

The final permit requires evaluation, selection, design, implementation, and maintenance of abatement and removal activities for existing infrastructure as follows:

- Remove accumulated solids from the existing conveyance system, including, but not limited to: trunkline inlets/manholes, catch basins, sediment traps, sumps, which must include all of the 20s and 30s complex areas and Woodlawn Avenue adjacent to the 20s and 30s complex where owned or controlled by the Permittee, at a minimum;
- Remove accumulated solids from the existing forebays, and water quality basin;
- Complete line cleaning operations (e.g., jetting, vacuuming, removal, loading, storage, and/or transport), which must include the trunk line, manholes DMH 396 and DMH 27, and any remaining storm drain lines in the 40s to DMH 27³⁴;
- Conduct street sweeping at paved areas, which must include all of the 20s and 30s complex and Woodlawn Avenue adjacent to the 20s and 30s complex, at a minimum;
- Dispose of removed storm drain solids and liquids in accordance with applicable laws and regulations and document in the SWPPP;
- Enhance storage capacity of the water quality basin through upstream engineering controls, including, but not limited to: remotely controlled discharge valves, in-pipe and/or aboveground water storage, reuse systems, and passive remediation measures (e.g., infiltration through engineered media, targeted infiltration);³⁵
- Enhance storage capacity of the existing water quality basin;
- Inspect and evaluating the effectiveness of the optimization measures taken through routine site inspections, referenced above, and evaluation, described below.

³⁴ Refer to Final Permit Attachment B: Site Map

³⁵ Groundwater infiltration may not be discharged to surface water via a direct and immediate connection.

These BMPs are consistent with those suggested by PEDA, those included in the Draft Permit, and those found in Part 9.10.7.2 of EPA's 2021 MSGP,³⁶ which specifies Additional Effluent Limits for Discharges to Certain Impaired Waters and Sediment Cleanup Sites applicable to discharges to a 303(d)-listed waterbody (Category 5), or a sediment cleanup site in certain parts of the U.S. either directly or indirectly through a stormwater drainage system. Given that the discharge is to a sediment cleanup site, and TSS is an indicator parameter used to control toxic pollutants that are readily transported by solids (i.e., PCBs), the Final Permit includes these BMPs for to address TSS as an indicator for PCBs in the Final Permit in addition to the numeric, technology-based effluent limitations applied to TSS described above. These requirements include specificity for the significant source areas at the site.

3. Minimization

The Final Permit requires the evaluation, selection, design, implementation, and maintenance of new control measures (i.e., BMPs) that eliminate or otherwise minimize the discharge of PCBs to the receiving water. Minimization must address source control and elimination of PCBs from soils, sediments, storm water and groundwater entering the conveyance system via inflow and infiltration, as follows:

- Disconnect the existing conveyance system identified as contributing PCBs to the discharge, including, at a minimum the current infrastructure from the Teens area through the 40s complex at the location where it combines with the City system that proceeds onto the Water Quality Basin and Outfall 001(e.g. to BMH 396), and must include: lines/trunkline, manholes, catch basins, sediment traps, and sumps; or
- Reline, recondition, replace or abandon in place existing conveyance system identified as contributing PCBs to the discharge, including, at a minimum the current infrastructure from the Teens area through the 40s complex at the location where it combines with the City system that proceeds onto the Water Quality Basin and Outfall 001(e.g. to BMH 396);
- If other modification is determined equivalent to elimination of PCB contributions (e.g., installation of active or passive treatment, diverting significant sources to sanitary sewer), notification must be provided to EPA for concurrence.
- Any future stormwater management infrastructure shall consist solely of new or slip-lined stormwater piping.

³⁶ EPA-821-R-04-014 is currently available at: <https://www.epa.gov/eg/effluent-guidelines-plan-support-documents>; The 2021 MSGP is currently available at: <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities-epas-2021-msgp>. The 2017 RGP is currently available at: <https://www.epa.gov/npdes-permits/remediation-general-permit-rgp-massachusetts-new-hampshire>.

4. Design Standards

The Final Permit requires evaluation, selection, design, and implementation of design standards (e.g., procedures and protocols) that eliminate the discharge of PCBs during and following site redevelopment as follows:

- Establish a frequency for routine cleaning for the conveyance system, including, but not limited to: trunkline inlets/manholes, catch basins, sediment traps, sumps, no less than annually, and that will ensure that no component shall be more than 50 percent full;
- Implement a frequency for routine cleaning for the forebays, and water quality basin, no less than annually, and that ensures proper operation and that will ensure the average thickness of debris does not exceed 12 inches in the forebays and the calculated pool volume in the water quality basin is not reduced by more than 25% due to sediment accumulation;
- Establish a frequency for routine street sweeping, no less than twice per year
- If any redevelopment results in new pavement, new catch basins, or new sediment treatment systems in the teens or 40s complexes, implement the optimization measures specified above for the existing infrastructure.
- Utilize green infrastructure measures where practicable, such as streetscapes, vacant lots, riparian corridors, green roof systems, cisterns, bioswales and biobasins, and porous paving;
- Reuse runoff for irrigation, toilet flushing, and other site needs that may exist, including beneficial reuse of stored volumes; and
- Minimize the hydraulic gradient that draws groundwater into the system, where practicable.

5. Evaluation

The Final Permit requires ongoing evaluation. The Permittee must maintain an accurate site plan depicting all drainage features and connections to the conveyance system. In addition, routine sampling for PCBs must be conducted no less than annually to assess areas to prioritize BMPs and to evaluate the effectiveness of BMPs and design standards. Specifically, the permittee must conduct representative sampling during both wet weather and dry weather conditions to determine:

- Influent concentration of total PCBs and estimated total annual load into the north forebay.
- Influent concentration of total PCBs and estimated total annual load into the south forebay.
- Effluent concentration of total PCBs and estimated total annual load discharging from outfall 001.
- Concentration of total PCBs in Silver Lake at the outlet.

EPA notes that the Permittee may rely on existing routine characterization conducted by both PEDA and GE, to the extent that it meets the identification requirements. For

the purposes of this permit, samples analyzed using test methods that are not currently listed in 40 CFR Part 136 (i.e., EPA Method 8082), are acceptable for characterization. This exception does not apply to the test method specified for compliance monitoring in the Final Permit.

EPA also notes that PEDA also proposed BMPs pertaining to disconnecting the portion of the City of Pittsfield MS4 pipes from Outfall 001. PEDA is directed above to evaluate if drainage from offsite contributes PCBs to the discharge. If onflow from the offsite 91 acres is found to contribute, such as by straining the capacity of the North Forebay and allowing PCB-laden sediments transported from the teens area to resuspend and discharge to Silver Lake, including during major storm events, PEDA is expected to include this area in its optimization, minimization and evaluation processes. Whether to separate this flow from the rest of the PEDA drainage system is a matter to be decided between PEDA and the City of Pittsfield, provided that any solution complies with the City's MS4 Permit and PEDA's individual NPDES Permit. See Comment 3.F (Pittsfield explains that it does not intend to explore "transferring PEDA's permit to the City and/or disconnecting the portion of the City's stormwater system that discharges into the PEDA's water quality basin.").

The purpose of these requirements is to eliminate the discharge of PCBs to waters of the United States. Again, they have been selected on a case-by-case basis based on those appropriate for this specific facility. *See* CWA §§ 301(b)(1)(C), 304(e), 402(a)(1); 40 CFR § 122.44(k). These requirements will ensure that discharges from the Facility will meet Massachusetts SWQSs pursuant to CWA § 301(b)(1)(C) and 40 CFR § 122.44(d)(1). Unless otherwise stated, the Permittee may select, design, install, implement and maintain BMPs as the Permittee deems appropriate to meet the permit requirements. The selection, design, installation, implementation and maintenance of control measures must be in accordance with good engineering practices and manufacturer's specifications and must take future conditions into consideration.

Regarding the iterative process, please see Response to Comment 2.A.V.d., below.

Comment V.d. Evaluation of Proposed BMPs

(i) Proposed Evaluation Process

Having recognized site-specific issues which must inform and guide the stormwater management approach for the PEDA property, the development of future plans (envisioned to be a Conceptual Plan and a Master Plan) will proceed based on evaluation of how individual BMPs can best provide acceptable outcomes. Over time, including through future engagement with parties beyond PEDA, the practical combination of BMPs will be devised through similar evaluation. The proposed process for evaluating BMPs will include assessment of multiple variables including:

- Efficacy for managing water quality (e.g., PCBs, nutrients, hydrocarbons, heavy metals, and other known or likely pollutants³⁷);
- Efficacy for managing water volume and rates (e.g., beneficial re-use, flood reduction, stream base flow maintenance);
- Habitat value, aesthetic character, community preferences, and other qualitative benefits;
- Cost of design, construction, operations and maintenance, and replacement;
- Willingness and ability of municipality and potentially interested future occupants and developers to fund and perform work;
- Documented performance under similar conditions;
- Innovative approaches worthy of expanded demonstration and monitoring;
- Alignment with regulatory mandates and/or preferences.

(ii) Potential Implementation Schedule

On pages 21 and 23 of the Draft Permit Fact Sheet, EPA invited comment on using a BMP-based approach to achieve the PCB effluent limits proposed in the Draft Permit. In that section of the Fact Sheet, EPA described details of a possible approach for developing a BMP-based approach. PEDA recognizes the merits of many of the specific BMP evaluation activities described on pages 21-23 of the Fact Sheet, but rather than offer specific comment on the details of the steps described by EPA, PEDA has in these comments stepped back to take a broader and fresh look at stormwater management alternatives. We present below a tentative schedule of activities developed from this fresh perspective. PEDA proposes that PEDA, EPA, and MassDEP, with participation of the City and other relevant parties, as appropriate, enter into discussions to blend the best elements of the approach laid out below and the approach described in the EPA Fact Sheet into a BMP implementation compliance schedule. Our expectation is that such a compliance schedule, developed to be completed within the term of the permit, will allow EPA and MassDEP to postpone implementing numerical water quality-based effluent limits for Outfall 001. We further expect that this approach will be successful and lead to the late conclusion that the discharge permitting for Outfall 001 can be based on a creative and tailored BMP approach consistent with the April 2011 Nancy Stoner memo rather than numerical water-quality based limits. PEDA looks forward to engaging EPA, MassDEP, the City and other relevant parties in constructive discussions to arrive a mutually agreeable plan.

The process that PEDA proposes will include the following tasks, in roughly sequential (and potentially iterative) order. PEDA is prepared to adopt the following general schedule, however, any schedule is completely dependent upon receipt of adequate funding, cooperation of the City and agreement of EPA and MassDEP. As such, this schedule is to be considered illustrative of the process, rather than a proposed actual

³⁷ Nutrients, hydrocarbons, and heavy metals are not currently known or expected pollutants associated with runoff from the WSBP. Future developments that include more vehicle traffic and parking, and various landscaping features, could, however introduce these potential pollutants in the future.

schedule. All durations in the plan below are stated in terms of elapsed time from the effective date of the permit.

- Prepare initial list of BMPs: within 3 months
- Commence sampling/testing to further characterize soil, water, and infrastructure existing conditions to inform BMP siting/design alternatives: within 6 months
- Evaluate likely BMP efficacy: within 8 months
- Identify potential siting for BMPs: within 9 months
- Characterize potential for sequential arrangement of BMPs (to establish multi-phase treatment trials for targeted pollutants): within 10 months
- Coordinate with identified stakeholders for feedback: within 12 months
- Refine conceptual BMP list: within 14 months
- Refine conceptual BMP siting: within 15 months
- Conduct risk-informed benefit cost assessment of conceptual BMP plan alternatives: within 16 months
- Assess conceptual BMP plan in light of informal sampling/testing described above: within 16 months
- Prepare draft recommended BMP conceptual master plan: within 18 months
- Coordinate again with stakeholders for feedback: within 20 months
- Finalize BMP Conceptual Master Plan within 22 months³⁸
- Begin implementing elements of the BMP Conceptual Master Plan, with monitoring as appropriate
- Prepare annual reports as describe on page 23 of the Fact Sheet
- Prepare a summary BMP validation report to be submitted within 54 months.
- Refine and update BMP Master Plan in accordance with site development future activity 2017 and beyond
- Perform ongoing monitoring of storm water discharge 2015 and beyond

Response to Comment V.d.

EPA thanks PEDA for submitting a general schedule for BMP implementation in its comment. EPA agrees that an iterative process similar to the process described in the comment is appropriate.

Massachusetts regulations for schedules of compliance can be found at 314 CMR 3.11(10). Any schedule of compliance requires compliance “as soon as possible, but not later than the applicable statutory deadline under the CWA.” Further, if a permit establishes a schedule of compliance which exceeds one year from the date of permit issuance, the schedule must include interim requirements and the dates for their achievement. *See* 40 CFR § 122.47(a). The Final Permit includes a

³⁸ This milestone is similar to the “PCB Loading and BMP Selection and Commitment Report” described on Fact Sheet, page 21, though the Conceptual Master Plan includes a more comprehensive evaluation of certain issues and hence requires more time to prepare.

compliance schedule of five years from the effective date of the final permit to meet the new BMP requirements included in the final permit. EPA determined that this compliance schedule is appropriate because the final permit BMP requirements may include physical modification of the existing infrastructure.

The final permit imposes the compliance schedule through an iterative process designed by PEDA within a framework of measurement goals and timeframes specified as follows in the final permit.

The following must be completed within 120 days of the permit effective date and no later than January 15th of each calendar year thereafter:

- Submit written notification to EPA of completion and certification of the SWPPP, attaching a complete copy of the SWPPP and certification.
- Submit a written proposal for the BMPs required in Part I.C.2.b. to EPA that includes the following:
 - Description of proposed BMPs for the calendar year, including technical specifications;
 - Description of the measurable goal(s) for each BMP, including a schedule, with milestones as prioritized based on source identification, for its implementation that do not exceed the expiration date of this permit, have a quantity or quality associated with its endpoint, and a measure of assessment associated with it;
 - Description of how these BMPs will achieve compliance with numeric limits in Part I.A.1, and non-numeric limits in Part I.C.2.a.; and
 - The person(s) or entity responsible for each BMP.

The following must be included in the SWPPP within one year of the permit effective date and updated annually thereafter:

- Documentation of the selection, design, implementation, and maintenance of control measures required in Part I.C.2.b.1. that includes a description of the BMPs implemented to date.
- Written procedures for the inspection requirements in Part I.C.2.b.2., including schedules and forms necessary to conduct routine site inspections; documentation of compliance with inspection requirements must be included.
- Written procedures for the corrective action requirements in Part I.C.2.b.3.; documentation of any corrective actions undertaken during the previous calendar year must be included.
- Written quality assurance/quality control requirements in Part I.C.2.b.4.; documentation of monitoring requirements, sample collection procedures, sample analysis procedures, a schedule for the review of sample results, and data validation and reporting processes must be included.
- Documentation of the selection, design, implementation, and maintenance of BMPs required in Part I.C.2.b.5. to minimize the discharge of nutrients, including nitrogen and phosphorus.

- Documentation of the selection, design, implementation, and maintenance of BMPs to eliminate discharges of PCBs. The documentation must include, at a minimum:
 - Documentation of the source identification requirements in Part I.C.2.c.1. completed to date.
 - Documentation of the optimization requirements in Part I.C.2.c.2. completed to date.
 - Documentation of the minimization requirements in Part I.C.2.c.3. completed to date and must include the components listed in Part I.C.3.a.(2), above.
 - Documentation of the design standards requirements (e.g., procedures and protocols) in Part I.C.2.c.4. completed to date.
 - Documentation of the evaluation requirements in Part I.C.2.c.5. completed to date.

The following information must be included in the SWPPP within five (5) years of the permit effective date and updated annually thereafter, in the event this permit is administratively continued following expiration:

- Description of the BMPs completed (or updated, in the event of expiration).
- Confirmation that these BMPs have achieved (or continue to achieve, in the event of expiration) compliance with numeric limits in Part I.A.1, and non-numeric limits in Part I.C.2.a.
- Description of requested SWPPP, BMP and/or Compliance Schedule considerations for permit reissuance.

Certain steps of the iterative process require notification to EPA. The final permit specifies that the Permittee submit such notifications to EPA in writing. EPA will notify the Permittee in writing of any deficiency within 30 days following receipt of notification to EPA.

B. Comments from General Electric Company, dated June 4, 2015

Comment I. Introduction and Summary

Comment I.a. Introduction

In 1999, the General Electric Company (GE), the U.S. Environmental Protection Agency (EPA), the Massachusetts Department of Environmental Protection (MassDEP), and other parties entered into a comprehensive Consent Decree (CD), approved by a federal court in 2000, to address environmental conditions at the former GE plant site, Silver Lake, and the Housatonic River and environs. The CD established specific cleanup standards for polychlorinated biphenyls (PCBs) in soils and groundwater on the former GE plant site, and the parties fully understood that cleanup to those standards would allow residual levels of PCBs to remain in the soil where they would come into contact with stormwater, as well as in groundwater in the area. EPA and MassDEP determined that achievement of those cleanup standards is fully protective of human health and the

environment, and agreed that no further remedial work would be required – promises that were put into the CD in a series of binding covenants. GE subsequently transferred portions of its former plant site to the Pittsfield Economic Development Authority (PEDA). Prior to the transfer, GE completed everything required of it under the CD at those portions of the site, and EPA certified that the cleanup was complete and met all standards.

Now, in this proceeding, EPA in conjunction with MassDEP has proposed a stormwater discharge permit for PEDA that is premised on a revisionist determination – that the soil and groundwater cleanup standards are not protective of human health and the environment, because stormwater coming into contact with the soils can pick up trace levels of PCBs and groundwater might enter stormwater conveyances that discharge to Silver Lake. The proposed permit contradicts EPA’s and MassDEP’s clear pronouncement in the CD that the remediation is fully protective of human health and the environment, and would violate the covenants that are central to the agreement embodied in the CD.

Against this background, GE submits these comments on draft reissued National Pollutant Discharge Elimination System (NPDES) permit no. MA0040231 issued by EPA jointly with MassDEP in early April 2015 for public comment. This draft permit under the federal Clean Water Act (CWA) and the comparable state law would cover the discharge of stormwater by PEDA from a water quality basin on its property – part of the former GE plant site known as the 30s Complex – to Silver Lake in Pittsfield, Massachusetts through Outfall 001. The draft permit would impose an effluent limitation for PCBs of 0.000064 micrograms per liter ($\mu\text{g/L}$), based on EPA’s health-based national ambient water quality criterion at the same level. However, recognizing that that limitation is several orders of magnitude below detection capabilities with current analytical methods, it would establish a PCB compliance level at the minimum level (ML) of analysis, based on the lowest level for reliable measurement of PCBs, which must be no higher than 0.022 $\mu\text{g/L}$.

EPA has not identified any known technology that would allow achievement of the proposed PCB effluent limitation of 0.000064 $\mu\text{g/L}$; and as noted above, it recognizes that that level cannot be reliably measured. At a minimum, to ensure compliance with the proposed permit, PEDA would need to construct a large-scale carbon-based water treatment plant and operate it continuously for an indefinite period. While EPA describes an alternative approach of using Best Management Practices (BMPs), instead of a numerical effluent limit, to address PCBs in stormwater, it has not proposed to allow PEDA to use that approach.

Response to Comment I.a.

As a preliminary note, the CWA requires that any addition of any “pollutant” or combination of pollutants to “waters of the United States” from any “point source,” requires a NPDES permit issued under sections 307, 402, 318, and 405 of the Act. As set forth in 40 CFR § 122.2, the definition of pollutant specifically includes industrial, municipal, and agricultural wastes. EPA’s issuance of this

Final Permit authorizes PEDDA to discharge pollutants through Outfall 001, pursuant to the CWA and its regulations. As has been explained throughout this document, the final permit is not a *stormwater* permit and instead authorizes PEDDA's discharge from Outfall 001, which includes both stormwater from the PEDDA property and significant material remaining from former industrial activity (i.e., groundwater).

As discussed in more detail throughout this document, this Permit and the conditions and limitations included within do not conflict with or violate the Consent Decree entered into by GE, MassDEP, EPA, and the City of Pittsfield, or the Covenants included in the Decree and later extended to PEDDA. See Responses to Comments 2.A.III.a and 2.A.III.b.

Importantly, much of GE's concern is focused on the numeric PCB limitations included in the 2015 Draft Permit. EPA has determined that a BMP approach is appropriate, and has removed the numeric PCB requirements from the Final Permit. See Responses to Comments 2.A.V.a through d and Section I.C. of the Final Permit (discussion of BMPs) and Response to Comment 2.A.IV.a (PCB detection level).

Comment I.b. Summary

This draft permit conflicts with the comprehensive agreement that was reached by EPA, MassDEP, GE, PEDDA, and others in 1999 for cleanup of the former GE plant site in Pittsfield (which now contains the PEDDA property) and adjacent areas, including Silver Lake. That agreement was embodied in the CD for the GE-Pittsfield/Housatonic River Site (the Site), which was entered into pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA) and was approved by the federal district court in 2000.

The CD established a set of cleanup performance standards for soil and groundwater, as well as for Silver Lake, and required the implementation of a series of cleanup actions to achieve those standards. Those standards did not require the removal of all PCBs from the areas addressed, but allow specified levels of PCBs to remain in both soil and groundwater, which could thus be discharged to Silver Lake. Nevertheless, the parties determined, and EPA and MassDEP explicitly stated in the CD, that achievement of those standards would be fully protective of human health and the environment. Moreover, both EPA and MassDEP agreed in the CD that, if the cleanup actions attained those standards, those Agencies would not require GE to conduct additional actions to address the residual PCB levels, unless the Agencies showed that there was new information demonstrating that the cleanup was no longer protective. EPA later extended that same agreement to PEDDA in a prospective purchaser agreement (PPA).

All applicable cleanup performance standards under the CD have been achieved in the PEDDA areas at the former GE plant site, as well as in Silver Lake. The PCB levels in PEDDA's stormwater discharge are what would be expected given the residual PCB levels in the soils and groundwater that are allowed by the CD standards. However, EPA is now

attempting, through the draft NPDES permit, to circumvent its prior determination and agreement by requiring PEDDA to perform additional actions to address the very same PCB levels that it previously determined were protective. In other words, it is attempting to use the NPDES process under the CWA to change the rules that it previously agreed to.

EPA claims that it has no choice but to issue the NPDES permit with the specified effluent limitations. That is not the case. EPA previously agreed that, if the CD performance standards were met, it would not use the CWA to require additional actions to address the residual PCB levels allowed by those standards. Moreover, under the CWA, there are at least three different administrative mechanisms available to EPA to issue the permit without violating its prior agreement. First, EPA could conduct a use attainability analysis to “right-grade” the water quality standards for Silver Lake, consistent with the determinations that EPA has already made in the CD. Second, EPA could grant PEDDA a variance from the currently applicable water quality standards, subject to periodic review and revision. Third, EPA could impose non-numerical water quality-based effluent limitations in the form of BMPs in lieu of the currently proposed numerical limits, again subject to periodic review and revision. Each of these mechanisms is allowable under the CWA and each provides EPA with the “choice” that it claims not to have.³⁹

Response to Comment I.b.

GE provides an overview of its specific comments on the Draft Permit. Because each of the issues identified is fleshed out in greater detail in the comments that follow, EPA will not address these issues here and will instead respond to each of the specific comments.

However, as a preliminary note, EPA disagrees with GE’s characterizations of the purpose, intentions, and conclusions underlying the Consent Decree, but they are in any case irrelevant from the standpoint of EPA’s authorization, and indeed obligation, to issue an NPDES permit that is sufficiently stringent to meet the requirements of the Act. EPA made no “promises” that it would not implement the Clean Water Act and its regulations, nor did it ever claim that completion of CERCLA and/or RCRA remedial/corrective actions barred future NPDES program implementation. See Responses to Comments 2.I, 2.III.a, and 2.III.b.

Comment II. Conflict with Consent Decree and Agreement with PEDDA

EPA’s and MassDEP’s issuance of the draft permit to PEDDA in its current form would conflict with the CD for the Site, to which EPA, MassDEP, GE, and PEDDA are all parties, as well as with the separate agreement between EPA and PEDDA extending the CD covenants to PEDDA. As such, it would be unlawful.

³⁹ In addition, as discussed in Section IV of these comments, GE questions whether PEDDA is subject to the NPDES permit program at all given that its current operations do not fall into any of the categories of activities specified in EPA regulations as requiring a stormwater permit.

In its Fact Sheet for the draft PEDA permit (p. 6), EPA argued against this position, broadly stating that the NPDES program under the CWA, which governs the discharge of pollutants into surface waters, “serves a different statutory purpose from CERCLA and RCRA cleanup programs,” which govern the cleanup of contaminants that have already been released or for which there is a threat of release. Thus, EPA asserted that “[n]othing in [the CD] limits EPA’s authority to issue an NPDES permit consistent with the CWA or to impose limitations on discharges authorized by the permit” (id.). As shown below, this argument is plainly incorrect.

Response to Comment II.

GE states that EPA does not have authority to issue the 2015 Draft Permit because conditions and limitations included within conflict with the Consent Decree. This assessment is incorrect for the numerous reasons outlined in EPA’s detailed responses to Comments 2.I, 2.III.a, and 2.III.b.

Comment II.a. The Draft Permit Conflicts with the Consent Decree

The CD represents a comprehensive agreement among the parties to address PCBs and other contaminants present at the Site, including releases to surface waters at the Site, and contains a determination, approved by the federal district court, that the actions required to do so will protect human health and the environment. Based on an understanding of the conditions at the Site, including discharges to surface waters, the CD specified a set of Performance Standards for soil, sediment, and groundwater and required the implementation of a series of response actions to achieve those Performance Standards. Those response actions included Removal Actions for the PEDA areas (which include the former 30s, 20s, and 40s Complexes and the western portion of East Street Area 2-North) and the Silver Lake Area (including the Lake itself). (See map provided as Figure 2-1 to Statement of Work for Removal Actions Outside the River [SOW; Appendix E to CD].) (The relevant provisions of the CD and the SOW cited herein are included in Exhibit A.)

Response to Comment II.a.

See Response to Comment 2.A.III.a above for background and discussion of the interactions between the Consent Decree and CWA NPDES program.

Responses to Comments 2.B.II.a.1 to 2.B.II.a.4 below provide more detail on the Decree provisions referenced by GE in its comments. None of these provisions shows any intent by the Decree parties to negate or limit EPA’s NPDES permitting authority through the Decree.

Comment II.a.1. The Agencies’ protectiveness determination

Paragraph 8.b of the CD contains a determination by EPA and MassDEP that the Removal Actions under the CD, once completed (including achievement of the Performance Standards), “are protective of human health and the environment with respect to the areas addressed by those Removal Actions,” and that, “[e]xcept as

expressly provided in [the CD], no further response actions for the areas addressed by such Removal Actions are necessary to protect human health and the environment.” (The exception mentioned in this provision refers to the covenant “reopener” provisions, described in Section II.B.1 below, allowing EPA to require further response actions if there is new information or conditions indicating that a response action under the CD is no longer protective of human health or the environment (CD ¶¶ 162-163].)

Response to Comment II.a.1.

The Removal Actions were conducted under the Consent Decree pursuant to CERCLA. As stated in EPA’s 2015 Fact Sheet as well as in its Responses to Comments 2.A.I, 2.A.III.a and 2.A.III.b, CERCLA and the CWA serve two distinct purposes. That the Removal Actions, once completed, are deemed “protective of human health and the environment,” and achieve the statutory goals defined by CERCLA does not mean that these actions achieve the goals of the CWA. More importantly, nothing in the Consent Decree precludes or limits EPA’s implementation of the NPDES program. It is simply beyond the intention or authority of the parties to the Consent Decree to eviscerate the CWA mandates and statutory requirements at or near this site indefinitely.

Comment II.a.2. Completion of CD response actions and achievement of Performance Standards

The areas owned by PEDDA from which the PCBs in its stormwater discharge originate have met the applicable CD requirements, including achievement of the Performance Standards. The soils in those areas, including the former 30s Complex, were evaluated under the applicable CD Performance Standards. Those evaluations demonstrated that, following remediation (where required), the same soils that contact the stormwater discharged to Silver Lake met the Performance Standards previously determined by EPA and MassDEP to be protective. In fact, EPA issued Certificates of Completion for the 30s Complex and the other PEDDA areas, stating that those Removal Actions were completed and that the Performance Standards were met, before those areas were transferred to PEDDA (copies included in Exhibit B).

The Performance Standards plainly authorize certain residual levels of PCBs to be left in the soil, which could thus be present in discharges to Silver Lake. For example, the PCB Performance Standard for surface soil in commercial/industrial areas, such as the PEDDA areas, is an average of 25 parts per million (ppm) (CD ¶ 25.a(iii); SOW at p. 26). It is clear, based on information that was available at the time the CD was executed, that that soil Performance Standard, which EPA and MassDEP agreed was fully protective, allows stormwater contacting such soil to have PCB concentrations far higher than the proposed NPDES effluent limitation of 0.000064 µg/L or the proposed compliance level of 0.022 µg/L. As an illustration, as shown in Exhibit C, based on the median concentration of total suspended solids (TSS) in urban runoff at commercial and mixed land-use sites (approximately 70 mg/L) as reported in a comprehensive EPA study conducted in 1979-1983, soils containing an average PCB concentration of 25 ppm would be expected to produce PCB concentrations of approximately 1.8 µg/L in stormwater.

In addition, the groundwater in the subject area, which EPA claims infiltrates into PEDAs stormwater collection systems and its water quality basin and thus (according to EPA) contributes to PCBs in the discharge from Outfall 001 (EPA Fact Sheet at p. 20), is subject to regulation under the CD as part of Groundwater Management Area (GMA) 1. The Performance Standard for that groundwater, insofar as it relates to discharges to surface water, is achievement of the Massachusetts Contingency Plan (MCP) Method 1 GW-3 groundwater standards (which have been developed to prevent adverse impacts on surface water) in perimeter monitoring wells (SOW at p. 82). Based on groundwater monitoring, all groundwater in this area has met the MCP Method 1 GW-3 standards for years,⁴⁰ and thus, under the CD standards, is not adversely affecting the surface water into which it discharges. Moreover, PEDA submitted its plans for its water quality basin to both EPA and MassDEP, and MassDEP approved those plans through conditional approval letters dated April 7, 2009 and September 3, 2009 (copies provided in Exhibit E).

The area that receives PEDAs stormwater discharge has likewise been remediated in accordance with the CD. Specifically, the Silver Lake Area Removal Action was completed in December 2013 and the Performance Standards have been met. A Final Completion Report for that Removal Action (reflecting comments from EPA) was submitted to EPA on May 20, 2015.

Since both the source area(s) and the receiving area for the PEDA discharge have met the applicable Performance Standards under the CD, they are covered by the CD determination in Paragraph 8.b that those areas are in a condition that is protective of human health and the environment (i.e., that the residual PCBs in those areas do not pose a danger to health or the environment), and that no further response actions are necessary to address those areas.

Response to Comment II.a.2.

See Responses to Comments 2.A.III.a through 2.A.III.d, for discussion about the SOW, performance standards, and ARARs applicability.

As for GE's mischaracterization of Paragraph 8.b, see Response to Comment 2.A.III.a above.

Finally, with respect the MassDEP's conditional letters that GE identified in its comment, it is clear from the text of those letters that future NPDES permits were contemplated and determined necessary to address PEDAs discharges from the then-proposed water quality basin, including PCBs present in those discharges. These letters further demonstrate that an NPDES permit has been consistently deemed necessary, despite upgrades to PEDAs infrastructure, and that it is not made unnecessary or limited by the Consent Decree.

⁴⁰ See GE's Baseline Assessment Final Report and Long-Term Monitoring Program Proposal for Groundwater Management Area 1 (ARCADIS, July 2014), at pp.36-38 & Table 8 at pp. 1-3 & 6-7 (copies provided in Exhibit D).

Comment II.a.3. EPA's impermissible attempt to require additional response actions through NPDES permit

EPA's effort to distinguish the NPDES program from the CERCLA and RCRA cleanup programs on the ground that the former regulates discharges to surface waters while the latter addresses cleanup of contaminants misses the point. While the CD does not preclude EPA from issuing or re-issuing an NPDES permit to PEDA, it does reflect the determination by EPA and MassDEP that, if the CD response actions are implemented, no additional response actions would be required to address the existing contamination at the Site, even if imposed through another mechanism such as an NPDES permit.

At the time of execution of the CD, the parties were well aware of the various potential sources of the PCBs that could be discharged from upland areas to the receiving waters, including PCBs in soils, on other surfaces, in groundwater, and in stormwater collection and piping systems. The Agencies nevertheless determined that, if the Removal Actions prescribed by the CD to address soil, sediment, and groundwater were carried out in accordance with the CD and achieved the specified Performance Standards (which clearly contemplated the presence of residual PCBs), they would be protective of "the areas addressed by those Removal Actions," and that no additional response actions would be necessary for those "areas" (CD ¶ 8.b; emphases added). While the effluent limitations in an NPDES permit do not directly regulate soil, sediment, or groundwater contamination, compliance with those limitations in the draft PEDA permit would require additional response actions in areas addressed by the Removal Actions and directed to the same historical PCB contamination addressed by those Removal Actions.

There is no question that the actions that PEDA would need to take to meet the permit's effluent limitation on PCBs constitute response actions as defined in CERCLA. Under CERCLA, response actions include both removal actions and remedial actions (CERCLA § 101(25)). The statutory definition of remedial action expressly includes "onsite treatment" (CERCLA § 101(24)), such as the water treatment plant that would be necessary to ensure compliance with the proposed effluent limitation. Moreover, if PEDA were required to take other actions to meet that limitation, the purpose of such actions would be to "prevent or minimize the release" of PCBs to Silver Lake in excess of EPA's health-based national ambient water quality criterion, which would plainly fall within the definitions of remedial as well as removal actions.⁴¹ Paragraph 8.b contains a determination that such additional response actions are not necessary in the Removal Action areas.

It is irrelevant to the current issue that the CD does not expressly preclude the need for an NPDES permit and even recognizes the existence of GE's then-current NPDES permit. The issue here relates to the substance of a new permit and what would be required to

⁴¹ Removal actions include any "actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare or to the environment, which may otherwise result from a release or threat of release" of a hazardous substance (CERCLA § 101(23)). Remedial actions mean actions, consistent with a permanent remedy, "to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment" (CERCLA § 101(24)).

comply with it. Where a new permit would require additional response actions to address an area where the CD Performance Standards have been met, that requirement cannot be reconciled with the Agencies' determination in the CD that no such requirements are necessary to protect health or the environment and that hence no such requirements would be imposed. The CD was meant to define the response actions that would be protective, and to prescribe the limited circumstances (reopeners) in which EPA or MassDEP might direct further response actions. The Agencies' use of an NPDES permit to require additional response actions would constitute an impermissible end run around the repose granted by the CD.⁴²

EPA has indicated that it has no choice but to include such an effluent limitation in PEDAs' reissued NPDES permit. The chief of the EPA Region 1 water permit branch has been quoted as saying: "What's in the permit are the limits and standards for safe levels for PCBs. . . . They are just handed to me. They are very stringent standards" (Berkshire Eagle, "Pittsfield Economic Development Authority wary of tough new standards for Silver Lake stormwater," April 28, 2015.) However, the CD already defines "safe levels for PCBs," and EPA's rationale does not justify inclusion of provisions in the permit that would require implementation of response actions that the Agency has previously agreed are not necessary to protect health or the environment. In fact, as discussed further in Section III below, EPA has other available options under the CWA – e.g., conducting a use attainability analysis for Silver Lake, granting a variance to PEDAs, or reissuing an NPDES permit that relies on BMPs rather than numerical effluent limitations.

Response to Comment II.a.3.

Again, EPA is not free to disregard the mandates of the Clean Water Act. Section 301 prohibits discharges of pollutants to a water of the United States, without authorization under Section 402 of the Act, pursuant to the NPDES program. Furthermore, Section 301(b)(1)(C) makes clear that any such permitted discharge must achieve compliance with state water quality standards. Thus, to the extent that the commenter suggests EPA has a "choice" to disregard these mandates and either not issue an NPDES permit at all for a prohibited discharge or to issue a permit that fails to comply with Massachusetts water quality standards, the commenter is incorrect.

EPA does, however, have a "choice" about *how* to write a permit that complies with the CWA and its implementing regulations, and most importantly, ensures compliance with the Massachusetts surface water quality standards. In this case, EPA determined that the Final Permit would include BMPs to ensure compliance with the Massachusetts surface water quality standards rather than numeric limits,

⁴² EPA's suggests in its Fact Sheet (p. 6) that the only way that a discharge to surface water may be authorized is through an NPDES permit under the CWA, and that thus "[n]othing in [the CD] limits EPA's authority . . . to impose limitations on discharges" through such a permit. This assertion ignores the fact that the CD authorizes residual levels of PCBs that result in stormwater containing PCB concentrations far higher than the proposed NPDES effluent limits.

which is consistent with one of the alternatives proposed by PEDA in its comments. See Response to Comment 2.V.a above.

To the extent that GE concludes that the proposed PCB limits applicable to PEDA's discharge constitute a response action or, more specifically, a "remedial action" under CERCLA, GE is mistaken. EPA's Draft Permit did not require specific remedial actions. Rather, the Draft Permit authorizes an otherwise unlawful discharge, so long as certain limits are achieved that ensure compliance with Massachusetts' water quality standards, as prescribed under the CWA. GE points to the CERCLA definition of remedial action, which reads:

. . . "remedial action" means those actions consistent with permanent remedy taken instead of or in addition to removal actions in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment. The term includes, but is not limited to, . . . *onsite treatment* or incineration, provision of alternative water supplies, and any monitoring reasonably required to assure that such actions protect the public health and welfare and the environment.

42 U.S.C. § 9601(24) (emphasis added). This definition explicitly demonstrates that remedial action is confined to the goals and purpose underlying CERCLA, which is to "prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment." The CWA has a distinctly different goal, "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). While remedial action, in some circumstances, includes onsite treatment, this does not mean that *any onsite treatment* is remedial action. Under GE's reading of the definition, any onsite treatment that is conducted, including voluntarily undertaken treatment, treatment required pursuant to state law programs, or treatment implemented through other federal statutes (e.g., the Safe Drinking Water Act) would amount to CERCLA remedial action. This result is outside the scope of CERCLA's goals and objectives and is clearly not what Congress contemplated when enacting this statute. Moreover, if the Agency wanted CERCLA to establish the floor for NPDES permit requirements, it would have said so. *See* 40 CFR § 122.49 (omitting CERCLA from its list of other federal laws that apply to the issuance of NPDES permits).

Additionally, GE bases its interpretation of the above definition on an incorrect assessment of the purpose of the proposed numeric PCB limits. The PCB limits are included to ensure compliance with state water quality standards (*see* 33 U.S.C. § 1311(b)(1)(C)), not to "prevent or minimize release of hazardous substances." Finally, and perhaps most importantly, the Draft Permit did not mandate any treatment or specific manner by which PEDA must meet the

proposed PCB limits. In fact, it did not require “onsite treatment” at all. Instead, the Draft Permit simply required that, by whatever means the permittee chooses, a discharge would only be *authorized* under the CWA if such discharge met the proposed numeric PCB limits that EPA determined would satisfy Massachusetts surface water quality standards. *See NRDC v. EPA*, 808 F.3d 556, 565 (2d Cir. 2015) (“[A] water quality-based permit limit begins with the premise that a certain level of water quality will be maintained, come what may, and places upon the permittee the responsibility for realizing that goal.” (citing *NRDC v. EPA*, 859 F.2d 156, 208 (D.C. Cir. 1988))). Thus, any argument that EPA’s permit required remedial or removal action is facially incorrect, and nothing in the Draft Permit suggests otherwise.

Ultimately, EPA did not include numeric PCB limits in the final permit, so the question of whether the limits constitute remedial action is not relevant.

Comment II.a.4. Other Supporting CD Provisions

Other provisions of the CD and the accompanying SOW (Appendix E to CD) further support the conclusion that the CD parties intended that no additional response actions beyond those specified in the CD would be required at the Site to address contamination resulting from NPDES-permitted discharges or exceedances of the national ambient water quality criteria (which are not Performance Standards under the CD).

Response to Comment II.a.4.

GE broadly comments that other provisions of the CD and Statement of Work suggest that additional response actions to address discharges under the CWA are in some way precluded. EPA will respond to each of the specific comments presented by GE in support of this larger comment in its responses to the comments below. See also Response to Comment 2.A.III.b above.

Comment II.a.4.a. Silver Lake Performance Standard

The SOW contains a Performance Standard that specifically addresses discharges into Silver Lake. That Performance Standard requires GE to conduct periodic sampling of the cap that GE has installed across Silver Lake; and it provides that if that sampling indicates the deposition of PCBs on the surface of the cap, “GE shall evaluate, to the extent practical, whether such PCBs are attributable to **sources other than** erosion of surface runoff from the banks or currently known **discharges of PCBs into the lake from NPDES-permitted [or] other outfalls**” (SOW at p. 77; emphases added). If the surface PCBs cannot be attributed to such other sources on GE property (e.g., to the extent that the PCBs are attributable to NPDES-permitted outfalls), “no further response actions shall be required to address such deposition on the surface of the cap,” except as otherwise required by the CD to address erosion or emergencies or by the CD covenant “reopeners” (id.).

This Performance Standard demonstrates the parties' recognition that NPDES-permitted discharges to Silver Lake would continue to contribute PCBs to the lake, and that if such discharges caused PCB deposition on the surface of the cap, no further response actions would be required to address them (except in circumstances not present here). While the draft NPDES permit does not specifically address the redeposition of PCBs on the surface of the Silver Lake cap, it would impose limitations on discharges to Silver Lake that would require PEDA to implement additional response actions on its property, as shown above. As an example, given this Performance Standard's specification that EPA cannot (unless it triggers the reopeners) use its CERCLA authority to compel response actions to address PCB discharges to the Lake that cause redeposition, it is clear that EPA could not achieve the same result under an NPDES permit. The same rationale applies to efforts to compel response actions to address other impacts in Silver Lake (e.g., exceedances of the national ambient water quality criteria), particularly when such impacts would be expected given the residual PCB levels allowed by the CD. Thus, this Performance Standard provides further evidence of the CD parties' intent that no additional response actions would be required to address contamination resulting from NPDES-permitted discharges.

Response to Comment II.a.4.a.

GE cites to the Performance Standards applicable to the Silver Lake removal action to suggest that the Consent Decree intended to limit future NPDES-permitting. As explained above, in Response to Comment 2.A.III.b, GE's interpretation of the Performance Standards, particularly the post-removal standards, is incorrect.

Additionally, nothing in this Final Permit constitutes a "response action," never mind a response action addressing redeposition of PCBs on the surface of the Silver Lake cap, which further demonstrates that the Performance Standard does not limit or preclude NPDES permitted discharges into Silver Lake. See Response to Comment 2.B.II.a.3.

Comment II.a.4.b. ARARs Table

The table included in the SOW specifying the applicable or relevant and appropriate requirements (ARARs) for the Removal Actions covered by the SOW identifies the federal and state ambient water quality criteria as ARARs, and provides that, "[i]f these criteria are not attained in surface waters at or adjacent to the Removal Action Areas, no further response actions to attain the criteria shall be required as part of these Removal Actions (beyond the actions described in the SOW), because EPA has determined that such further response actions are not practicable as part of these Removal Actions" (SOW Attachment B, Table 1 at p. 1). This provision reflects the parties' recognition that these water quality criteria may not be met in the surface waters at the Site (including Silver Lake), and their determination that no further response actions would be required

to attain those criteria.⁴³ Thus, this language is another reflection of the overall determination, embodied in CD Paragraph 8.b, that the CD Removal Actions and achievement of their Performance Standards are protective for the areas subject to them (regardless of whether they attain other criteria), and that no additional response actions would be required for those areas.

Response to Comment II.a.4.b.

See Response to Comment 2.A.III.b above.

GE's argument in the above comment fails for the following reasons.

First, in addition to the ARARs, the Decree requires, in Paragraph 8.a., that all Work required under the Decree be performed in accordance with the requirements of "all applicable federal and state laws and regulations." Nowhere in Paragraph 8.a., in the Decree's definitions section (Section IV), or anywhere else in the Decree, is the term "applicable" limited in time only to requirements in effect at the time of entry of the Decree. Thus, consistent with Paragraph 8.a., discharges from Outfall 001 must comply with any CWA requirements that are applicable at the time the discharges occur, including any NPDES permit issued consistent with those requirements.

Second, GE attempts to support its argument by reference to ARAR Table 1 (page 1),⁴⁴ which contains EPA's attainment determination for "relevant and appropriate" PCB-specific ARARs. The determination states that if ambient surface water quality criteria for PCBs are not met at or adjacent to the CERCLA Removal Actions Areas, "no further response actions to attain the criteria shall be required as part of such Removal Actions . . . , because EPA has determined that such further response actions are not practicable *as part of these Removal Actions*" (emphasis added). As stated in greater detail above, this language has no bearing on the conditions established by the NPDES permit, which implements CWA requirements that are "applicable" to point source discharges from the PEDA property. This quoted language simply governs the extent to which additional response actions as part of the Removal Actions would be required. See Response to Comment 2.A.III.b above.

Third, the ARARs tables further emphasize the scope of their applicability, namely that they only apply to the response actions at the site. As has been explained throughout this document, nothing included in the Final NPDES Permit

⁴³ The health-based national ambient water quality criterion listed in that table was the then-existing criterion of 0.00017 µg/L. The current national ambient water quality criterion of 0.000064 µg/L is even lower and thus even more unlikely to be attained. Indeed, EPA has continued to recognize that attainment of that criterion is not feasible in Massachusetts. In its draft modification of the Reissued RCRA Permit for the Rest of River portion of the Site, issued on May 30, 2014, EPA has proposed to waive the water quality criterion of 0.000064 µg/L in Massachusetts as an ARAR for the proposed remedy on the ground that achievement of this standard is "technically impracticable" (Draft Permit, Attachment C, at p. 1; Statement of Basis at p. 29; excerpts provided in Exhibit F).

⁴⁴ This Table can be found at <https://semspub.epa.gov/work/01/38256.pdf> (p. 131 of the .pdf document).

constitutes remedial, removal, or response action. See Responses to Comments 2.A.III.b, 2.B.II.a.3 and 2.B.II.b.2.

**Comment II.b.1. [Issuance of the Draft Permit Would Violate the PPA Covenants]
Description of covenants**

In the CD, the United States covenanted not to sue or take administrative action against GE under numerous federal laws to require GE to implement or fund additional response actions or similar measures, beyond those required by the CD, to address waste materials at the Site, unless specified “reopener” conditions are met – i.e., that there is new information or conditions and EPA determines that such new information or conditions, together with other relevant information, indicate that a Removal Action or other response action under the CD is no longer protective of human health or the environment (CD ¶¶ 161-163). The listed federal-law provisions include Section 309 of the CWA, which is the source of EPA’s authority to enforce the NPDES provisions of that statute, including the limitations in an NPDES permit.

EPA extended the same covenants to PED A in a Prospective Purchaser Agreement (PPA), formally called “Agreement and Covenant Not To Sue,” effective January 3, 2002 and amended on February 21, 2012 (copy provided in Exhibit G). The PPA noted that, because PED A was acquiring properties at the same Site for which GE had received covenants, it was appropriate to provide PED A with similar covenants (PPA ¶ 6). In the public notice soliciting comments on the proposed PPA, EPA stated that “[u]nder the Proposed Agreement, the United States grants a Covenant Not to Sue to the Purchaser under provisions of CERCLA, the Resource Conservation and Recovery Act, the Oil Pollution Act, the Clean Water Act, the Toxic Substances Control Act, and the Rivers and Harbors Act, with respect to existing contamination at the Site” (67 Fed. Reg. 3706-3707, Jan. 25, 2002; emphasis added).

The PPA provides that, so long as PED A abides by certain post-remediation obligations, the United States “covenants not to sue or take any other civil or administrative action against [PED A] for any and all civil liability for injunctive relief” with respect to “Existing Contamination” under a broad list of federal environmental laws, including Section 309 of the CWA (PPA ¶ 26), subject to certain reservations of rights (id. ¶ 27). “Existing Contamination” is defined to include any hazardous substances “present or existing on or under the Property” transferred to PED A as of the effective date of the Agreement, as well as any such substances “presently at the Site that migrate onto or under or from the [PED A] Property” after the effective date (id. ¶ 10(F)).⁴⁵

Response to Comment II.b.1.

EPA disagrees with GE’s selective interpretation of the Covenants Not to Sue included in the CD and the Agreement and Covenant Not to Sue entered into with PED A (“PED A Agreement”). As will be discussed in more detail in the next

⁴⁵ The February 2012 Amendment to the PPA extended the covenants to certain parcels along Silver Lake that PED A planned to acquire (and has since acquired), but made no substantive changes to the covenants.

Response (Response to Comment 2.II.b.2), issuance of this Final NPDES Permit is not in violation of or otherwise inconsistent with the covenants extended to GE and PEDDA.

To fully understand the covenants extended to PEDDA, it is helpful to view the entirety of the language from the Agreement:

26. Subject to the Reservation of Rights in Section IX of this Agreement, upon the effective date of this Agreement, the United States . . . covenants not to sue or take any other civil or administrative action against Settling Respondent ***for any and all civil liability for injunctive relief or reimbursement of response costs*** pursuant to the following:

a. Sections 106 or 107(a) of CERCLA, Section 7003 of RCRA, Section 7 of the Toxic Substances Control Act (“TSCA”), and/or Section 504 of the Clean Water Act with respect to the Existing Contamination; and

b. Sections 1002, 1005, 1006, 1009, 1015 of the Oil Pollution Act, Section 113(f) of CERCLA, Sections 3004(u) and (v) and 3008 of RCRA, Section 17 of TSCA, Sections 309, 311, and 404 of the Clean Water Act, and/or Section 10 of the Rivers and Harbors Act with respect to Existing Contamination. The United States' covenant set forth in this Paragraph 26.b with respect to such statutory provisions does not apply to any action or claim ***other than an action or claim to compel Settling Respondent to implement, comply with, or fund response actions, correction actions or measures, or other similar judicial or administrative response-type injunctive relief, or for recovery, reimbursement, contribution or equitable share of response costs of Natural Resource Damages***, and specifically does not apply to any action or claim for civil penalties under these statutory provisions.

PEDDA Agreement, ¶¶ 26.a-.b (emphasis added). The entire covenant is limited to civil liability for 1) injunctive relief, and 2) reimbursement of response costs. As will be discussed below, authorization of discharge through issuance of an NPDES Permit is neither classified as injunctive relief nor a reimbursement of CERCLA response costs. Additionally, the emphasized language in paragraph 26.b further demonstrates that the covenant only applies to claims/actions brought under the listed statutory sections (including CWA section 309) if such actions seek to compel CERCLA response actions, RCRA corrective actions, or those similar actions intended to satisfy the CERCLA and RCRA goals contemplated in the Consent Decree. See Response to Comment 2.B.II.b.2 below.

Comment II.b.2. Violation of Covenants

Based on available information, the PCB contamination that would cause exceedances of the PCB effluent limit in the draft PEDA permit and would thus have to be addressed to meet that limit is part of “Existing Contamination,” because those PCBs were present on the PEDA property as of the effective date of the PPA. As a result, EPA is precluded by the covenants in the PPA from requiring PEDA to conduct additional response actions to address that contamination – which the draft permit would do.⁴⁶

It is clear that the purpose of the covenants in both the CD and the PPA is to prevent EPA from using CERCLA or RCRA or any other federal statute to require GE or, in this case, PEDA to implement or fund additional response actions at the Site beyond those required by the CD. That is why the covenants contain a broad list of statutory provisions that EPA could potentially rely upon to issue such requirements.

For the CWA, the covenants list the various provisions that could give EPA the authority to require response actions. These include Section 309, which provides, inter alia, that whenever EPA finds that a person is in violation of various CWA sections, including Section 301 (prohibiting discharges without a permit), or of any condition or limitation of a permit issued under Section 402 (authorizing NPDES permits), it shall issue an order requiring such compliance or bring a civil action to compel such compliance (CWA § 309(a)(3)). Thus, in the event that PEDA did not conduct the necessary actions to meet the effluent limits in its NPDES permit, EPA would need to rely upon Section 309 to compel such compliance. Such an action would fall squarely within the covenants’ prohibition on civil or administrative actions for injunctive relief. In short, there was no need to list Sections 301 and 402 separately; the reference to Section 309 (which provides for enforcement of those provisions) prohibits EPA from using CWA authorities, including the mechanism of an NPDES permit, to require further response actions.⁴⁷ Accordingly, the issuance of a permit that would compel the permittee to take such actions would likewise run afoul of the covenants.

Response to Comment II.b.2.

The U.S. covenants not to sue in the Decree and in the PEDA Agreement do not limit implementation of the NPDES regulatory program as applied to GE or PEDA. First, the commenter’s argument regarding enforcement is premature. EPA has not brought an action under CWA Section 309 to compel PEDA to implement additional response actions at the Site. If EPA ever sues or commences

⁴⁶ EPA’s reservations of rights in the PPA exclude from the covenants PEDA’s liability resulting from hazardous substance releases “caused or contributed to” by PEDA or from PEDA’s “exacerbation” of Existing Contamination (PPA ¶ 27(b), (c)). However, EPA has not claimed in the draft NPDES Permit or Fact Sheet or elsewhere that either of these conditions is present here.

⁴⁷ The covenants follow a similar approach for RCRA, for example. They do not specifically cite the provision of RCRA that authorizes EPA to issue permits for treatment, storage, and disposal (TSD) facilities (RCRA § 3005); but they do list the provision that authorizes EPA to enforce the requirements of such a permit (RCRA § 3008) (see PPA ¶ 26.b, following CD ¶ 161.b). Thus, as with the CWA, the covenants would preclude EPA from using a RCRA TSD permit to require additional response actions at the Site.

an action against PEDA under Section 309 to compel additional work at the Site, this argument will be ripe for consideration.⁴⁸ Nothing in the Consent Decree or the PEDA Agreement prohibits the reissuance of an NPDES permit or constrains the conditions imposed in this reissued permit.

Second, EPA agrees with GE that the purpose of these covenants is to prevent EPA from initiating an enforcement or administrative action to compel PEDA to “implement or fund additional *response actions* at the Site beyond those required by the CD.” As stated in Responses to Comments A.III.b and B.II.a.3 above, a “response action” has a specific definition under CERCLA, and the PEDA Agreement specifically notes that terms of the agreement “shall have the meaning assigned to them in CERCLA.” PEDA Agreement, ¶ 10. Nothing about the issuance of an NPDES Permit or the conditions included within such permit falls within the definition of “response action.” *See also* discussion below.

Third, the covenants not to sue in the Decree and in the PEDA Agreement reference a number of provisions of environmental statutes. See Decree, Paragraphs 161.a. and 161.b; PEDA Agreement, Paragraphs 26.a and 26.b. With respect to the CWA, the covenants reference Section 309 (related to enforcement), Section 311 (related to oil spills), Section 404 (related to discharges of dredged or fill material), and Section 504 (related to imminent and substantial endangerment). In contrast, the covenants do not reference either of the jurisdictional prerequisites of the NPDES program, namely Section 301 and Section 402 of the Clean Water Act.

There is simply no evidence that the parties intended the covenants to preclude EPA’s reissuance of the NPDES Permit or constrain the conditions imposed in this reissued permit. The Final Permit’s BMPs are far from a response action intended by 161.b.

The CWA Section 309 reference in Paragraph 161.b of the Consent Decree and in Paragraph 26.b of the PEDA Agreement is among a number of statutory references which, if one reviews the paragraph in its entirety, are clearly intended only to preclude enforcement for injunctive relief designed solely to accomplish the same relief as that which is covered by the Decree, rather than to supplant all or part of the Section 402 CWA NPDES program. The terms used in this covenant are narrowly framed to avoid the potential of the United States using a statutory provision outside of CERCLA or RCRA corrective action to compel GE or PEDA to take or pay for other CERCLA response actions or RCRA corrective actions.

⁴⁸ To the extent that GE refers to the citations to RCRA in section 161.b (Consent Decree) and 26.b (PEDA Agreement), this claim is neither relevant nor ripe for review. First, an NPDES permit proceeding is not the appropriate venue to assess whether and how RCRA statutory provisions cited in the PEDA Agreement and Consent Decree covenants operate. And, even if it was the correct venue, these claims too would be premature.

This is underscored by the language that limits the covenant not to sue to actions to implement “response actions, corrective actions or measures, or other similar judicial or administrative response-type injunctive relief.” This phrase limits the scope of the covenant to include only actions similar to the response actions or corrective actions/measures described. “Response actions” is a term under CERCLA which encompasses the CERCLA “removal actions” and “remedial actions.” At the Superfund Site, GE is required to perform all but one of the discrete remediation activities as CERCLA removal actions; the remaining activity – the “Rest of River” – is being performed currently under a RCRA corrective action permit. At the conclusion of the RCRA corrective action permit process, the EPA will select “corrective measures” under RCRA for the Rest of River. By the clear language, the types of actions included under Paragraph 161.b and Paragraph 26.b are intended to be those similar to the response actions, corrective actions or measures already being undertaken under the Decree – i.e., soil and sediment removal and remediation, ground water remediation, and other steps that address specified areas of past contamination. The NPDES permit, in contrast, addresses different activities, with different purposes, from the Decree’s response actions, corrective actions and measures.

EPA’s issuance of the final NPDES permit is not a “response action” to address PCBs that have been redeposited on the covered/restored sediments. The permit authorizes stormwater and groundwater discharges to the River subject to certain limitations. Such limitations are based on technology and water quality requirements of the Clean Water Act. They are not in any way premised on whether or not PCBs have been redeposited on restored or covered River sediments.

The effluent limitations imposed by the NPDES permit cannot reasonably be construed to be “other similar judicial or administrative response-type injunctive relief.” An NPDES permit is an authorization to discharge pollutants that would otherwise be prohibited from discharge under Section 301 of CWA. By contrast, an injunction is a prohibitive remedy sought by or issued in response to an administrative or judicial enforcement action.⁴⁹ Conditions in an NPDES permit are not injunctive relief.

Furthermore, the Decree demonstrates that where the parties intended to modify or revoke an environmental permit, they did so explicitly. Appendix G to the Decree is the Reissued RCRA Permit for the Rest of River portion of the Site. Prior to Decree entry, GE had been subject to a RCRA corrective action permit to address releases of PCBs and other hazardous waste. In the Decree, the parties agreed to reissue that RCRA corrective action permit to address a different set of

⁴⁹ Black’s Law Dictionary, 5th Ed: “Injunction” is “a prohibitive, equitable remedy issued or granted by a court at the suit of a party complainant, directed to a party defendant in the action, . . . forbidding the latter to do some act, or to permit his servants or agents to do some act, which he is threatening or attempting to commit, or restraining him in the continuance thereof, such act being unjust and inequitable, injurious to the plaintiff, and not such as can be adequately redressed by an action at law. A judicial process operating in personam, and requiring person to whom it is directed to do or refrain from doing a particular thing.”

activities than in the prior RCRA corrective action permit. To accomplish that, the parties followed the regulatory process for reissuance of a RCRA Permit, including a public comment period and a public hearing. If the parties to the Decree had meant to revoke or modify the NPDES Permit requirements, as they did for the RCRA Permit, or to preclude its reissuance, the parties would have stated so explicitly, and followed the applicable regulatory process, including an opportunity for public comment.

Comment III. Alternative Approaches Under The Clean Water Act

As described above, EPA has already determined that Silver Lake may never achieve the water quality criterion of 0.000064 µg/L, even if this value could be reliably measured. Yet the Agency's water program seems to think that it has no choice but to impose effluent limits based on this criterion. Under EPA's approach, PEDA will be forced to make a Hobson's choice between trying to meet limits that may not be achievable at all and/or would require prohibitively costly response actions that violate the very covenants that EPA provided, or else face the risk of chronic noncompliance with its NPDES permit. The water program says that its hands are tied, but this is not the case. There are at least three options under the CWA that could avoid a direct conflict with the CD.

First, EPA could conduct a use attainability analysis (UAA) to "right-grade" the water quality standards for Silver Lake, consistent with the determinations that EPA has already made in connection with the CD. Recognizing that legitimate factors might prevent a use from being met, EPA issued regulations in 1983 that identify six scenarios where use attainment is not feasible and, in turn, authorize EPA or the state to remove or adjust (i.e., "right-grade") the use and corresponding water quality criteria.⁵⁰ At least one of those scenarios would apply here. Scenario (3) applies to situations where Human-caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place. Much of the structured scientific assessment of the factors affecting use attainment under Scenario (3) has already been conducted under the CD and should be directly transferrable to the water program for purposes of a UAA.

We recognize that the UAA process may take a year or more to complete, and will involve close coordination between EPA and MassDEP. Despite the time involved, there is nothing preventing EPA from administratively continuing the existing PEDA permit (as it has done to date) until after the UAA is complete. Only then will EPA be in a position to establish permit limits that are both necessary and achievable.

Alternatively, EPA could grant PEDA a variance from the need to achieve the 0.000064 µg/L criterion. EPA has a long history of granting variances (and approving state-granted variances) using the same factors as for a UAA, but on a time-limited and source- or waterbody-specific basis. Indeed, EPA has just finalized a set of targeted revisions to its water quality standards regulation that will provide additional specificity on the

⁵⁰ See 48 Fed. Reg. 51400, 51407 (November 8, 1983) (codified at 40 CFR § 131.10(g)).

development and use of variances.⁵¹ If EPA has any reservations about pursuing a permanent change in standards using a UAA, then a variance would serve as the next best option, giving PEDA temporary relief from the 0.000064 µg/L criterion while still requiring interim performance measures that reflect the highest attainable condition of Silver Lake. This approach would be consistent with EPA's prior determination in the CD to waive the comparable water quality criterion as an ARAR for the Removal Actions on the ground that actions to attain that criterion are not practicable. It would also be consistent with EPA's proposal to waive the 0.000064 µg/L criterion as an ARAR in Massachusetts for the proposed Rest of River remedy on the ground that that criterion is "technically impracticable" to achieve (see note 5 above).

Finally, EPA could require BMPs in lieu of numerical end-of-pipe effluent limits. While EPA has mapped out an "Alternative BMP Approach" in the Fact Sheet, it has not proposed that approach. However, that approach could be appropriate here. Due to the practical difficulties associated with regulating stormwater runoff (e.g., inherent variability and intermittent volume), EPA has for many years adhered to a permitting policy that relies on BMPs in lieu of numerical limits to protect water quality.⁵² This policy is predicated on EPA's recognition that numerical limits on stormwater are not necessary or, in many cases, feasible. Indeed, EPA's regulations specifically authorize use of BMPs where numerical limits are infeasible (40 CFR § 122.44(k)(3)). All of EPA's model general permits (e.g., its Multi-Sector General Permit, Construction General Permit, and Municipal Separate Storm Sewer System [MS4] general permit) rely on BMPs in lieu of numerical limits, and most of EPA's individual stormwater permits do so as well. For the PEDA permit, BMPs present an established approach to water quality protection that can be implemented in an adaptive manner over the course of successive permit terms, with or without a variance.

Response to Comment III.

As explained in Response to Comment 2.V.a, EPA has determined that a BMP approach is appropriate and capable of ensuring compliance with the

⁵¹ EPA's final rule was submitted to the Office of Management and Budget on January 8, 2015, but has not yet been published in the Federal Register.

⁵² EPA's permitting policy dates back to August 26, 1996, and has been updated in stormwater policy memos from November 22, 2002 and November 26, 2014. See Interim Permitting Policy for Water Quality-Based Limitations in Stormwater Permits, 61 Fed. Reg. 43761 (Aug. 26, 1996), as revised in 61 Fed. Reg. 57425 (Nov. 6, 1996), and extended to municipal separate storm sewer systems in EPA's Phase II stormwater rule, 64 Fed. Reg. 68753, 68737 (Dec. 8, 1999); EPA's November 22, 2002 Memorandum titled Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs; and EPA's November 26, 2014 Memorandum titled Revisions to the November 22, 2002 Memorandum "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs." These policy memos reinforce EPA's longstanding position that BMPs may be used in lieu of numerical limits in stormwater permits. The validity of the BMP approach has also been confirmed by case law. See, e.g., *In re: Arizona Municipal Stormwater NPDES Permits for City of Tucson, Pima County, City of Phoenix, City of Mesa, and City of Tempe*, NPDES Appeal No. 97-3 (EAB 1998) (upholding decision not to impose numerical limits on grounds of infeasibility, in particular due to the unique nature of stormwater discharges) (subsequently appealed and decided on other grounds).

Massachusetts surface water quality standards for PCBs, and has, therefore, included BMPs in the Final Permit rather than numeric PCB limits. The Final Permit is consistent with both GE's request that EPA remove numeric PCB limits and the third option presented by GE as an alternative approach to water quality protection. For further discussion of EPA's determination that BMPs are appropriate non-numeric water quality based effluent limitations, see Responses to Comments 2.A.IV.a and 2.A.V.c.

EPA acknowledges that the commenter also suggested two other alternatives to numeric PCB limits: conduct a use attainability analysis (UAA) or grant a variance from the Massachusetts surface water quality standards. Due to the inclusion of BMPs in lieu of numeric limits, EPA need not address these two suggested alternatives. However, see Response to Comment 2.A.III.d for a brief discussion of the viability of these two options.

Comment IV. Applicability Of The NPDES Permit Program To PEDA

Apart from GE's substantive comments on and concerns with the PEDA NPDES permit as drafted, GE continues to question whether PEDA is subject to the NPDES permit program in the first instance. PEDA's current operations do not involve any of the eleven categories of industrial activity set forth in 40 CFR § 122.26(b)(14) that require authorization under an NPDES industrial stormwater permit. Nor is PEDA considered a municipal separate storm sewer system (MS4) subject to 40 CFR § 122.26(a)(3). Moreover, the EPA Regional Administrator has not separately designated the PEDA discharge for NPDES permit coverage under 40 CFR §§ 122.26(a)(1)(v) or 122.26(a)(9)(i)(C) or (D). Thus, PEDA's stormwater discharge appears to fall outside the scope of EPA's NPDES permit program.

Response to Comment IV.

EPA maintains that PEDA is subject to the NPDES permit program for its discharge into Silver Lake. The commenter's question as to whether PEDA's discharge is subject to the NPDES permitting program is premised on a flawed application of 40 CFR section 122.26. GE suggests that in order for the NPDES program requirements to apply to PEDA, PEDA must fall within one of the categories of exceptions set forth in section 122.26(a)(i)-(v). However, the commenter fails to acknowledge the threshold requirement set forth in section 122.26(a)(1), that only "discharges *composed entirely of storm water* shall not be required to obtain a NPDES permit" except under the exceptions identified by the commenter. 40 CFR § 122.26(a)(1) (emphasis added); *see also* 33 U.S.C. § 1342(p). As stated in the 2015 Fact Sheet, "PEDA is authorized [under this NPDES permit] to discharge stormwater and contaminated groundwater infiltration." Fact Sheet, p. 5; *see also id.* at 8 ("[Outfall 001] discharges stormwater, groundwater infiltration, and potable water (used for fire protection testing) from approximately 148 acres of drainage area to Silver Lake."). The discharge from Outfall 001 comprises stormwater, groundwater, and potable water, and therefore, is not "composed entirely of storm water." As a result,

section 122.26(a)(1) does not apply, and EPA need not demonstrate that PEDDA satisfies one of the exceptions to demonstrate that this permit is appropriately issued under the NPDES permit program.

However, even if PEDDA's discharge was composed solely of stormwater, the NPDES permit program would still apply because the PEDDA property involves industrial activity as defined in 40 CFR § 122.26(14). As stated, "for the categories of industries identified in this section, [storm water discharge associated with industrial activity] includes, but is not limited to, storm water discharges from . . . areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water." *Id.* Because GE owned this property previously and "[u]ntil 1990, GE manufactured and serviced large electrical transformer equipment and military hardware on this site," industrial activity that clearly satisfies one of the categories of industrial activity listed in section 122.26(14) has taken place in the past. Fact Sheet, p. 10. Significant materials remain in the soil, including PCBs, that are exposed to storm water through infiltration into the soil and groundwater and/or commingling in the water quality basin. *Id.* at 10. In sum, due to past industrial use of the PEDDA property, PEDDA's stormwater would be subject to the NPDES permit program. Industrial facilities can include those that are federally, state, or municipally owned or operated that meet the description of the facilities listed in 40 CFR 122.26(b)(14). The term also includes those facilities designated under the provisions of 40 CFR 122.26(a)(1)(v). *See* 40 CFR 122.26(b)(14).

Comment V. Conclusion

For the reasons given above, GE believes that EPA and MassDEP should withdraw the current draft permit and take steps that are consistent with their agreements in the CD and PPA.

Response to Comment V.

See responses to GE's specific comments in Part 2.B. above.

3. Response to Spoken Comments provided at May 19th, 2015 Public Hearing

A. Comment by Corydon L. Thurston

Thank you, David, and, for the record, Corydon L. Thurston, Executive Director of the Pittsfield Economic Development Authority. I do have a written statement. It's available if anyone would like copies. I've given a copy to the Recording Secretary for the record, and I thank you for your time and attention.

I believe the Environmental Protection Agency is unfairly burdening the Pittsfield Economic Development Authority, or PEDDA, and the City of Pittsfield by proposing a draft discharge permit with new and unnecessarily stringent limits to our storm water outfall. The regulatory action directly conflicts with the intent of the Definitive

Economic Development Agreement, or the DEDA, that created PEDDA, and conflicts with the fundamental terms of the Consent Decree, a highly touted and one of a kind, public-private agreement for environmental cleanup. The Consent Decree amongst GE, EPA, MassDEP, the United States Attorney General's Office and the City of Pittsfield was unique in the nation and charted a course for remediation, redevelopment and reuse of a brownfield site that as destined for the U.S. Superfund list.

PEDA and the City have relied upon the terms of the Consent Decree and EPA's assurances as the basis for taking title to this property. PEDDA's primary mission, in fact, was to be the recipient of the remediated properties for the purposes of redevelopment. The Consent Decree provides that the environmental remediation, when implemented and completed in accordance with the Consent Decree and the Statement of Work, are "protective of human health and the environment with respect to the areas addressed by those Removal Actions." The Removal Actions at the PEDDA parcels have been completed, and the EPA has issued an approval and Certification of Completion for each parcel, confirming that the land has been remediated to the approved standards, as a prerequisite to the transfer of title. We have relied on these assurances to market the property, and we have warranted these assertions and these assurances in our lease agreements to tenants in the Park.

The proposed permit requirements seem to ignore these commitments and unfairly put PEDDA in the position of being responsible for meeting new standards, standards that are greater than what was required by the EPA in the Consent Decree for both the soil and groundwater. PEDDA did not create the problem and we didn't set the standards for remediation, so why are we being burdened with the impacts of these new rules?

The new requirements and the establishment of limitations imposed by the proposed storm water discharge permit will be next to impossible to attain without the construction of an estimated \$6+ million treatment facility. In addition, the new and expanded testing and monitoring requirements are estimated to cost PEDDA in excess of \$50,000 a year, a three-fold increase from the current costs of compliance. This is a significant financial burden upon PEDDA, and we do not believe it's justified from the data currently collected and on file. The resultant impacts from costs of compliance and the very real possibility of enforcement action over the very near term threaten to put the future development of the William Stanley Business Park at risk and undermine PEDDA's ability to sustain itself.

PEDA is currently measuring PCBs to a reporting limit of 0.065 micrograms per liter, which is so tiny, it's equal to one square inch of toilet paper on a roll stretching from New York to London. We have not had detected PCBs at that level entering Silver Lake in the last 10 months of testing. The new draft permit calls for a discharge limit of PCBs of 0.064 nanograms per liter, or parts per trillion, although there is no lab in the United States that can test to that level. One part per trillion is analogous to one second in 32,000 years, just to give you an idea, or one ounce in 7.5 billion gallons of water. Very, very minute particles.

PEDA is currently operating under an old, GE industrial permit that you heard about that expired in 1997. The permit transferred to PEDDA when the first parcels of land were

officially transferred to us in May of 2005. Subsequently, PEDDA filed an application for a new permit as the new owner in November of 2005. In the 10 years since this application has been pending, PEDDA has spent over \$180,000 monitoring and complying with the transferred permit. We've also invested \$3.5 million on the construction of a new retention basin, which was designed to a capacity that anticipated the full build-out of the William Stanley Business Park. The basin also consolidated three outfalls into one and provided a pretreatment facility for 91 acres of city storm water that is combined with that of PEDDA's 26 acres from the northern part and the Tyler Street areas. In preparing the southern portion of the William Stanley Business Park for redevelopment, that's the south of the tracks, PEDDA also relined the old storm water conduits and improved the water quality by ensuring that there would be no infiltration contamination from cracks or leaks in the old infrastructure. These were planned, best practice initiatives, not regulatory mandates, and all of these efforts received EPA approval. Throughout the period, we continued to comply with the expired GE permit and, to the best of my knowledge, there was never an indication of more stringent or more serious issues with the EPA or that they intended to do anything more than modest modifications to the existing permit.

Actually, things are much improved, and, therefore, the expectations were much improved. As an example of what indicated improvements, in 2009, EPA issued a letter to PEDDA eliminating the requirement for a Part I.A.13 of the 1992 permit that required testing for a variety of metals and whole effluent toxicity, and I quote, "As part of the reissuance of the 1992 permit, EPA evaluated the past data submitted for these composite samples and determined that further sampling was not required." We are unaware of any changes since that letter of 2009 to indicate the need to resume expensive testing, but unfortunately it's included in this new draft permit. This is one of many actions that EPA specifies PEDDA should take, or must take, but provides not rational justification for demanding these actions. The approach seems punitive and ignores the benefits of the water quality basin and the improvements that PEDDA has already put into place.

Why have we been allowed to continue on this path and move so far down the road without guidance on a permit that expired in 1997? Certainly from PEDDA's perspective, and the City's, I might add, if we had known that the rules could change in the bottom of the ninth inning, we certainly wouldn't have taken ownership of the property.

While we understand that the performance standards under the Consent Decree may conflict with certain NPDES standards and that the protections provided under the Consent Decree and Covenant Not To Sue may conflict with certain aspects of NPDES regulatory mandates, EPA cannot impose requirements that conflict with the terms of the Consent Decree. PEDDA is in compliance with the relevant performance standards of the Consent Decree and cannot be required to meet a higher standard.

As previously pledged and evidenced by our past performance and actions, PEDDA remains willing to continue reasonable monitoring and data collection and work towards environmental system improvements and seek ways to find additional best practice objectives and creative infiltration solutions in conjunction with the City of Pittsfield to further improve the storm water quality into Silver Lake. We respectfully request,

however, that EPA delay issuance of any draft permit, or any permit for that matter, until the referenced legal and factual issues are resolved and a permitting path is clarified that recognizes this is no longer an active industrial site, it is owned by municipal entities that share the storm water facilities and acknowledges that the obligation to the Consent Decree in conjunction with current conditions of the property and the infrastructure improvements that have been made to date.

And I thank you for your time and patience. A little more than five minutes.

Response to Comment A.

Several concerns identified by the commenter relate to the Consent Decree discussed throughout this document. As explained in several of EPA's responses, the Consent Decree does not conflict with or limit EPA's ability to issue this Final Permit. *See, e.g.*, Responses to Comments 2.A.III.b and 2.B.III.a.

As to the commenter's assertions that the permit is unfair, EPA notes that the permit now includes BMPs to ensure compliance with the Massachusetts surface water quality standards related to PCBs, rather than numeric limits, and further that this was expressly requested by PEDDA.

The commenter complains that PEDDA should not be required to meet new standards because PEDDA did not "create the problem." However, applicability of the Clean Water Act is not based on whether a particular individual generated or is responsible for the contaminants or pollutants being discharged. Instead, the Clean Water Act simply prohibits any discharge of any pollutant unless authorized by an NPDES permit. According to the commenter, PEDDA could only be subject to the Clean Water Act if it was responsible for the "problem," or PCBs, that are present in its stormwater discharges. This is in direct conflict with the Act. Prior actions or responsibility under CERCLA have no bearing on whether the Clean Water Act applies to a discharge.

The commenter asserts that compliance with the numeric limits included in the Draft Permit would be financially burdensome and unjustified. Because EPA is no longer including numeric limits (see Response to Comment 2.A.V.c.), this concern is no longer relevant. *See also* Response to Comment 2.A.IV.b for a discussion of financial implications.

Regarding the WET testing requirements, please see Response to Comment 2.A.IV.a.(iv).

Finally, the commenter argues that the Consent Decree and Covenant Not to Sue conflict with the NPDES permit and regulatory program, and requests that EPA delay issuance of the permit until these legal issues are resolved. Again, as set forth in Response to Comment 2.A.III.a. and throughout this document, there is no conflict between the Consent Decree and related Covenant Not to Sue and the

requirements under the Clean Water Act and implemented in the Final Permit. Any further delay in issuance of this Permit is, therefore, unwarranted.

B. Comment by Thelma Barzottini

I'm Thelma Barzottini. I've lived in Pittsfield, Massachusetts most all of my life. I've been involved in this situation with the PCBs and environmental. I belong to what they call the Citizens for PCB Removal and the Citizens Coordinating Council. I have sat at the table for years.

I really don't know what to say. I think the Consent Decree kind of put the kibosh to everything because, I think, at the time they didn't have enough people to put teeth into it, as they say, and of course I'll always blame the GE. I guess what I'm trying to say is that I know PEDA is really trying to do a very good job, and they've come up with circumstances that certainly weren't even thought about, and everything changes. Of course, I want to make the world safe for the people's health and what else, but I don't understand why it took so many years for all this to transpire. They weren't even given any warning that this was going to happen, and suddenly they're presented with it.

I know how finances go within organizations today. It just gets eaten up, and I really don't know what else to say. I just think they've done a good job. I know that they've tried to clean the property up. It'll always be, in my mind, contaminated, but I think it goes back to the GE and has a lot to do with the Consent Decree, so I guess I'll have to rest my case. And I thought that was a wonderful presentation that the gentleman gave from PEDA.

What I wanted to know, I guess, one of the things is I thought we'd be informed of, what the Mayor of our City has submitted because I see that the comments are going to be after this meeting tonight. I would have liked to have known what, you know, I think part of it might hinge upon what is going to be presented in that.

I guess that's it, so I thank you and I thank everybody for coming. I'm really sorry that there wasn't more people interested, whether they had other things to do, but I think this is quite an issue for this city. Thank you.

Response to Comment B.

EPA notes the commenter's concerns related to the Consent Decree. However, the Consent Decree and its implications are not at issue here. Any suggestion that the Consent Decree should be modified or deserves additional review is not relevant for EPA's issuance of PEDA's Final Permit.

To the extent that the commenter states that PEDA and others were not given warning or notice of this permit proceeding, the commenter is mistaken. The draft permit was issued in 2015, and EPA provided notice and opportunity for PEDA and the public to comment and provide input. These comments are evidence of the robust public notice and comment process underlying this Final Permit.

Additionally, as demonstrated throughout this document and in comments from PEDA representatives below (see Comment 3.C), PEDA knowingly inherited its NPDES permitting obligation as part of transfer of the property from GE to PEDA, and was not otherwise unfairly surprised by its CWA obligations.

Finally, EPA notes commenter's opinions about the efforts to clean up the GE property.

C. Comment by Pamela Green

Thank you very much. My name is Pamela Green. I'm a member of the Board of the Pittsfield Economic Development Authority, and I don't want to repeat too much of what Mr. Thurston has already stated, but I do want to highlight a few points that are important to the other Board members.

As has been discussed, PEDA has been working under a 1988 permit that was originally issued to GE as an industrial discharge permit. The area that is served by the storm water system being regulated by this draft permit includes 91 acres of City property over which PEDA has absolutely no control or authority and 52 acres of PEDA property, which currently contains absolutely no industrial activity, unlike at the time the original permit was issued.

PEDA submitted an application for its own permit in 2005. In the intervening years while waiting for our own permit to be issued, PEDA has fully complied with the terms of the original permit, including all testing requirements. In addition to complying with the permit, PEDA has incurred great expense in remediating the site to reduce concentrations of various materials. Despite continued compliance with the existing permit, remediation of the site, the recent absence of detectable PCB levels and the lack of any industrial activity at the site, the EPA has decided to regulate our storm water outfall as an industrial one.

Ten years after the original application was submitted, the EPA has issued a draft permit for PEDA with requirements that are far more onerous and burdensome than under the previous industrial permit and that are also more stringent than as required of other industrial sites and by industrial permits. The testing requirements of the new permit obligate PEDA to test at levels that are so stringent that there is no lab in existence that can detect to said levels. This sets up PEDA for noncompliance from Day 1 of the permit. We've been led to believe we can get to those limits in any way we want to, but the problem is we can't get there if we can't even test to those limits at this point in time. It again sets us up for an unattainable goal, and the cost associated with trying to reach that unattainable goal would essentially triple our current cost and would eventually bring PEDA closer to running out of the very finite amount of money that we have at our disposal. We are not an entity that has an unlimited source of funds.

If we're obligated to comply with the parameters that are set forth in this permit, we will run out of money and we will fail to meet our mission of bringing economic development back to Pittsfield. These costs will severely hamper our ability to fulfill that purpose to

attract tenants to the Park. Up to this point we have relied upon the Consent Decree and upon, as has already been discussed, the parameters set forth in that Consent Decree as a condition of taking control of this property and attempting to redevelop it.

PEDA believes in compliance and in environmental responsibility, but we must be realistic in the methods that we implement to achieve the best possible result for our community. We urge the EPA to permit reasonable, best management practices in lieu of onerous, numeric limitations that are unattainable for PEDA and that would send us to a place that would not benefit the City of Pittsfield nor its citizens. Thank you.

Response to Comment C.

The commenter, on behalf of PEDA, the permittee, requests that EPA include BMPs in the permit rather than numeric limits for PCBs. EPA has determined, considering this and other comments, recent data, new information, and updated analyses, that a BMP approach is both reasonable and appropriate to ensure compliance with the Massachusetts SWQSs for PCBs. As a result, the Final Permit does not require compliance with numeric PCB limits, but instead requires that the permittee to comply with the BMPs set forth in Section I.C. of the Permit. EPA's decision to move forward with non-numeric limits for PEDA's discharge is supported by the CWA and the relevant regulations, as explained in Responses to Comments 2.A.IV.a and 2.A.V.c. above.

See Responses to Comments 2.A.V.a-d for a complete description of the BMPs included in the Final Permit and their implementation.

Finally, with respect to the commenter's suggestion that discharge from Outfall 001 is solely stormwater and does not originate from an industrial site, see Response to Comment 2.B.IV.

D. Comment by Valerie Andersen

Thank you. I'm Valerie Andersen. A N D E R S E N. I live in Pittsfield, Massachusetts. I'm a sitting member of the Citizens Coordinating Committee, which was set up by the Consent Decree for cleanup of the Housatonic River, and I represent the Housatonic Clean River Coalition in that capacity.

Before this public hearing, we had a very informative information session from members of the EPA, and one thing that struck me was the fact that the Consent Decree, which governs the cleanup of the Housatonic River and Silver Lake, did not mention or deal with this permit at all. It seems like it's a glaring hole that was in the Consent Decree, and it underscores the deficiencies of the Consent Decree.

General Electric, which polluted the PEDA property for many years, was allowed to pass off this property to PEDA, a quasi-government agency, knowing that this permit expired in 1997 and there has not been a permit since 1997. We have discussed this for many, many years at the Citizens Coordinating Committee, that the permit has been expired, and representatives from the EPA have confirmed for many years now that runoff from

the groundwater of the former GE site now owned by PEDDA is trickling, or more than trickling, into the storm water pond next to the MountainOne site and then flowing into Silver Lake.

It seems just absurd that the EPA and GE would have spent millions of dollars cleaning up the Housatonic River so far to have more contaminants being seeped into the already cleaned up river through Silver Lake and this Outflow 001. Tonight we learned, or I learned, probably people knew it before, but that Outfall 001, which is the subject of the permit, was “forgotten” when GE had the foresight to obtain a permit for its three remaining outflows. Cynically you could say that General Electric, the polluter, when it passed off its property to PEDDA, a government agency, wanted to wipe its hands and knew that there would even be an outflow where contaminated groundwater would still seep into the river that it paid to clean up.

Now when we're finally dealing with an expired permit, we're told that PEDDA has no money to implement the provisions of the proposed permit, and it doesn't, it's a quasi-governmental agency. Since the Consent Decree did not deal with this permit at issue now, I would advocate that the EPA, one of the parties to the Consent Decree, be directed to amend the Consent Decree so that General Electric be held to account to stop the source of this continued pollution. Since the Consent Decree did not deal with this at all, it should go back to the Court and have the responsible party, General Electric, which still has a lot of funds, unlike PEDDA, to find the source of the contamination and deal with it, I think. But if that's not possible, then I think it has to be up to PEDDA and the City of Pittsfield to comply with the Clean Water Act and stop the continued contamination and get rid of the source of the pollution.

We did learn tonight that most of the pollution that is still going into Silver Lake out of 001 is from the subsurface groundwater from the old, General Electric facility. We learned tonight too that there have been some violations of the current permit, which is expired, with regard to oil, gas (sic) and other pollutants, suspended solids. So I think it's unfortunate that PEDDA had to take over this property from General Electric, that it passed it off without remaining on the hook, but given the fact that river is still being contaminated, that there is a substantial source of pollution, including PCBs, that this permit should be implemented.

There are some, we learned tonight, more stringent requirements in the proposed permit, and there are some less stringent requirements in the new permit. So maybe some of the requirements can be tweaked to make it a little easier for PEDDA to comply if they have to, but the spirit of the Clean Water Act should be enforced in the permit. But I must say that, really, General Electric, and not PEDDA, should be the ones who should clean up and stop the source of the contamination because it was GE's pollution that is still seeping into the cleaned up Housatonic River. Thank you.

Response to Comment D.

The commenter correctly notes that the Consent Decree did not address this NPDES permit. As explained throughout this document, the Consent Decree was

entered into pursuant to CERCLA, which has different goals and requirements and is not intended to administer the NPDES program or the CWA.

However, as required by the CWA, any NPDES permitted discharge must meet state water quality standards. The conditions and limitations included in this Final Permit assure that Massachusetts surface water quality standards as well as relevant technology-standards will be met. In fact, consistent with the commenter's request that the permit be "tweaked," the Final Permit has been modified to include a BMP approach to addressing PCB discharges rather than the numeric PCB limits from the Draft Permit. This ensures the stringent Massachusetts surface water quality standards will be met, but provides more flexibility to PEDDA in achieving those standards.

Thus, the Final Permit limitations and conditions ensure PEDDA's discharge will neither violate Massachusetts SWQS nor result in recontamination of Silver Lake.

EPA notes the commenter's opinions that GE should be responsible for continued contamination. As stated in the transfer agreement between GE and PEDDA, GE remains responsible for its remedial and response actions at the Superfund Site pursuant to CERCLA. *See* Definitive Economic Development Agreement (DEDA), Section IV, pp. 11-13.

E. Comment by Jane Winn

My name's Jane Winn. I'm Executive Director of Berkshire Environmental Action Team, or BEAT. I also live in Pittsfield. BEAT strongly supports the limits set by the draft NPDES permit. While Mr. Thurston has said that this places an unfair burden that's unnecessarily stringent, we disagree completely. We think that this stringency is absolutely necessary for protecting human and environmental health.

The limits are appropriate because testing keeps getting better and better, and we need a good, strong limit. As the testing gets better, we may be able to test down to that limit, and we need to know that human and environmental health are protected. When you talk about these great comparisons of how small amount of PCBs compared to huge amounts, you have to think about the drugs that we take to cure diseases are in those same levels. These very small amounts have effects on human and environmental health. It's important that we set good, stringent limits.

In our reading of the terms of the transfer of the property to PEDDA, it appears to us to be very clear that GE retains responsibility for their pollution. We think GE should be paying for this, and we think it's clear in the terms of the transfer that GE should be retaining responsibility and should be paying and should have been paying. It doesn't matter who owns the property. The testing must continue and must ensure that the outfall, the water from the outfall, is protective of human health and environmental health. It doesn't matter if it's an industrial property or a residential property. What matters is that the water flowing out of the outfall is protective of human and environmental health. It

doesn't matter the cost, the polluter, GE, should be paying to be sure that the water coming out of that outfall is protective of human health and environmental health.

And I'll just finish by saying we intend to submit written comments as well before June 6th, but thank you for the opportunity to speak tonight.

Response to Comment E.

The commenter supports inclusion of the numeric limits for PCBs included in the Draft Permit. While EPA continues to agree that inclusion of the numeric limits is one way to ensure compliance with the Massachusetts surface water quality standards for PCBs, as discussed in Response to Comment 2.A.V.a, EPA has also determined that, given the infeasibility of the numeric limits, BMPs provide an alternative approach that ensures compliance with water quality standards and satisfies the CWA. EPA notes the commenter's characterization of PCBs and its effects on human health and the environment.

With respect to the commenter's claims related to transfer of responsibility, the transfer documents make clear that GE is responsible for all response actions agreed to under the Consent Decree (other than post-removal site control, groundwater, and NAPL-related activities). *See* Definitive Economic Development Agreement (DEDA), Section IV, pp. 11-13. The obligations under the Consent Decree, as explained throughout this document, are distinct from obligations under the CWA. Therefore, while GE is responsible for the response actions, PEDDA is responsible for affirmatively attaining authorization for any discharges to surface waters, including the discharge to Silver Lake authorized in the Final Permit.

Comment letter submitted by Mr. Daniel L. Bianchi, Mayor of Pittsfield, Massachusetts, dated June 5, 2015.

F. Comment by Daniel L. Bianchi

The Pittsfield Economic Development Authority (PEDA) is submitting a detailed comment letter of the Draft Permit. The City of Pittsfield is in general agreement with these comments and will not repeat them here.

In our letter of January 13, 2015 the City indicated that an exploration would occur of transferring PEDA's permit to the City and/or disconnecting the portion of the City's stormwater system that discharges into the PEDA's water quality basin. At this time, the city has no plans to proceed with either of these efforts. The City does plan to work with PEDA to explore sharing of services and cost savings opportunities for stormwater management without formally combining any permits.

The redevelopment of the William Stanley Business Park is the highest priority economic development initiative in the City. Redevelopment at this site is very challenging because

of brownfield issues. This permit may bankrupt PEDA and may make any further redevelopment efforts impossible.

Without getting into the legal and technical issues raised in the PEDA letter, I would like to appeal to reason and fairness. GE, not the City not PEDA, is responsible for the PCBs at this site. If the draft permit is finalized as written, it is logical to conclude that the Consent Order [sic] was flawed, since its purpose was to negotiate a clear, complete, and comprehensive path forward for all parties; EPA, the City, PEDA, GE, the Commonwealth of Massachusetts and the State of Connecticut. Yet, the Consent Order can't be modified without GE's approval. It is unlikely that GE would agree to the modifications relative to the issue. Ironically, because of the Consent Order, we are ineligible for the EPA brownfields funds to assist with additional needed remediation.

It is the City's opinion that, with further investments of time effort and funds, a detailed and specific Best Management Practices (BMP) approach can be developed as an acceptable alternative to the effluent limits proposed in the draft permit. If the BMP proposal outlined in PEDA's comment letter is found to insufficient, we request that the City be given the opportunity to remedy the situation prior to EPA issuing the final permit.

Thank you for the opportunity to make these comments. We hope that, as has been the case in the past, EPA will work with the City and PEDA to arrive at an acceptable path forward that is both protective of the environment, but also fair and reasonable to the citizens of the City of Pittsfield.

Response to Comment F.

In its comment the City of Pittsfield explains that it currently has no plans to transfer this permit from PEDA to the City or disconnect the City's stormwater system from the PEDA property. The City will however continue to "explore sharing of services and cost savings opportunities for stormwater management." EPA supports and encourages such ongoing efforts.

As the commenter requests, EPA has developed and included a BMP approach to addressing PCB discharges in the Final Permit. See Response to Comment 2.A.V.a.

Finally, with respect to the commenter's characterization and complaints about the Consent Decree, please see Responses to Comments 2.A.III.a-b, 2.B.II.b.2, and elsewhere in this document.

**AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Federal Clean Water Act as amended (33 U.S.C. §1251 et seq.; the “CWA”), and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53),

**Pittsfield Economic Development Authority
81 Kellogg Street
Pittsfield, Massachusetts 01201**

is authorized to discharge from the facility located at

**William Stanley Business Park of the Berkshires
Generally bounded by East Street,
Silver Lake Boulevard, Kellogg Street, and Tyler Street
Pittsfield, Massachusetts 01201**

to receiving waters named the

**Silver Lake
(Housatonic River Watershed)**

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on the first day of the calendar month following sixty (60) days after signature if comments are received. If no comments are received, this permit shall become effective upon signature.

This permit expires at midnight, five (5) years from the last day of the month preceding the effective date.

This permit supersedes Permit MA0003891 that became on effective February 7, 1992.

This permit consists of 13 pages in Part I including effluent limitations and monitoring requirements; Attachment A (Example Effluent Monitoring Summary Table); Attachment B (Freshwater Acute Toxicity Test Procedure and Protocol (February 2011), Attachment C (Freshwater Chronic Toxicity Test Procedure and Protocol, 2007) and 25 pages in Part II including Standard Conditions.

Signed this day of

Ken Moraff, Director
Office of Ecosystem Protection
Environmental Protection Agency
Boston, MA

David Ferris, Director
Massachusetts Wastewater Management Program
Department of Environmental Protection
Commonwealth of Massachusetts
Boston, MA

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge stormwater and contaminated groundwater infiltration which commingle in the water quality basin prior to discharge, through outfall serial number **001** (flow from the water quality basin) to Silver Lake. The discharge will be limited and monitored by the permittee as specified below. Samples shall be collected from the box culvert that receives final effluent from the water quality basin, unless otherwise specified. Samples shall be representative of the discharge.

Effluent Characteristic	Unit	Discharge Limitation		Monitoring Requirement	
		Average Monthly	Maximum Daily	Measurement Frequency ²	Sample Type
Flow ¹	MGD	Report	Report	Continuous	Recorder
Oil and Grease	mg/L	Report	15	1/Week	Grab
TSS	mg/L	27	45	1/Week	Grab
pH	6.5 – 8.3 S.U.			1/Week	Grab
Escherichia coli	cfu/100 ml	Report	Report	1/Quarter	Grab
Total Phosphorus	mg/L	Report	Report	1/Quarter	Grab
Total Nitrogen	mg/L lbs/day	Report	Report	1/Quarter	Grab
PCBs, Total Aroclors ³	µg/L	0.000064 µg/L	Report	1/Month	Grab
Whole Effluent Toxicity ^{4, 5, 6, 7}	Acute LC50 – Report Chronic C-NOEC – Report				
Total Hardness	mg/L	Report	Report	1/Quarter	Grab
Total Suspended Solids	mg/L				
Specific Conductance	µmhos/cm				
Ammonia Nitrogen	mg/l				
Total Residual Chlorine	µg/L				
Total Cadmium	µg/L				
Total Chromium	µg/L				
Total Lead	µg/L				
Total Copper	µg/L				
Total Zinc	µg/L				
Total Nickel	µg/L				
Total Aluminum	µg/L				

Footnotes:

1. Report the monthly average and maximum daily flows. The monthly average flow is defined as the average flow per day of discharge. Also, report the flow and precipitation for each day of the month as an attachment to the DMR. An example summary table is shown in Attachment A.
2. In addition to the specific reporting required on the DMR, attach a summary of all samples collected for this discharge during the reporting period, showing the results of each sample per calendar day. If an analyte is not detected, record the practical quantitation limit (PQL) for each analyte. The PQL is the lowest concentration that can be reliably measured within specified limits of precision and accuracy for a specific laboratory analytical method during routine laboratory operating conditions. When an analyte is not detected above the PQL, the Permittee must report using the data qualifier signifying less than the PQL for that analyte (i.e. <0.1 µg/L, if the PQL for an analyte is 0.1 µg/L). An example summary table is shown in Attachment A.
3. The average monthly limit for total polychlorinated biphenyls (PCBs) is 0.000064 µg/L. The minimum level (ML) for analysis for total PCBs shall be no greater than 0.022 µg/L. The ML is not the minimum level of detection, but rather the lowest level at which the test equipment produces a recognizable signal and acceptable calibration point for an analyte, representative of the lowest concentration at which an analyte can be measured with a known level of confidence.

Provide the results of PCB analyses as the sum of all Aroclors. The compliance level for total PCBs shall be equal to the ML for analysis for total PCBs, provided it is 0.022 µg/L or less. A detection of PCBs over 0.022 µg/L or an ML greater than 0.022 µg/L will be considered a violation.

4. Conduct acute and chronic toxicity tests four times per year. Test the daphnid, *Ceriodaphnia dubia*, and the fathead minnow, *Pimiphales v promelas*. Collect toxicity test samples once during each quarter. Submit the test results by the last day of the month following the completion of the test (i.e. for a March test, the deadline is April 30th). Perform the tests in accordance with test procedures and protocols specified in **Attachments B and C** of this permit.

Test Dates	Submit Results By:	Test Species	Chronic Limit C-NOEC	Acute Limit LC50
January - March April - June July - September October - December	the 30 th day of the month following the test.	<i>Ceriodaphnia dubia</i> (daphnid) <i>Pimiphales promelas</i> (fathead minnow)	Report	Report

5. C-NOEC (chronic-no observed effect concentration) is defined as the highest concentration of toxicant or effluent to which organisms are exposed in a life cycle or partial life cycle test which causes no adverse effect on growth, survival, or reproduction, based on a statistically significant difference from dilution control, at a specific time of observation as determined from hypothesis testing. As described in the EPA WET Method Manual EPA 821-R-02-013, Section 10.2.6.2, all test results are to be reviewed and reported in accordance with EPA guidance on the evaluation of the concentration-response relationship.
6. The LC50 is the concentration of effluent which causes mortality to 50% of the test organisms.
7. If toxicity test(s) using receiving water as diluent show the receiving water to be toxic or unreliable, either follow procedures outlined in **Attachments B and C (Toxicity Test Procedure and Protocol) Section IV., DILUTION WATER** in order to obtain an individual approval for use of an alternate dilution water, or follow the Self-Implementing Alternative Dilution Water Guidance, which may be used to obtain automatic approval of an alternate dilution water, including the appropriate species for use with that water. This guidance is found in Attachment G of *NPDES Permit Program Instructions for the Discharge Monitoring Report Forms (DMRs)*, which may be found on the EPA Region I web site at <http://www.epa.gov/Region1/enforcementandassistance/dmr.html>. If this guidance is revoked, revert to obtaining individual approval as outlined in **Attachments B and C**. Any modification or revocation to this guidance will be transmitted to the permittees. However, at any time, the permittee may choose to contact EPA-New England directly using the approach outlined in **Attachment B**.

PART I.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. The discharge shall not cause a violation of the water quality standards of the receiving waters.
3. The discharge will not cause objectionable discoloration of the receiving waters.
4. The effluent will contain neither a visible oil sheen, foam, nor floating solids at any time.
5. All existing manufacturing, commercial, mining, and silvaculture dischargers must notify the Director as soon as they know or have reason to believe:
 - a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
 - (1) One hundred micrograms per liter (100 µg/l);
 - (2) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2, 4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or

- (4) The level established by the Director in accordance with 40 CFR §122.44(f).
 - b. That activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
 - (1) Five hundred micrograms per liter (500 µg/l);
 - (2) One milligram per liter (mg/l) for antimony;
 - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR §122.21(g)(7); or
 - (4) The level established by the Director in accordance with 40 CFR §122.44(f).
 - c. That the permittee has begun or expects to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.
- 6. This permit may be modified, or revoked and reissued, on the basis of new information in accordance with 40 CFR §122.62.
- 7. Properly operate and maintain all treatment systems.
- 8. Toxics Control
 - a. The permittee will not discharge any pollutant or combination of pollutants in toxic amounts.
 - b. Any toxic components of the effluent will not result in any demonstrable harm to aquatic life or violate any state or federal water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.
- 9. Numerical Effluent Limitations for Toxicants

EPA or the MassDEP may use the results of the toxicity tests and chemical analysis conducted pursuant to this permit, as well as national water quality criteria developed pursuant to Section 304(a) (1) of the Clean Water Act (CWA), state water quality criteria, and any other appropriate information or data, to develop numerical effluent limitations for any pollutants, including but not limited to those pollutants listed in Appendix D of 40 CFR §122.

B. REOPENER CLAUSE

The results of sampling required by the permit shall constitute new information within the meaning of 40 CFR. §122.62(a) (2) and shall be assessed by EPA during the term of the permit. If the results demonstrate that the permit as written is insufficiently stringent to comply with applicable water quality standards for toxics, including PCBs, EPA may re-open and modify the permit's terms to impose additional BMPs and/or numeric effluent limitations sufficient to ensure compliance with such water quality standards.

C. STORMWATER POLLUTION PREVENTION PLAN

1. Develop, implement, and maintain a Stormwater Pollution Prevention Plan (SWPPP) designed to reduce, or prevent, the discharge of pollutants in stormwater to the receiving waters identified in this permit. The SWPPP shall be a written document that is consistent with the terms of this permit. Additionally, the SWPPP shall serve as a tool to document the permittee's compliance with the terms of this permit. Development guidance and a recommended format for the SWPPP are available on the EPA website for the Multi-Sector General Permit (MSGP) for Stormwater Discharges Associated with Industrial Activities (<http://cfpub.epa.gov/npdes/stormwater/msgp.cfm>).
2. Complete or update and certify the SWPPP within 90 days after the effective date of this permit. Certify that the SWPPP has been completed or updated and shall be signed in accordance with the requirements identified in 40 CFR §122.22. Send a copy of this initial certification to EPA and MassDEP within one hundred and twenty (120) days of the effective date of this permit.
3. Prepare the SWPPP in accordance with good engineering practices and ensure the SWPPP is consistent with the general provisions for SWPPPs included in the most current version of the MSGP. In the current MSGP (effective September 29, 2008), the general SWPPP provisions are included in Part 5. Specifically, the SWPPP shall document the selection, design, and installation of control measures and contain the elements listed below:
 - a. A pollution prevention team with collective and individual responsibilities for developing, implementing, maintaining, revising and ensuring compliance with the SWPPP.
 - b. A site description which includes the activities at the facility; a general location map showing the facility, receiving waters, and outfall locations; and a site map showing the extent of significant structures and impervious surfaces, directions of stormwater flows, and locations of all existing structural control measures, stormwater conveyances, pollutant sources (identified in Part 3.c. below), stormwater monitoring points, stormwater inlets and outlets, and industrial activities exposed to precipitation such as storage, disposal, material handling.
 - c. A summary of all pollutant sources that includes a list of activities exposed to stormwater, the pollutants associated with these activities, a description of where spills have occurred or could occur, a description of non-stormwater discharges, and a summary of any existing stormwater discharge sampling data.
 - d. A description of all stormwater controls, both structural and non-structural.
 - e. A schedule and procedure for implementation and maintenance of the control measures described above and for the quarterly inspections and best management practices (BMPs) described below.
4. The SWPPP shall document the appropriate best management practices (BMPs) implemented or to be implemented at the facility to minimize the discharge of pollutants in stormwater to waters of the United States and to satisfy the non-numeric technology-based effluent limitations included in this permit. At a minimum, these BMPs shall be consistent with the control measures described in the most current version of the MSGP. In the current MSGP, these control measures are described in Part 2.1.2. Specifically, BMPs must be selected and implemented to satisfy the

following non-numeric technology-based effluent limitations:

- a. Minimizing exposure of manufacturing, processing, and material storage areas to stormwater discharges.
 - b. Good housekeeping measures designed to maintain areas that are potential sources of pollutants.
 - c. Preventative maintenance programs to avoid leaks, spills, and other releases of pollutants in stormwater discharged to receiving waters.
 - d. Spill prevention and response procedures to ensure effective response to spills and leaks if or when they occur.
 - e. Erosion and sediment controls designed to stabilize exposed areas and contain runoff using structural and/or non-structural control measures to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants.
 - f. Runoff management practices to divert, infiltrate, reuse, contain, or otherwise reduce stormwater runoff.
 - g. Proper handling procedures for salt or materials containing chlorides that are used for snow and ice control.
5. In addition to the sampling required in Part I.A.1., all structural controls used to comply with effluent limits in this permit shall be inspected, at least once per quarter, by qualified personnel with one or more members of the stormwater pollution prevention team. Inspections shall begin during the 1st full quarter after the effective date of this permit. EPA considers quarters as follows: January to March, April to June, July to September, and October to December. Each inspection must include a visual assessment of stormwater samples (from each outfall), which shall be collected within the first 30 minutes of discharge from a storm event, stored in a clean, clear glass or plastic container, and examined in a well-lit area for the following water quality characteristics: color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of pollution. Document the following information for each inspection and maintain the records along with the SWPPP:
- a. The date and time of the inspection and at which any samples were collected;
 - b. The name(s) and signature(s) of the inspector(s)/sample collector(s);
 - c. If applicable, why it was not possible to take samples within the first 30 minutes;
 - d. Weather information and a description of any discharges occurring at the time of the inspection;
 - e. Results of observations of stormwater discharges, including any observed discharges of pollutants and the probable sources of those pollutants;
 - f. Any control measures needing maintenance, repairs or replacement; and,
 - g. Any additional control measures needed to comply with the permit requirements.
6. Amend and update the SWPPP within 14 days of any changes at the facility that result in a significant effect on the potential for the discharge of pollutants to the waters of the United States. Such changes may include, but are not limited to: a change in design, construction, operation, or maintenance, materials storage, or activities at the facility; a release of a reportable quantity of pollutants as described in 40 CFR §302; or a determination by the permittee or EPA that the BMPs included in the SWPPP appear to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with industrial activity.

7. Any amended, modified, or new versions of the SWPPP shall be re-certified and signed by the permittee in accordance with the requirements identified in 40 CFR §122.22. Also, certify annually, by March 15, that the previous year's inspections and maintenance activities were conducted, results recorded, records maintained, and that the facility is in compliance with this permit. If the facility is not in compliance with any aspect of this permit, the annual certification shall state the non-compliance and the remedies which are being undertaken. Such annual certifications also shall be signed in accordance with the requirements identified in 40 CFR §122.22. Maintain at the facility a copy of its current SWPPP and all SWPPP certifications (the initial certification, re-certifications, and annual certifications) signed during the effective period of this permit, and shall make these available for inspection by EPA and MassDEP. In addition, document in the SWPPP any violation of numerical or non-numerical stormwater effluent limits with a date and description of the corrective actions taken.
8. The following site-specific BMPs shall be included in the SWPPP:
 - a. Pipeline Cleaning and Inspection
 - i. Perform at least one hydraulic pressure washing of the interior surfaces of any active storm sewer piping draining to the north forebay to remove accumulated debris.
 - ii. Conduct video inspection (following pipe cleaning) of active storm sewer piping draining to the north forebay to assess pipe integrity.
 - iii. Complete the activities in this BMP within 1 year of the effective date of the permit and submit a report summarizing pipeline cleaning and inspection activities.
 - iv. This requirement does not apply to stormwater infrastructure installed after 2005. Also, the stormwater piping cleaning and inspection work can be supplemented, or potentially replaced, by a program to plug existing stormwater pipes and provide an acceptable alternative infiltration and/or draining system that does not contribute pollutants to Outfall 001.
 - b. Maintenance and Debris Removal from Sediment Forebays and the Water Quality Basin

Within 6 months of the effective date of the permit, begin performing monthly inspections (including debris thickness measurements) of each sediment forebay and the water quality basin. During the inspections:

- i. Measure debris thickness from the floor of each forebay and the water quality basin. At least 3 measurements must be taken in the deepest part of each forebay during each inspection. On an annual basis, collect a minimum of 5 measurements of the sediment thickness from the water quality basin.
- ii. Remove accumulated debris from sediment forebays every 6 months, or sooner if average thickness of debris observed during monthly inspections exceeds 12 inches. Remove sediment from the water quality basin if the calculated pool volume has been reduced by 25% due to sediment accumulation. Otherwise, remove sediment every 5 years to restore the basin to its original elevations.

- iii. Check for signs of rilling and gullyng and inspect the rock spillways and berms separating the forebays from the water quality basin and repair as needed. Inspect the sidewalls of the water quality basin for erosion and sloughing and repair as needed. After removing sediment, replace any vegetation damaged during the clean-out by either reseeding or resodding. When reseeding, incorporate practices such as hydroseeding with a tackifier, blanket, or similar practice to ensure that no scour occurs in the forebay while the seeds germinate and develop roots.

c. Debris Removal from Manholes and Catch Basins

- i. Within 6 months of the effective date of the permit, perform an initial inspection and removal of accumulated debris and sediment from all storm sewer manholes and catch basins on the PEDAsite that drain to Outfall 001.
- ii. Within one year of the effective date of the permit, optimize routine cleaning and maintenance of catch basins and any catch basin inserts on its site that drain to Outfall 001 such that the following conditions are met:
 - 1. Establish a frequency of routine cleaning that will ensure that no catch basin shall be more than 50 percent full.
 - 2. Prioritize inspection and maintenance for catch basins located near construction activities (roadway construction, residential, commercial, or industrial development or redevelopment). Clean catch basins in such areas more frequently if inspection and maintenance activities indicate excessive sediment or debris loadings.
 - 3. If a catch basin sump (i.e. vertical space between catch basin outlet and bottom) is more than 50 percent full during two consecutive routine cleaning events, investigate the contributing drainage area for sources of excessive sediment loading, and to the extent practicable, abate contributing sources. Describe any actions taken in its annual report.
 - 4. For the purposes of this part, an excessive sediment or debris loading is a catch basin sump more than 50 percent full. A catch basin sump is more than 50 percent full if the contents within the sump exceed one half the distance between the bottom interior of the catch basin to the invert of the deepest outlet of the catch basin.

d. Street Sweeping

Establish and implement procedures for sweeping and/or cleaning streets, and permittee-owned parking lots. Sweep and/or clean all streets and parking lots on the PEDAsite a minimum of twice per year in the spring (following winter activities such as sanding) and fall (to collect leaf litter). The procedures shall also include more frequent sweeping of targeted areas determined by the permittee on the basis of pollutant load reduction potential, based on inspections, pollutant loads, catch basin cleaning or inspection results, land use, water quality limited or TMDL waters or other relevant factors as determined by the permittee. Include in each annual report the number of miles cleaned and the volume or mass of material removed.

e. Open Space Management

Establish procedures to address the proper use, storage, and disposal of pesticides, herbicides, and fertilizers including minimizing the use of these products and using only in accordance manufacturer's instruction. Evaluate lawn maintenance and landscaping activities to ensure practices are protective of water quality. Protective practices include reduced mowing frequencies, proper disposal of lawn clippings, and use of alternative landscaping materials (e.g., drought resistant planting).

9. Report all activities, results, and future actions required in Part I.C.8 in an Annual Report of Site-specific BMPs to be submitted to EPA and MassDEP on March 15 of each year following the anniversary of the effective date of the permit.

D. RECORD KEEPING

Keep all records required by this permit for a period of at least five years. EPA may extend this period at any time. Records include information used in the development of any written program required by this permit, any monitoring results, copies of reports, records of screening, follow-up and elimination of illicit discharges; maintenance records; inspection records; and data used in the development of the SWPPP, and annual reports. This list provides examples of records that should be maintained, but is not all inclusive.

E. MONITORING AND REPORTING

The monitoring program in the permit specifies sampling and analysis, which will provide continuous information on compliance and the reliability and effectiveness of the installed pollution abatement equipment. The approved analytical procedures found in 40 CFR Part 136 are required unless other procedures are explicitly required in the permit. The Permittee is obligated to monitor and report sampling results to EPA and the MassDEP within the time specified within the permit.

Unless otherwise specified in this permit, the permittee shall submit reports, requests, and information and provide notices in the manner described in this section.

1. Submittal of DMRs and the Use of NetDMR

Beginning the effective date of the permit the permittee must submit its monthly monitoring data in discharge monitoring reports (DMRs) to EPA and MassDEP no later than the 15th day of the month following the completed reporting period. **For a period of six months from the effective date of the permit**, the permittee may submit its monthly monitoring data in DMRs to EPA and MassDEP either in hard copy form, as described in Part I.E.5, or in DMRs electronically submitted using NetDMR. NetDMR is a web-based tool that allows permittees to electronically submit DMRs and other required reports via a secure internet connection. NetDMR is accessed from: <http://www.epa.gov/netdmr>. **Beginning no later than six months after the effective date of the permit**, the permittee shall begin reporting monthly monitoring data using NetDMR, unless, in accordance with Part I.E.7, the facility is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for submitting DMRs. The permittee must continue to use the NetDMR after the permittee begins to do so.

When a permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs to EPA or MassDEP.

2. Submittal of Reports as NetDMR Attachments

After the permittee begins submitting DMR reports to EPA electronically using NetDMR, the permittee shall electronically submit all reports to EPA as NetDMR attachments rather than as hard copies, unless otherwise specified in this permit. Permittees shall continue to send hard copies of reports other than DMRs to MassDEP until further notice from MassDEP. (See Part I.F.6. for more information on state reporting.) Because the due dates for reports described in this permit may not coincide with the due date for submitting DMRs (which is no later than the 15th day of the month), a report submitted electronically as a NetDMR attachment shall be considered timely if it is electronically submitted to EPA using NetDMR with the next DMR due following the particular report due date specified in this permit.

3. Submittal of Requests and Reports to EPA/OEP

The following requests, reports, and information described in this permit shall be submitted to the EPA/OEP NPDES Applications Coordinator in the EPA Office Ecosystem Protection (OEP).

- A. Transfer of Permit notice
- B. Request for changes in sampling location
- C. Request for reduction in testing frequency
- D. Request for Reduction in WET Testing Requirement
- E. Report on unacceptable dilution water / request for alternative dilution water for WET testing
- F. Notification of proposal to add or replace chemicals and bio-remedial agents including microbes
- G. SWPPP Certification

These reports, information, and requests shall be submitted to EPA/OEP electronically at R1NPDES.Notices.OEP@epa.gov or by hard copy mail to the following address:

**U.S. Environmental Protection Agency
Office of Ecosystem Protection
EPA/OEP NPDES Applications Coordinator
5 Post Office Square - Suite 100 (OEP06-03)
Boston, MA 02109-3912**

4. Submittal of Reports in Hard Copy Form

The following notifications and reports shall be submitted as hard copy with a cover letter describing the submission. These reports shall be signed and dated originals submitted to EPA.

- A. Written notifications required under Part II
- B. Notice of unauthorized discharges
- C. Reports and DMRs submitted prior to the use of NetDMR

This information shall be submitted to EPA/OES at the following address:

**U.S. Environmental Protection Agency
Office of Environmental Stewardship (OES)
Water Technical Unit
5 Post Office Square, Suite 100 (OES04-4)
Boston, MA 02109-3912**

5. State Reporting

Unless otherwise specified in this permit, duplicate signed copies of all reports, information, requests or notifications described in this permit, including the reports, information, requests or notifications described in Parts I.E.2, I.E.3, and I.E.4 also shall be submitted to the State at the following addresses:

**MassDEP – Western Region
Bureau of Waste Prevention
436 Dwight Street, Suite 402
Springfield, MA 01103**

Copies of toxicity tests only shall be submitted to:

**Massachusetts Department of Environmental Protection
Surface Water Discharge Permit Program
627 Main Street, 2nd Floor
Worcester, Massachusetts 01608**

6. Submittal of NetDMR Opt-Out Requests

NetDMR opt-out requests must be submitted in writing to EPA for written approval at least sixty (60) days prior to the date a facility would be required under this permit to begin using NetDMR. This demonstration shall be valid for twelve (12) months from the date of EPA approval and shall thereupon expire. At such time, DMRs and reports shall be submitted electronically to EPA unless the permittee submits a renewed opt-out request and such request is approved by EPA. All opt-out requests should be sent to the following addresses:

**Attn: NetDMR Coordinator
U.S. Environmental Protection Agency, Water Technical Unit
5 Post Office Square, Suite 100 (OES04-4)
Boston, MA 02109-3912**

And

**Massachusetts Department of Environmental Protection
Surface Water Discharge Permit Program
1 Winter Street
Boston, MA 02108**

7. Verbal Reports and Verbal Notifications

Any verbal reports or verbal notifications, if required in Parts I and/or II of this permit, shall be made to both EPA and to MassDEP. This includes verbal reports and notifications which require reporting within 24 hours. (As examples, see Part II.B.4.c. (2), Part II.B.5.c. (3), and Part II.D.1.e.) Verbal reports and verbal notifications shall be made to EPA's Office of Environmental Stewardship at:

**U.S. Environmental Protection Agency
Office of Environmental Stewardship
5 Post Office Square, Suite 100 (OES04-4)
Boston, MA 02109-3912
617-918-1510**

F. STATE PERMIT CONDITIONS

This authorization to discharge includes two separate and independent permit authorizations. The two permit authorizations are (i) a federal National Pollutant Discharge Elimination System permit issued by the U.S. Environmental Protection Agency (EPA) pursuant to the Federal Clean Water Act, 33 U.S.C. §§1251 et seq.; and (ii) an identical state surface water discharge permit issued by the Commissioner of the Massachusetts Department of Environmental Protection (MassDEP) pursuant to the Massachusetts Clean Waters Act, M.G.L. c. 21, §§26-53, and 314 C.M.R. 3.00. All of the requirements contained in this authorization, as well as the standard conditions contained in 314 CMR 3.19, are hereby incorporated by reference into this state surface water discharge permit.

This authorization also incorporates the state water quality certification issued by MassDEP under § 401(a) of the Federal Clean Water Act, 40 CFR 124.53, M.G.L. c. 21, §27 and 314 CMR 3.07. All of the requirements (if any) contained in MassDEP's water quality certification for the permit are hereby incorporated by reference into this state surface water discharge permit as special conditions pursuant to 314 CMR 3.11.

Each agency shall have the independent right to enforce the terms and conditions of this permit. Any modification, suspension or revocation of this permit shall be effective only with respect to the agency taking such action, and shall not affect the validity or status of this permit as issued by the other agency, unless and until each agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this permit is declared invalid, illegal or otherwise issued in violation of state law such permit shall remain in full force and effect under federal law as a NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this permit is declared invalid, illegal or otherwise issued in violation of federal law, this permit shall remain in full force and effect under state law as a permit issued by the Commonwealth of Massachusetts.

Attachment A
 Example Effluent Monitoring Summary Table
 Outfall 001

Month:

Date	Precipitation Total (inches)	Total Flow (million gallons)	Oil and grease* (mg/L)	TSS* (mg/L)	pH (s.u.)	Total PCBs* (µg/L)	Other Parameters*, Comments, etc.
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
minimum							
average							
maximum							

*(if below the Practical Quantitation Limit, express result as ">{PQL value}.")

ATTACHMENT B
**USEPA REGION 1 FRESHWATER ACUTE
TOXICITY TEST PROCEDURE AND PROTOCOL**

I. GENERAL REQUIREMENTS

The permittee shall conduct acceptable acute toxicity tests in accordance with the appropriate test protocols described below:

- **Daphnid (Ceriodaphnia dubia) definitive 48 hour test.**
- **Fathead Minnow (Pimephales promelas) definitive 48 hour test.**

Acute toxicity test data shall be reported as outlined in Section VIII.

II. METHODS

The permittee shall use 40 CFR Part 136 methods. Methods and guidance may be found at:

http://water.epa.gov/scitech/methods/cwa/wet/disk2_index.cfm

The permittee shall also meet the sampling, analysis and reporting requirements included in this protocol. This protocol defines more specific requirements while still being consistent with the Part 136 methods. If, due to modifications of Part 136, there are conflicting requirements between the Part 136 method and this protocol, the permittee shall comply with the requirements of the Part 136 method.

III. SAMPLE COLLECTION

A discharge sample shall be collected. Aliquots shall be split from the sample, containerized and preserved (as per 40 CFR Part 136) for chemical and physical analyses required. The remaining sample shall be measured for total residual chlorine and dechlorinated (if detected) in the laboratory using sodium thiosulfate for subsequent toxicity testing. (Note that EPA approved test methods require that samples collected for metals analyses be preserved immediately after collection.) Grab samples must be used for pH, temperature, and total residual chlorine (as per 40 CFR Part 122.21).

Standard Methods for the Examination of Water and Wastewater describes dechlorination of samples (APHA, 1992). Dechlorination can be achieved using a ratio of 6.7 mg/L anhydrous sodium thiosulfate to reduce 1.0 mg/L chlorine. If dechlorination is necessary, a thiosulfate control (maximum amount of thiosulfate in lab control or receiving water) must also be run in the WET test.

All samples held overnight shall be refrigerated at 1- 6°C.

IV. DILUTION WATER

A grab sample of dilution water used for acute toxicity testing shall be collected from the receiving water at a point immediately upstream of the permitted discharge's zone of influence at a reasonably accessible location. Avoid collection near areas of obvious road or agricultural runoff, storm sewers or other point source discharges and areas where stagnant conditions exist. In the case where an alternate dilution water has been agreed upon an additional receiving water control (0% effluent) must also be tested.

If the receiving water diluent is found to be, or suspected to be toxic or unreliable, an alternate standard dilution water of known quality with a hardness, pH, conductivity, alkalinity, organic carbon, and total suspended solids similar to that of the receiving water may be substituted **AFTER RECEIVING WRITTEN APPROVAL FROM THE PERMIT ISSUING AGENCY(S)**. Written requests for use of an alternate dilution water should be mailed with supporting documentation to the following address:

Director
Office of Ecosystem Protection (CAA)
U.S. Environmental Protection Agency-New England
5 Post Office Sq., Suite 100 (OEP06-5)
Boston, MA 02109-3912

and

Manager
Water Technical Unit (SEW)
U.S. Environmental Protection Agency
5 Post Office Sq., Suite 100 (OES04-4)
Boston, MA 02109-3912

Note: USEPA Region 1 retains the right to modify any part of the alternate dilution water policy stated in this protocol at any time. Any changes to this policy will be documented in the annual DMR posting.

See the most current annual DMR instructions which can be found on the EPA Region 1 website at <http://www.epa.gov/region1/enforcement/water/dmr.html> for further important details on alternate dilution water substitution requests.

It may prove beneficial to have the proposed dilution water source screened for suitability prior to toxicity testing. EPA strongly urges that screening be done prior to set up of a full definitive toxicity test any time there is question about the dilution water's ability to support acceptable performance as outlined in the 'test acceptability' section of the protocol.

V. TEST CONDITIONS

The following tables summarize the accepted daphnid and fathead minnow toxicity test conditions and test acceptability criteria:

EPA NEW ENGLAND EFFLUENT TOXICITY TEST CONDITIONS FOR THE DAPHNID, CERIODAPHNIA DUBIA 48 HOUR ACUTE TESTS¹

1.	Test type	Static, non-renewal
2.	Temperature (°C)	20 ± 1°C or 25 ± 1°C
3.	Light quality	Ambient laboratory illumination
4.	Photoperiod	16 hour light, 8 hour dark
5.	Test chamber size	Minimum 30 ml
6.	Test solution volume	Minimum 15 ml
7.	Age of test organisms	1-24 hours (neonates)
8.	No. of daphnids per test chamber	5
9.	No. of replicate test chambers per treatment	4
10.	Total no. daphnids per test concentration	20
11.	Feeding regime	As per manual, lightly feed YCT and <u>Selenastrum</u> to newly released organisms while holding prior to initiating test
12.	Aeration	None
13.	Dilution water ²	Receiving water, other surface water, synthetic water adjusted to the hardness and alkalinity of the receiving water (prepared using either Millipore Milli-Q ^R or equivalent deionized water and reagent grade chemicals according to EPA acute toxicity test manual) or deionized water combined with mineral water to appropriate hardness.
14.	Dilution series	≥ 0.5, must bracket the permitted RWC
15.	Number of dilutions	5 plus receiving water and laboratory water control and thiosulfate control, as necessary. An additional dilution at the permitted effluent concentration (% effluent) is required if it is not included in the dilution

series.

- | | |
|----------------------------|---|
| 16. Effect measured | Mortality-no movement of body or appendages on gentle prodding |
| 17. Test acceptability | 90% or greater survival of test organisms in dilution water control solution |
| 18. Sampling requirements | For on-site tests, samples must be used within 24 hours of the time that they are removed from the sampling device. For off-site tests, samples must first be used within 36 hours of collection. |
| 19. Sample volume required | Minimum 1 liter |

Footnotes:

1. Adapted from EPA-821-R-02-012.
2. Standard prepared dilution water must have hardness requirements to generally reflect the characteristics of the receiving water.

**EPA NEW ENGLAND TEST CONDITIONS FOR THE FATHEAD MINNOW
(PIMEPHALES PROMELAS) 48 HOUR ACUTE TEST¹**

1. Test Type	Static, non-renewal
2. Temperature (°C)	20 ± 1 ° C or 25 ± 1°C
3. Light quality	Ambient laboratory illumination
4. Photoperiod	16 hr light, 8 hr dark
5. Size of test vessels	250 mL minimum
6. Volume of test solution	Minimum 200 mL/replicate
7. Age of fish	1-14 days old and age within 24 hrs of each other
8. No. of fish per chamber	10
9. No. of replicate test vessels per treatment	4
10. Total no. organisms per concentration	40
11. Feeding regime	As per manual, lightly feed test age larvae using concentrated brine shrimp nauplii while holding prior to initiating test
12. Aeration	None, unless dissolved oxygen (D.O.) concentration falls below 4.0 mg/L, at which time gentle single bubble aeration should be started at a rate of less than 100 bubbles/min. (Routine D.O. check is recommended.)
13. dilution water ²	Receiving water, other surface water, synthetic water adjusted to the hardness and alkalinity of the receiving water (prepared using either Millipore Milli-Q ^R or equivalent deionized and reagent grade chemicals according to EPA acute toxicity test manual) or deionized water combined with mineral water to appropriate hardness.
14. Dilution series	≥ 0.5, must bracket the permitted RWC

- | | |
|----------------------------|--|
| 15. Number of dilutions | 5 plus receiving water and laboratory water control and thiosulfate control, as necessary. An additional dilution at the permitted effluent concentration (% effluent) is required if it is not included in the dilution series. |
| 16. Effect measured | Mortality-no movement on gentle prodding |
| 17. Test acceptability | 90% or greater survival of test organisms in dilution water control solution |
| 18. Sampling requirements | For on-site tests, samples must be used within 24 hours of the time that they are removed from the sampling device. For off-site tests, samples are used within 36 hours of collection. |
| 19. Sample volume required | Minimum 2 liters |

Footnotes:

1. Adapted from EPA-821-R-02-012
2. Standard dilution water must have hardness requirements to generally reflect characteristics of the receiving water.

VI. CHEMICAL ANALYSIS

At the beginning of a static acute toxicity test, pH, conductivity, total residual chlorine, oxygen, hardness, alkalinity and temperature must be measured in the highest effluent concentration and the dilution water. Dissolved oxygen, pH and temperature are also measured at 24 and 48 hour intervals in all dilutions. The following chemical analyses shall be performed on the 100 percent effluent sample and the upstream water sample for each sampling event.

<u>Parameter</u>	Effluent	Receiving Water	ML (mg/l)
Hardness ¹	x	x	0.5
Total Residual Chlorine (TRC) ^{2, 3}	x		0.02
Alkalinity	x	x	2.0
pH	x	x	--
Specific Conductance	x	x	--
Total Solids	x		--
Total Dissolved Solids	x		--
Ammonia	x	x	0.1
Total Organic Carbon	x	x	0.5
Total Metals			
Cd	x	x	0.0005
Pb	x	x	0.0005
Cu	x	x	0.003
Zn	x	x	0.005
Ni	x	x	0.005
Al	x	x	0.02
Other as permit requires			

Notes:

- Hardness may be determined by:
 - APHA Standard Methods for the Examination of Water and Wastewater , 21st Edition
 - Method 2340B (hardness by calculation)
 - Method 2340C (titration)
- Total Residual Chlorine may be performed using any of the following methods provided the required minimum limit (ML) is met.
 - APHA Standard Methods for the Examination of Water and Wastewater , 21st Edition
 - Method 4500-CL E Low Level Amperometric Titration
 - Method 4500-CL G DPD Colorimetric Method
- Required to be performed on the sample used for WET testing prior to its use for toxicity testing.

VII. TOXICITY TEST DATA ANALYSIS

LC50 Median Lethal Concentration (Determined at 48 Hours)

Methods of Estimation:

- Probit Method
- Spearman-Kärber
- Trimmed Spearman-Kärber
- Graphical

See the flow chart in Figure 6 on p. 73 of EPA-821-R-02-012 for appropriate method to use on a given data set.

No Observed Acute Effect Level (NOAEL)

See the flow chart in Figure 13 on p. 87 of EPA-821-R-02-012.

VIII. TOXICITY TEST REPORTING

A report of the results will include the following:

- Description of sample collection procedures, site description
- Names of individuals collecting and transporting samples, times and dates of sample collection and analysis on chain-of-custody
- General description of tests: age of test organisms, origin, dates and results of standard toxicant tests; light and temperature regime; other information on test conditions if different than procedures recommended. Reference toxicant test data should be included.
- All chemical/physical data generated. (Include minimum detection levels and minimum quantification levels.)
- Raw data and bench sheets.
- Provide a description of dechlorination procedures (as applicable).
- Any other observations or test conditions affecting test outcome.

ATTACHMENT C
**FRESHWATER CHRONIC
TOXICITY TEST PROCEDURE AND PROTOCOL
USEPA Region 1**

I. GENERAL REQUIREMENTS

The permittee shall be responsible for the conduct of acceptable chronic (and modified acute) toxicity tests using three fresh samples collected during each test period. The following tests shall be performed as prescribed in Part 1 of the NPDES discharge permit in accordance with the appropriate test protocols described below. (Note: the permittee and testing laboratory should review the applicable permit to determine whether testing of one or both species is required).

- **Daphnid (Ceriodaphnia dubia) Survival and Reproduction Test.**
- **Fathead Minnow (Pimephales promelas) Larval Growth and Survival Test.**

Chronic and modified acute toxicity data shall be reported as outlined in Section VIII. The chronic fathead minnow and daphnid test data can be used to calculate an LC50 at the end of 48 hours of exposure when both acute (LC50) and chronic (C-NOEC) test endpoints are specified in the permit.

II. METHODS

Methods to follow are those recommended by EPA in: Short Term Methods For Estimating The Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms, Fourth Edition, October 2002. United States Environmental Protection Agency. Office of Water, Washington, D.C., EPA 821-R-02-013. The methods are available on-line at <http://www.epa.gov/waterscience/WET/> . Exceptions and clarification are stated herein.

III. SAMPLE COLLECTION AND USE

A total of three fresh samples of effluent and receiving water are required for initiation and subsequent renewals of a freshwater, chronic, toxicity test. The receiving water control sample must be collected immediately upstream of the permitted discharge's zone of influence. Fresh samples are recommended for use on test days 1, 3, and 5. However, provided a total of three samples are used for testing over the test period, an alternate sampling schedule is acceptable. The acceptable holding times until initial use of a sample are 24 and 36 hours for on-site and off-site testing, respectively. A written waiver is required from the regulating authority for any hold time extension. All test samples collected may be used for 24, 48 and 72 hour renewals after initial use. All samples held for use beyond the day of sampling shall be refrigerated and maintained at a temperature range of 0-6° C.

All samples submitted for chemical and physical analyses will be analyzed according to Section VI of this protocol.

Sampling guidance dictates that, where appropriate, aliquots for the analysis required in this protocol shall be split from the samples, containerized and immediately preserved, or analyzed as per 40 CFR Part 136. EPA approved test methods require that samples collected for metals analyses be preserved immediately after collection. Testing for the presence of total residual chlorine (TRC) must be analyzed immediately or as soon as possible, for all effluent samples, prior to WET testing. TRC analysis may be performed on-site or by the toxicity testing laboratory and the samples must be dechlorinated, as necessary, using sodium thiosulfate prior to sample use for toxicity testing.

If any of the renewal samples are of sufficient potency to cause lethality to 50 percent or more of the test organisms in any of the test treatments for either species or, if the test fails to meet its permit limits, then chemical analysis for total metals (originally required for the initial sample only in Section VI) will be required on the renewal sample(s) as well.

IV. DILUTION WATER

Samples of receiving water must be collected from a location in the receiving water body immediately upstream of the permitted discharge's zone of influence at a reasonably accessible location. Avoid collection near areas of obvious road or agricultural runoff, storm sewers or other point source discharges and areas where stagnant conditions exist. EPA strongly urges that screening for toxicity be performed prior to the set up of a full, definitive toxicity test any time there is a question about the test dilution water's ability to achieve test acceptability criteria (TAC) as indicated in Section V of this protocol. The test dilution water control response will be used in the statistical analysis of the toxicity test data. All other control(s) required to be run in the test will be reported as specified in the Discharge Monitoring Report (DMR) Instructions, Attachment F, page 2, Test Results & Permit Limits.

The test dilution water must be used to determine whether the test met the applicable TAC. When receiving water is used for test dilution, an additional control made up of standard laboratory water (0% effluent) is required. This control will be used to verify the health of the test organisms and evaluate to what extent, if any, the receiving water itself is responsible for any toxic response observed.

If dechlorination of a sample by the toxicity testing laboratory is necessary a "sodium thiosulfate" control, representing the concentration of sodium thiosulfate used to adequately dechlorinate the sample prior to toxicity testing, must be included in the test.

If the use of an alternate dilution water (ADW) is authorized, in addition to the ADW test control, the testing laboratory must, for the purpose of monitoring the receiving water, also run a receiving water control.

If the receiving water diluent is found to be, or suspected to be toxic or unreliable an ADW of known quality with hardness similar to that of the receiving water may be substituted. Substitution is species specific meaning that the decision to use ADW is made for each species and is based on the toxic response of that particular species. Substitution to an ADW is authorized in two cases. The first is the case where repeating a test due to toxicity in the site dilution water requires an **immediate decision** for ADW use be made by the permittee and toxicity testing laboratory. The second is in the case where two of the most recent documented incidents of unacceptable site dilution water toxicity requires ADW use in future WET testing.

For the second case, written notification from the permittee requesting ADW use **and** written authorization from the permit issuing agency(s) is required **prior to** switching to a long-term use of ADW for the duration of the permit.

Written requests for use of ADW must be mailed with supporting documentation to the following addresses:

Director
Office of Ecosystem Protection (CAA)
U.S. Environmental Protection Agency-New England
One Congress St., Suite 1100
Boston, MA 02114-2023

and

Manager
Water Technical Unit (SEW)
U.S. Environmental Protection Agency
One Congress Street, Suite 1100
Boston, MA 02114-2023

Note: USEPA Region 1 retains the right to modify any part of the alternate dilution water policy stated in this protocol at any time. Any changes to this policy will be documented in the annual DMR posting.

See the most current annual DMR instructions which can be found on the EPA Region 1 website at <http://www.epa.gov/region1/enforcementandassistance/dmr.html> for further important details on alternate dilution water substitution requests.

V. TEST CONDITIONS AND TEST ACCEPTABILITY CRITERIA

Method specific test conditions and TAC are to be followed and adhered to as specified in the method guidance document, EPA 821-R-02-013. If a test does not meet TAC the test must be repeated with fresh samples within 30 days of the initial test completion date.

V.1. Use of Reference Toxicity Testing

Reference toxicity test results and applicable control charts must be included in the toxicity testing report.

If reference toxicity test results fall outside the control limits established by the laboratory for a specific test endpoint, a reason or reasons for this excursion must be evaluated, correction made and reference toxicity tests rerun as necessary.

If a test endpoint value exceeds the control limits at a frequency of more than one out of twenty then causes for the reference toxicity test failure must be examined and if problems are identified corrective action taken. The reference toxicity test must be repeated during the same month in which the exceedance occurred.

If two consecutive reference toxicity tests fall outside control limits, the possible cause(s) for the exceedance must be examined, corrective actions taken and a repeat of the reference toxicity test must take place immediately. Actions taken to resolve the problem must be reported.

V.1.a. Use of Concurrent Reference Toxicity Testing

In the case where concurrent reference toxicity testing is required due to a low frequency of testing with a particular method, if the reference toxicity test results fall slightly outside of laboratory established control limits, but the primary test met the TAC, the results of the primary test will be considered acceptable. However, if the results of the concurrent test fall well outside the established **upper** control limits i.e. ≥ 3 standard deviations for IC25s and LC50 values and \geq two concentration intervals for NOECs or NOAECs, and even though the primary test meets TAC, the primary test will be considered unacceptable and must be repeated.

V.2. For the *C. dubia* test, the determination of TAC and formal statistical analyses must be performed using only the first three broods produced.

V.3. Test treatments must include 5 effluent concentrations and a dilution water control. An additional test treatment, at the permitted effluent concentration (% effluent), is required if it is not included in the dilution series.

VI. CHEMICAL ANALYSIS

As part of each toxicity test's daily renewal procedure, pH, specific conductance, dissolved oxygen (DO) and temperature must be measured at the beginning and end of each 24-hour period in each test treatment and the control(s).

The additional analysis that must be performed under this protocol is as specified and noted in the table below.

<u>Parameter</u>	Effluent	Receiving Water	ML (mg/l)
Hardness ^{1, 4}	x	x	0.5
Total Residual Chlorine (TRC) ^{2, 3, 4}	x		0.02
Alkalinity ⁴	x	x	2.0
pH ⁴	x	x	--
Specific Conductance ⁴	x	x	--
Total Solids ⁶	x		--
Total Dissolved Solids ⁶	x		--
Ammonia ⁴	x	x	0.1
Total Organic Carbon ⁶	x	x	0.5
Total Metals ⁵			
Cd	x	x	0.0005
Pb	x	x	0.0005
Cu	x	x	0.003
Zn	x	x	0.005
Ni	x	x	0.005
Al	x	x	0.02

Other as permit requires

Notes:

1. Hardness may be determined by:

- APHA Standard Methods for the Examination of Water and Wastewater , 21st Edition
 - Method 2340B (hardness by calculation)
 - Method 2340C (titration)
2. Total Residual Chlorine may be performed using any of the following methods provided the required minimum limit (ML) is met.
 - APHA Standard Methods for the Examination of Water and Wastewater , 21st Edition
 - Method 4500-CL E Low Level Amperometric Titration
 - Method 4500-CL G DPD Colorimetric Method
 - USEPA 1983. Manual of Methods Analysis of Water and Wastes
 - Method 330.5
 3. Required to be performed on the sample used for WET testing prior to its use for toxicity testing
 4. Analysis is to be performed on samples and/or receiving water, as designated in the table above, from all three sampling events.
 5. Analysis is to be performed on the initial sample(s) only unless the situation arises as stated in Section III, paragraph 4
 6. Analysis to be performed on initial samples only

VII. TOXICITY TEST DATA ANALYSIS AND REVIEW

A. Test Review

1. Concentration / Response Relationship

A concentration/response relationship evaluation is required for test endpoint determinations from both Hypothesis Testing and Point Estimate techniques. The test report is to include documentation of this evaluation in support of the endpoint values reported. The dose-response review must be performed as required in Section 10.2.6 of EPA-821-R-02-013.

Guidance for this review can be found at

<http://www.epa.gov/ZDMXFIHQFHP HMRGVZ HWSG Z HWXIGHSG> . In most cases, the review will result in one of the following three conclusions: (1) Results are reliable and reportable; (2) Results are anomalous and require explanation; or (3) Results are inconclusive and a retest with fresh samples is required.

2. Test Variability (Test Sensitivity)

This review step is separate from the determination of whether a test meets or does not meet TAC. Within test variability is to be examined for the purpose of evaluating test sensitivity. This evaluation is to be performed for the sub-lethal hypothesis testing endpoints reproduction and growth as required by the permit. The test report is to include documentation of this evaluation to support that the endpoint values reported resulted from a toxicity test of adequate sensitivity. This evaluation must be performed as required in Section 10.2.8 of EPA-821-R-02-013.

To determine the adequacy of test sensitivity, USEPA requires the calculation of test percent minimum significant difference (PMSD) values. In cases where NOEC determinations are made based on a non-parametric technique, calculation of a test PMSD value, for the sole purpose of assessing test sensitivity, shall be calculated using a comparable parametric statistical analysis technique. The calculated test PMSD is then compared to the upper and lower PMSD bounds shown for freshwater tests in Section 10.2.8.3, p. 52, Table 6 of EPA-821-R-02-013. The comparison will yield one of the following determinations.

- The test PMSD exceeds the PMSD upper bound test variability criterion in Table 6, the test results are considered highly variable and the test may not be sensitive enough to determine the presence of toxicity at the permit limit concentration (PLC). If the test results indicate that the discharge is not toxic at the PLC, then the test is considered insufficiently sensitive and must be repeated within 30 days of the initial test completion using fresh samples. If the test results indicate that the discharge is toxic at the PLC, the test is considered acceptable and does not have to be repeated.
- The test PMSD falls below the PMSD lower bound test variability criterion in Table 6, the test is determined to be very sensitive. In order to determine which treatment(s) are statistically significant and which are not, for the purpose of reporting a NOEC, the relative percent difference (RPD) between the control and each treatment must be calculated and compared to the lower PMSD boundary. See *Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications Under the NPDES Program*, EPA 833-R-00-003, June 2002, Section 6.4.2. The following link: [Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications Under the NPDES Program](#) can be used to locate the USEPA website containing this document. If the RPD for a treatment falls below the PMSD lower bound, the difference is considered statistically insignificant. If the RPD for a treatment is greater than the PMSD lower bound, then the treatment is considered statistically significant.
- The test PMSD falls within the PMSD upper and lower bounds in Table 6, the sub-lethal test endpoint values shall be reported as is.

B. Statistical Analysis

1. General - Recommended Statistical Analysis Method

Refer to general data analysis flowchart, EPA 821-R-02-013, page 43

For discussion on Hypothesis Testing, refer to EPA 821-R-02-013, Section 9.6

For discussion on Point Estimation Techniques, refer to EPA 821-R-02-013, Section 9.7

2. *Pimephales promelas*

Refer to survival hypothesis testing analysis flowchart, EPA 821-R-02-013, page 79

Refer to survival point estimate techniques flowchart, EPA 821-R-02-013, page 80

Refer to growth data statistical analysis flowchart, EPA 821-R-02-013, page 92

3. *Ceriodaphnia dubia*

Refer to survival data testing flowchart, EPA 821-R-02-013, page 168

Refer to reproduction data testing flowchart, EPA 821-R-02-013, page 173

VIII. TOXICITY TEST REPORTING

A report of results must include the following:

- Test summary sheets (2007 DMR Attachment F) which includes:
 - Facility name
 - NPDES permit number
 - Outfall number
 - Sample type
 - Sampling method
 - Effluent TRC concentration
 - Dilution water used
 - Receiving water name and sampling location
 - Test type and species
 - Test start date
 - Effluent concentrations tested (%) and permit limit concentration
 - Applicable reference toxicity test date and whether acceptable or not
 - Age, age range and source of test organisms used for testing
 - Results of TAC review for all applicable controls
 - Test sensitivity evaluation results (test PMSD for growth and reproduction)
 - Permit limit and toxicity test results
 - Summary of test sensitivity and concentration response evaluation

In addition to the summary sheets the report must include:

- A brief description of sample collection procedures
- Chain of custody documentation including names of individuals collecting samples, times and dates of sample collection, sample locations, requested analysis and lab receipt with time and date received, lab receipt personnel and condition of samples upon receipt at the lab(s)
- Reference toxicity test control charts
- All sample chemical/physical data generated, including minimum limits (MLs) and analytical methods used
- All toxicity test raw data including daily ambient test conditions, toxicity test chemistry, sample dechlorination details as necessary, bench sheets and statistical analysis
- A discussion of any deviations from test conditions
- Any further discussion of reported test results, statistical analysis and concentration-response relationship and test sensitivity review per species per endpoint

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PART II. A. GENERAL REQUIREMENTS

1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

- a. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirements.
- b. The CWA provides that any person who violates Section 301, 302, 306, 307, 308, 318, or 405 of the CWA or any permit condition or limitation implementing any of such sections in a permit issued under Section 402, or any requirement imposed in a pretreatment program approved under Section 402 (a)(3) or 402 (b)(8) of the CWA is subject to a civil penalty not to exceed \$25,000 per day for each violation. Any person who negligently violates such requirements is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both. Any person who knowingly violates such requirements is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than 3 years, or both.
- c. Any person may be assessed an administrative penalty by the Administrator for violating Section 301, 302, 306, 307, 308, 318, or 405 of the CWA, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the CWA. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.

Note: See 40 CFR §122.41(a)(2) for complete “Duty to Comply” regulations.

2. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or notifications of planned changes or anticipated noncompliance does not stay any permit condition.

3. Duty to Provide Information

The permittee shall furnish to the Regional Administrator, within a reasonable time, any information which the Regional Administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Regional Administrator, upon request, copies of records required to be kept by this permit.

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4. Reopener Clause

The Regional Administrator reserves the right to make appropriate revisions to this permit in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the CWA in order to bring all discharges into compliance with the CWA.

For any permit issued to a treatment works treating domestic sewage (including “sludge-only facilities”), the Regional Administrator or Director shall include a reopener clause to incorporate any applicable standard for sewage sludge use or disposal promulgated under Section 405 (d) of the CWA. The Regional Administrator or Director may promptly modify or revoke and reissue any permit containing the reopener clause required by this paragraph if the standard for sewage sludge use or disposal is more stringent than any requirements for sludge use or disposal in the permit, or contains a pollutant or practice not limited in the permit.

Federal regulations pertaining to permit modification, revocation and reissuance, and termination are found at 40 CFR §122.62, 122.63, 122.64, and 124.5.

5. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from responsibilities, liabilities or penalties to which the permittee is or may be subject under Section 311 of the CWA, or Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

6. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges.

7. Confidentiality of Information

- a. In accordance with 40 CFR Part 2, any information submitted to EPA pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words “confidential business information” on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR Part 2 (Public Information).
- b. Claims of confidentiality for the following information will be denied:
 - (1) The name and address of any permit applicant or permittee;
 - (2) Permit applications, permits, and effluent data as defined in 40 CFR §2.302(a)(2).
- c. Information required by NPDES application forms provided by the Regional Administrator under 40 CFR §122.21 may not be claimed confidential. This includes information submitted on the forms themselves and any attachments used to supply information required by the forms.

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8. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after its expiration date, the permittee must apply for and obtain a new permit. The permittee shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Regional Administrator. (The Regional Administrator shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

9. State Authorities

Nothing in Part 122, 123, or 124 precludes more stringent State regulation of any activity covered by these regulations, whether or not under an approved State program.

10. Other Laws

The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, nor does it relieve the permittee of its obligation to comply with any other applicable Federal, State, or local laws and regulations.

PART II. B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

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

2. Need to Halt or Reduce Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

4. Bypass

a. Definitions

- (1) *Bypass* means the intentional diversion of waste streams from any portion of a treatment facility.

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- (2) *Severe property damage* means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can be reasonably expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypass not exceeding limitations

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of Paragraphs B.4.c. and 4.d. of this section.

c. Notice

- (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
- (2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph D.1.e. of this part (Twenty-four hour reporting).

d. Prohibition of bypass

Bypass is prohibited, and the Regional Administrator may take enforcement action against a permittee for bypass, unless:

- (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
- (3) i) The permittee submitted notices as required under Paragraph 4.c. of this section.
ii) The Regional Administrator may approve an anticipated bypass, after considering its adverse effects, if the Regional Administrator determines that it will meet the three conditions listed above in paragraph 4.d. of this section.

5. Upset

- a. Definition. *Upset* means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph B.5.c. of this section are met. No determination made during

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administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

- c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (2) The permitted facility was at the time being properly operated;
 - (3) The permittee submitted notice of the upset as required in paragraphs D.1.a. and 1.e. (Twenty-four hour notice); and
 - (4) The permittee complied with any remedial measures required under B.3. above.
- d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

PART II. C. MONITORING REQUIREMENTS

1. Monitoring and Records

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- b. Except for records for monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application except for the information concerning storm water discharges which must be retained for a total of 6 years. This retention period may be extended by request of the Regional Administrator at any time.
- c. Records of monitoring information shall include:
 - (1) The date, exact place, and time of sampling or measurements;
 - (2) The individual(s) who performed the sampling or measurements;
 - (3) The date(s) analyses were performed;
 - (4) The individual(s) who performed the analyses;
 - (5) The analytical techniques or methods used; and
 - (6) The results of such analyses.
- d. Monitoring results must be conducted according to test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, unless other test procedures have been specified in the permit.
- e. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by

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imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

2. Inspection and Entry

The permittee shall allow the Regional Administrator or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the CWA, any substances or parameters at any location.

PART II. D. REPORTING REQUIREMENTS

1. Reporting Requirements

- a. **Planned Changes.** The permittee shall give notice to the Regional Administrator as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is only required when:
 - (1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR§122.29(b); or
 - (2) The alteration or addition could significantly change the nature or increase the quantities of the pollutants discharged. This notification applies to pollutants which are subject neither to the effluent limitations in the permit, nor to the notification requirements at 40 CFR§122.42(a)(1).
 - (3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition or change may justify the application of permit conditions different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- b. **Anticipated noncompliance.** The permittee shall give advance notice to the Regional Administrator of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- c. **Transfers.** This permit is not transferable to any person except after notice to the Regional Administrator. The Regional Administrator may require modification or revocation and reissuance of the permit to change the name of the permittee and

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incorporate such other requirements as may be necessary under the CWA. (See 40 CFR Part 122.61; in some cases, modification or revocation and reissuance is mandatory.)

- d. Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.
- (1) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices.
 - (2) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of the monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Director.
 - (3) Calculations for all limitations which require averaging or measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.
- e. Twenty-four hour reporting.
- (1) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances.

A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 - (2) The following shall be included as information which must be reported within 24 hours under this paragraph.
 - (a) Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR §122.41(g).)
 - (b) Any upset which exceeds any effluent limitation in the permit.
 - (c) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Regional Administrator in the permit to be reported within 24 hours. (See 40 CFR §122.44(g).)
 - (3) The Regional Administrator may waive the written report on a case-by-case basis for reports under Paragraph D.1.e. if the oral report has been received within 24 hours.

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- f. Compliance Schedules. Reports of compliance or noncompliance with, any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- g. Other noncompliance. The permittee shall report all instances of noncompliance not reported under Paragraphs D.1.d., D.1.e., and D.1.f. of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in Paragraph D.1.e. of this section.
- h. Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Administrator, it shall promptly submit such facts or information.

2. Signatory Requirement

- a. All applications, reports, or information submitted to the Regional Administrator shall be signed and certified. (See 40 CFR §122.22)
- b. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 2 years per violation, or by both.

3. Availability of Reports.

Except for data determined to be confidential under Paragraph A.8. above, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the State water pollution control agency and the Regional Administrator. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statements on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA.

PART II. E. DEFINITIONS AND ABBREVIATIONS

1. Definitions for Individual NPDES Permits including Storm Water Requirements

Administrator means the Administrator of the United States Environmental Protection Agency, or an authorized representative.

Applicable standards and limitations means all, State, interstate, and Federal standards and limitations to which a “discharge”, a “sewage sludge use or disposal practice”, or a related activity is subject to, including “effluent limitations”, water quality standards, standards of performance, toxic effluent standards or prohibitions, “best management practices”, pretreatment standards, and “standards for sewage sludge use and disposal” under Sections 301, 302, 303, 304, 306, 307, 308, 403, and 405 of the CWA.

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Application means the EPA standard national forms for applying for a permit, including any additions, revisions, or modifications to the forms; or forms approved by EPA for use in “approved States”, including any approved modifications or revisions.

Average means the arithmetic mean of values taken at the frequency required for each parameter over the specified period. For total and/or fecal coliforms and Escherichia coli, the average shall be the geometric mean.

Average monthly discharge limitation means the highest allowable average of “daily discharges” over a calendar month calculated as the sum of all “daily discharges” measured during a calendar month divided by the number of “daily discharges” measured during that month.

Average weekly discharge limitation means the highest allowable average of “daily discharges” measured during the calendar week divided by the number of “daily discharges” measured during the week.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of “waters of the United States.” BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Best Professional Judgment (BPJ) means a case-by-case determination of Best Practicable Treatment (BPT), Best Available Treatment (BAT), or other appropriate technology-based standard based on an evaluation of the available technology to achieve a particular pollutant reduction and other factors set forth in 40 CFR §125.3 (d).

Coal Pile Runoff means the rainfall runoff from or through any coal storage pile.

Composite Sample means a sample consisting of a minimum of eight grab samples of equal volume collected at equal intervals during a 24-hour period (or lesser period as specified in the section on Monitoring and Reporting) and combined proportional to flow, or a sample consisting of the same number of grab samples, or greater, collected proportionally to flow over that same time period.

Construction Activities - The following definitions apply to construction activities:

- (a) Commencement of Construction is the initial disturbance of soils associated with clearing, grading, or excavating activities or other construction activities.
- (b) Dedicated portable asphalt plant is a portable asphalt plant located on or contiguous to a construction site and that provides asphalt only to the construction site that the plant is located on or adjacent to. The term dedicated portable asphalt plant does not include facilities that are subject to the asphalt emulsion effluent limitation guideline at 40 CFR Part 443.
- (c) Dedicated portable concrete plant is a portable concrete plant located on or contiguous to a construction site and that provides concrete only to the construction site that the plant is located on or adjacent to.

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- (d) Final Stabilization means that all soil disturbing activities at the site have been complete, and that a uniform perennial vegetative cover with a density of 70% of the cover for unpaved areas and areas not covered by permanent structures has been established or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.
- (e) Runoff coefficient means the fraction of total rainfall that will appear at the conveyance as runoff.

Contiguous zone means the entire zone established by the United States under Article 24 of the Convention on the Territorial Sea and the Contiguous Zone.

Continuous discharge means a “discharge” which occurs without interruption throughout the operating hours of the facility except for infrequent shutdowns for maintenance, process changes, or similar activities.

CWA means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended by Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483, and Pub. L. 97-117; 33 USC §§1251 et seq.

Daily Discharge means the discharge of a pollutant measured during the calendar day or any other 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the “daily discharge” is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the “daily discharge” is calculated as the average measurement of the pollutant over the day.

Director normally means the person authorized to sign NPDES permits by EPA or the State or an authorized representative. Conversely, it also could mean the Regional Administrator or the State Director as the context requires.

Discharge Monitoring Report Form (DMR) means the EPA standard national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by permittees. DMRs must be used by “approved States” as well as by EPA. EPA will supply DMRs to any approved State upon request. The EPA national forms may be modified to substitute the State Agency name, address, logo, and other similar information, as appropriate, in place of EPA’s.

Discharge of a pollutant means:

- (a) Any addition of any “pollutant” or combination of pollutants to “waters of the United States” from any “point source”, or
- (b) Any addition of any pollutant or combination of pollutants to the waters of the “contiguous zone” or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation (See “Point Source” definition).

This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead

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to a treatment works; and discharges through pipes, sewers, or other conveyances leading into privately owned treatment works.

This term does not include an addition of pollutants by any “indirect discharger.”

Effluent limitation means any restriction imposed by the Regional Administrator on quantities, discharge rates, and concentrations of “pollutants” which are “discharged” from “point sources” into “waters of the United States”, the waters of the “contiguous zone”, or the ocean.

Effluent limitation guidelines means a regulation published by the Administrator under Section 304(b) of CWA to adopt or revise “effluent limitations”.

EPA means the United States “Environmental Protection Agency”.

Flow-weighted composite sample means a composite sample consisting of a mixture of aliquots where the volume of each aliquot is proportional to the flow rate of the discharge.

Grab Sample – An individual sample collected in a period of less than 15 minutes.

Hazardous Substance means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the CWA.

Indirect Discharger means a non-domestic discharger introducing pollutants to a publicly owned treatment works.

Interference means a discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

- (a) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
- (b) Therefore is a cause of a violation of any requirement of the POTW’s NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act (CWA), the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resources Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of the SDWA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection Research and Sanctuaries Act.

Landfill means an area of land or an excavation in which wastes are placed for permanent disposal, and which is not a land application unit, surface impoundment, injection well, or waste pile.

Land application unit means an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for treatment or disposal.

Large and Medium municipal separate storm sewer system means all municipal separate storm sewers that are either: (i) located in an incorporated place (city) with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census (these cities are listed in Appendices F and 40 CFR Part 122); or (ii) located in the counties with unincorporated urbanized

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populations of 100,000 or more, except municipal separate storm sewers that are located in the incorporated places, townships, or towns within such counties (these counties are listed in Appendices H and I of 40 CFR 122); or (iii) owned or operated by a municipality other than those described in Paragraph (i) or (ii) and that are designated by the Regional Administrator as part of the large or medium municipal separate storm sewer system.

Maximum daily discharge limitation means the highest allowable “daily discharge” concentration that occurs only during a normal day (24-hour duration).

Maximum daily discharge limitation (as defined for the Steam Electric Power Plants only) when applied to Total Residual Chlorine (TRC) or Total Residual Oxidant (TRO) is defined as “maximum concentration” or “Instantaneous Maximum Concentration” during the two hours of a chlorination cycle (or fraction thereof) prescribed in the Steam Electric Guidelines, 40 CFR Part 423. These three synonymous terms all mean “a value that shall not be exceeded” during the two-hour chlorination cycle. This interpretation differs from the specified NPDES Permit requirement, 40 CFR § 122.2, where the two terms of “Maximum Daily Discharge” and “Average Daily Discharge” concentrations are specifically limited to the daily (24-hour duration) values.

Municipality means a city, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribe organization, or a designated and approved management agency under Section 208 of the CWA.

National Pollutant Discharge Elimination System means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318, and 405 of the CWA. The term includes an “approved program”.

New Discharger means any building, structure, facility, or installation:

- (a) From which there is or may be a “discharge of pollutants”;
- (b) That did not commence the “discharge of pollutants” at a particular “site” prior to August 13, 1979;
- (c) Which is not a “new source”; and
- (d) Which has never received a finally effective NPDES permit for discharges at that “site”.

This definition includes an “indirect discharger” which commences discharging into “waters of the United States” after August 13, 1979. It also includes any existing mobile point source (other than an offshore or coastal oil and gas exploratory drilling rig or a coastal oil and gas exploratory drilling rig or a coastal oil and gas developmental drilling rig) such as a seafood processing rig, seafood processing vessel, or aggregate plant, that begins discharging at a “site” for which it does not have a permit; and any offshore rig or coastal mobile oil and gas exploratory drilling rig or coastal mobile oil and gas developmental drilling rig that commences the discharge of pollutants after August 13, 1979, at a “site” under EPA’s permitting jurisdiction for which it is not covered by an individual or general permit and which is located in an area determined by the Regional Administrator in the issuance of a final permit to be in an area of biological concern. In determining whether an area is an area of biological concern, the Regional Administrator shall consider the factors specified in 40 CFR §§125.122 (a) (1) through (10).

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An offshore or coastal mobile exploratory drilling rig or coastal mobile developmental drilling rig will be considered a “new discharger” only for the duration of its discharge in an area of biological concern.

New source means any building, structure, facility, or installation from which there is or may be a “discharge of pollutants”, the construction of which commenced:

- (a) After promulgation of standards of performance under Section 306 of CWA which are applicable to such source, or
- (b) After proposal of standards of performance in accordance with Section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal.

NPDES means “National Pollutant Discharge Elimination System”.

Owner or operator means the owner or operator of any “facility or activity” subject to regulation under the NPDES programs.

Pass through means a Discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW’s NPDES permit (including an increase in the magnitude or duration of a violation).

Permit means an authorization, license, or equivalent control document issued by EPA or an “approved” State.

Person means an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof.

Point Source means any discernible, confined, and discrete conveyance, including but not limited to any pipe ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff (see 40 CFR §122.2).

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. §§2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does not mean:

- (a) Sewage from vessels; or
- (b) Water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well, if the well is used either to facilitate production or for disposal purposes is approved by the authority of the State in which the well is located, and if the State determines that the injection or disposal will not result in the degradation of ground or surface water resources.

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Primary industry category means any industry category listed in the NRDC settlement agreement (Natural Resources Defense Council et al. v. Train, 8 E.R.C. 2120 (D.D.C. 1976), modified 12 E.R.C. 1833 (D. D.C. 1979)); also listed in Appendix A of 40 CFR Part 122.

Privately owned treatment works means any device or system which is (a) used to treat wastes from any facility whose operation is not the operator of the treatment works or (b) not a "POTW".

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Publicly Owned Treatment Works (POTW) means any facility or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a "State" or "municipality".

This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

Regional Administrator means the Regional Administrator, EPA, Region I, Boston, Massachusetts.

Secondary Industry Category means any industry which is not a "primary industry category".

Section 313 water priority chemical means a chemical or chemical category which:

- (1) is listed at 40 CFR §372.65 pursuant to Section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) (also known as Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986);
- (2) is present at or above threshold levels at a facility subject to EPCRA Section 313 reporting requirements; and
- (3) satisfies at least one of the following criteria:
 - (i) are listed in Appendix D of 40 CFR Part 122 on either Table II (organic priority pollutants), Table III (certain metals, cyanides, and phenols), or Table V (certain toxic pollutants and hazardous substances);
 - (ii) are listed as a hazardous substance pursuant to Section 311(b)(2)(A) of the CWA at 40 CFR §116.4; or
 - (iii) are pollutants for which EPA has published acute or chronic water quality criteria.

Septage means the liquid and solid material pumped from a septic tank, cesspool, or similar domestic sewage treatment system, or a holding tank when the system is cleaned or maintained.

Sewage Sludge means any solid, semisolid, or liquid residue removed during the treatment of municipal wastewater or domestic sewage. Sewage sludge includes, but is not limited to, solids removed during primary, secondary, or advanced wastewater treatment, scum, septage, portable toilet pumpings, Type III Marine Sanitation Device pumpings (33 CFR Part 159), and sewage sludge products. Sewage sludge does not include grit or screenings, or ash generated during the incineration of sewage sludge.

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Sewage sludge use or disposal practice means the collection, storage, treatment, transportation, processing, monitoring, use, or disposal of sewage sludge.

Significant materials includes, but is not limited to: raw materials, fuels, materials such as solvents, detergents, and plastic pellets, raw materials used in food processing or production, hazardous substance designated under section 101(14) of CERCLA, any chemical the facility is required to report pursuant to EPCRA Section 313, fertilizers, pesticides, and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges.

Significant spills includes, but is not limited to, releases of oil or hazardous substances in excess of reportable quantities under Section 311 of the CWA (see 40 CFR §110.10 and §117.21) or Section 102 of CERCLA (see 40 CFR § 302.4).

Sludge-only facility means any “treatment works treating domestic sewage” whose methods of sewage sludge use or disposal are subject to regulations promulgated pursuant to Section 405(d) of the CWA, and is required to obtain a permit under 40 CFR §122.1(b)(3).

State means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, the Trust Territory of the Pacific Islands.

Storm Water means storm water runoff, snow melt runoff, and surface runoff and drainage.

Storm water discharge associated with industrial activity means the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant. (See 40 CFR §122.26 (b)(14) for specifics of this definition.

Time-weighted composite means a composite sample consisting of a mixture of equal volume aliquots collected at a constant time interval.

Toxic pollutants means any pollutant listed as toxic under Section 307 (a)(1) or, in the case of “sludge use or disposal practices” any pollutant identified in regulations implementing Section 405(d) of the CWA.

Treatment works treating domestic sewage means a POTW or any other sewage sludge or wastewater treatment devices or systems, regardless of ownership (including federal facilities), used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated for the disposal of sewage sludge. This definition does not include septic tanks or similar devices.

For purposes of this definition, “domestic sewage” includes waste and wastewater from humans or household operations that are discharged to or otherwise enter a treatment works. In States where there is no approved State sludge management program under Section 405(f) of the CWA, the Regional Administrator may designate any person subject to the standards for sewage sludge use and disposal in 40 CFR Part 503 as a “treatment works treating domestic sewage”, where he or she finds that there is a potential for adverse effects on public health and the environment from poor sludge quality or poor sludge handling, use or disposal practices, or where he or she finds that such designation is necessary to ensure that such person is in compliance with 40 CFR Part 503.

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Waste Pile means any non-containerized accumulation of solid, non-flowing waste that is used for treatment or storage.

Waters of the United States means:

- (a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of tide;
- (b) All interstate waters, including interstate “wetlands”;
- (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, “wetlands”, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
 - (1) Which are or could be used by interstate or foreign travelers for recreational or other purpose;
 - (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - (3) Which are used or could be used for industrial purposes by industries in interstate commerce;
- (d) All impoundments of waters otherwise defined as waters of the United States under this definition;
- (e) Tributaries of waters identified in Paragraphs (a) through (d) of this definition;
- (f) The territorial sea; and
- (g) “Wetlands” adjacent to waters (other than waters that are themselves wetlands) identified in Paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds as defined in 40 CFR §423.11(m) which also meet the criteria of this definition) are not waters of the United States.

Wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Whole Effluent Toxicity (WET) means the aggregate toxic effect of an effluent measured directly by a toxicity test. (See Abbreviations Section, following, for additional information.)

2. Definitions for NPDES Permit Sludge Use and Disposal Requirements.

Active sewage sludge unit is a sewage sludge unit that has not closed.

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Aerobic Digestion is the biochemical decomposition of organic matter in sewage sludge into carbon dioxide and water by microorganisms in the presence of air.

Agricultural Land is land on which a food crop, a feed crop, or a fiber crop is grown. This includes range land and land used as pasture.

Agronomic rate is the whole sludge application rate (dry weight basis) designed:

- (1) To provide the amount of nitrogen needed by the food crop, feed crop, fiber crop, cover crop, or vegetation grown on the land; and
- (2) To minimize the amount of nitrogen in the sewage sludge that passes below the root zone of the crop or vegetation grown on the land to the ground water.

Air pollution control device is one or more processes used to treat the exit gas from a sewage sludge incinerator stack.

Anaerobic digestion is the biochemical decomposition of organic matter in sewage sludge into methane gas and carbon dioxide by microorganisms in the absence of air.

Annual pollutant loading rate is the maximum amount of a pollutant that can be applied to a unit area of land during a 365 day period.

Annual whole sludge application rate is the maximum amount of sewage sludge (dry weight basis) that can be applied to a unit area of land during a 365 day period.

Apply sewage sludge or sewage sludge applied to the land means land application of sewage sludge.

Aquifer is a geologic formation, group of geologic formations, or a portion of a geologic formation capable of yielding ground water to wells or springs.

Auxiliary fuel is fuel used to augment the fuel value of sewage sludge. This includes, but is not limited to, natural gas, fuel oil, coal, gas generated during anaerobic digestion of sewage sludge, and municipal solid waste (not to exceed 30 percent of the dry weight of the sewage sludge and auxiliary fuel together). Hazardous wastes are not auxiliary fuel.

Base flood is a flood that has a one percent chance of occurring in any given year (i.e. a flood with a magnitude equaled once in 100 years).

Bulk sewage sludge is sewage sludge that is not sold or given away in a bag or other container for application to the land.

Contaminate an aquifer means to introduce a substance that causes the maximum contaminant level for nitrate in 40 CFR §141.11 to be exceeded in ground water or that causes the existing concentration of nitrate in the ground water to increase when the existing concentration of nitrate in the ground water exceeds the maximum contaminant level for nitrate in 40 CFR §141.11.

Class I sludge management facility is any publicly owned treatment works (POTW), as defined in 40 CFR §501.2, required to have an approved pretreatment program under 40 CFR §403.8 (a) (including any POTW located in a state that has elected to assume local program responsibilities pursuant to 40 CFR §403.10 (e) and any treatment works treating domestic sewage, as defined in 40 CFR § 122.2,

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classified as a Class I sludge management facility by the EPA Regional Administrator, or, in the case of approved state programs, the Regional Administrator in conjunction with the State Director, because of the potential for sewage sludge use or disposal practice to affect public health and the environment adversely.

Control efficiency is the mass of a pollutant in the sewage sludge fed to an incinerator minus the mass of that pollutant in the exit gas from the incinerator stack divided by the mass of the pollutant in the sewage sludge fed to the incinerator.

Cover is soil or other material used to cover sewage sludge placed on an active sewage sludge unit.

Cover crop is a small grain crop, such as oats, wheat, or barley, not grown for harvest.

Cumulative pollutant loading rate is the maximum amount of inorganic pollutant that can be applied to an area of land.

Density of microorganisms is the number of microorganisms per unit mass of total solids (dry weight) in the sewage sludge.

Dispersion factor is the ratio of the increase in the ground level ambient air concentration for a pollutant at or beyond the property line of the site where the sewage sludge incinerator is located to the mass emission rate for the pollutant from the incinerator stack.

Displacement is the relative movement of any two sides of a fault measured in any direction.

Domestic septage is either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from a grease trap at a restaurant.

Domestic sewage is waste and wastewater from humans or household operations that is discharged to or otherwise enters a treatment works.

Dry weight basis means calculated on the basis of having been dried at 105 degrees Celsius (°C) until reaching a constant mass (i.e. essentially 100 percent solids content).

Fault is a fracture or zone of fractures in any materials along which strata on one side are displaced with respect to the strata on the other side.

Feed crops are crops produced primarily for consumption by animals.

Fiber crops are crops such as flax and cotton.

Final cover is the last layer of soil or other material placed on a sewage sludge unit at closure.

Fluidized bed incinerator is an enclosed device in which organic matter and inorganic matter in sewage sludge are combusted in a bed of particles suspended in the combustion chamber gas.

Food crops are crops consumed by humans. These include, but are not limited to, fruits, vegetables, and tobacco.

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Forest is a tract of land thick with trees and underbrush.

Ground water is water below the land surface in the saturated zone.

Holocene time is the most recent epoch of the Quaternary period, extending from the end of the Pleistocene epoch to the present.

Hourly average is the arithmetic mean of all the measurements taken during an hour. At least two measurements must be taken during the hour.

Incineration is the combustion of organic matter and inorganic matter in sewage sludge by high temperatures in an enclosed device.

Industrial wastewater is wastewater generated in a commercial or industrial process.

Land application is the spraying or spreading of sewage sludge onto the land surface; the injection of sewage sludge below the land surface; or the incorporation of sewage sludge into the soil so that the sewage sludge can either condition the soil or fertilize crops or vegetation grown in the soil.

Land with a high potential for public exposure is land that the public uses frequently. This includes, but is not limited to, a public contact site and reclamation site located in a populated area (e.g., a construction site located in a city).

Land with low potential for public exposure is land that the public uses infrequently. This includes, but is not limited to, agricultural land, forest and a reclamation site located in an unpopulated area (e.g., a strip mine located in a rural area).

Leachate collection system is a system or device installed immediately above a liner that is designed, constructed, maintained, and operated to collect and remove leachate from a sewage sludge unit.

Liner is soil or synthetic material that has a hydraulic conductivity of 1×10^{-7} centimeters per second or less.

Lower explosive limit for methane gas is the lowest percentage of methane gas in air, by volume, that propagates a flame at 25 degrees Celsius and atmospheric pressure.

Monthly average (Incineration) is the arithmetic mean of the hourly averages for the hours a sewage sludge incinerator operates during the month.

Monthly average (Land Application) is the arithmetic mean of all measurements taken during the month.

Municipality means a city, town, borough, county, parish, district, association, or other public body (including an intermunicipal agency of two or more of the foregoing entities) created by or under State law; an Indian tribe or an authorized Indian tribal organization having jurisdiction over sewage sludge management; or a designated and approved management agency under section 208 of the CWA, as amended. The definition includes a special district created under state law, such as a water district, sewer district, sanitary district, utility district, drainage district, or similar entity, or an integrated waste management facility as defined in section 201 (e) of the CWA, as amended, that has as one of its principal responsibilities the treatment, transport, use or disposal of sewage sludge.

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Other container is either an open or closed receptacle. This includes, but is not limited to, a bucket, a box, a carton, and a vehicle or trailer with a load capacity of one metric ton or less.

Pasture is land on which animals feed directly on feed crops such as legumes, grasses, grain stubble, or stover.

Pathogenic organisms are disease-causing organisms. These include, but are not limited to, certain bacteria, protozoa, viruses, and viable helminth ova.

Permitting authority is either EPA or a State with an EPA-approved sludge management program.

Person is an individual, association, partnership, corporation, municipality, State or Federal Agency, or an agent or employee thereof.

Person who prepares sewage sludge is either the person who generates sewage sludge during the treatment of domestic sewage in a treatment works or the person who derives a material from sewage sludge.

pH means the logarithm of the reciprocal of the hydrogen ion concentration; a measure of the acidity or alkalinity of a liquid or solid material.

Place sewage sludge or sewage sludge placed means disposal of sewage sludge on a surface disposal site.

Pollutant (as defined in sludge disposal requirements) is an organic substance, an inorganic substance, a combination of organic and inorganic substances, or pathogenic organism that, after discharge and upon exposure, ingestion, inhalation, or assimilation into an organism either directly from the environment or indirectly by ingestion through the food chain, could on the basis on information available to the Administrator of EPA, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunction in reproduction) or physical deformations in either organisms or offspring of the organisms.

Pollutant limit (for sludge disposal requirements) is a numerical value that describes the amount of a pollutant allowed per unit amount of sewage sludge (e.g., milligrams per kilogram of total solids); the amount of pollutant that can be applied to a unit of land (e.g., kilograms per hectare); or the volume of the material that can be applied to the land (e.g., gallons per acre).

Public contact site is a land with a high potential for contact by the public. This includes, but is not limited to, public parks, ball fields, cemeteries, plant nurseries, turf farms, and golf courses.

Qualified ground water scientist is an individual with a baccalaureate or post-graduate degree in the natural sciences or engineering who has sufficient training and experience in ground water hydrology and related fields, as may be demonstrated by State registration, professional certification, or completion of accredited university programs, to make sound professional judgments regarding ground water monitoring, pollutant fate and transport, and corrective action.

Range land is open land with indigenous vegetation.

Reclamation site is drastically disturbed land that is reclaimed using sewage sludge. This includes, but is not limited to, strip mines and construction sites.

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Risk specific concentration is the allowable increase in the average daily ground level ambient air concentration for a pollutant from the incineration of sewage sludge at or beyond the property line of a site where the sewage sludge incinerator is located.

Runoff is rainwater, leachate, or other liquid that drains overland on any part of a land surface and runs off the land surface.

Seismic impact zone is an area that has 10 percent or greater probability that the horizontal ground level acceleration to the rock in the area exceeds 0.10 gravity once in 250 years.

Sewage sludge is a solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to: domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in treatment works.

Sewage sludge feed rate is either the average daily amount of sewage sludge fired in all sewage sludge incinerators within the property line of the site where the sewage sludge incinerators are located for the number of days in a 365 day period that each sewage sludge incinerator operates, or the average daily design capacity for all sewage sludge incinerators within the property line of the site where the sewage sludge incinerators are located.

Sewage sludge incinerator is an enclosed device in which only sewage sludge and auxiliary fuel are fired.

Sewage sludge unit is land on which only sewage sludge is placed for final disposal. This does not include land on which sewage sludge is either stored or treated. Land does not include waters of the United States, as defined in 40 CFR §122.2.

Sewage sludge unit boundary is the outermost perimeter of an active sewage sludge unit.

Specific oxygen uptake rate (SOUR) is the mass of oxygen consumed per unit time per unit mass of total solids (dry weight basis) in sewage sludge.

Stack height is the difference between the elevation of the top of a sewage sludge incinerator stack and the elevation of the ground at the base of the stack when the difference is equal to or less than 65 meters. When the difference is greater than 65 meters, stack height is the creditable stack height determined in accordance with 40 CFR §51.100 (ii).

State is one of the United States of America, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Trust Territory of the Pacific Islands, the Commonwealth of the Northern Mariana Islands, and an Indian tribe eligible for treatment as a State pursuant to regulations promulgated under the authority of section 518(e) of the CWA.

Store or storage of sewage sludge is the placement of sewage sludge on land on which the sewage sludge remains for two years or less. This does not include the placement of sewage sludge on land for treatment.

Surface disposal site is an area of land that contains one or more active sewage sludge units.

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Total hydrocarbons means the organic compounds in the exit gas from a sewage sludge incinerator stack measured using a flame ionization detection instrument referenced to propane.

Total solids are the materials in sewage sludge that remain as residue when the sewage sludge is dried at 103 to 105 degrees Celsius.

Treat or treatment of sewage sludge is the preparation of sewage sludge for final use or disposal. This includes, but is not limited to, thickening, stabilization, and dewatering of sewage sludge. This does not include storage of sewage sludge.

Treatment works is either a federally owned, publicly owned, or privately owned device or system used to treat (including recycle and reclaim) either domestic sewage or a combination of domestic sewage and industrial waste of a liquid nature.

Unstable area is land subject to natural or human-induced forces that may damage the structural components of an active sewage sludge unit. This includes, but is not limited to, land on which the soils are subject to mass movement.

Unstabilized solids are organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Vector attraction is the characteristic of sewage sludge that attracts rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents.

Volatile solids is the amount of the total solids in sewage sludge lost when the sewage sludge is combusted at 550 degrees Celsius in the presence of excess air.

Wet electrostatic precipitator is an air pollution control device that uses both electrical forces and water to remove pollutants in the exit gas from a sewage sludge incinerator stack.

Wet scrubber is an air pollution control device that uses water to remove pollutants in the exit gas from a sewage sludge incinerator stack.

3. Commonly Used Abbreviations

BOD	Five-day biochemical oxygen demand unless otherwise specified
CBOD	Carbonaceous BOD
CFS	Cubic feet per second
COD	Chemical oxygen demand
Chlorine	
Cl ₂	Total residual chlorine
TRC	Total residual chlorine which is a combination of free available chlorine (FAC, see below) and combined chlorine (chloramines, etc.)

NPDES PART II STANDARD CONDITIONS
(January, 2007)

TRO	Total residual chlorine in marine waters where halogen compounds are present
FAC	Free available chlorine (aqueous molecular chlorine, hypochlorous acid, and hypochlorite ion)
Coliform	
Coliform, Fecal	Total fecal coliform bacteria
Coliform, Total	Total coliform bacteria
Cont. (Continuous)	Continuous recording of the parameter being monitored, i.e. flow, temperature, pH, etc.
Cu. M/day or M ³ /day	Cubic meters per day
DO	Dissolved oxygen
kg/day	Kilograms per day
lbs/day	Pounds per day
mg/l	Milligram(s) per liter
ml/l	Milliliters per liter
MGD	Million gallons per day
Nitrogen	
Total N	Total nitrogen
NH ₃ -N	Ammonia nitrogen as nitrogen
NO ₃ -N	Nitrate as nitrogen
NO ₂ -N	Nitrite as nitrogen
NO ₃ -NO ₂	Combined nitrate and nitrite nitrogen as nitrogen
TKN	Total Kjeldahl nitrogen as nitrogen
Oil & Grease	Freon extractable material
PCB	Polychlorinated biphenyl
pH	A measure of the hydrogen ion concentration. A measure of the acidity or alkalinity of a liquid or material
Surfactant	Surface-active agent

NPDES PART II STANDARD CONDITIONS
(January, 2007)

Temp. °C	Temperature in degrees Centigrade
Temp. °F	Temperature in degrees Fahrenheit
TOC	Total organic carbon
Total P	Total phosphorus
TSS or NFR	Total suspended solids or total nonfilterable residue
Turb. or Turbidity	Turbidity measured by the Nephelometric Method (NTU)
ug/l	Microgram(s) per liter
WET	“Whole effluent toxicity” is the total effect of an effluent measured directly with a toxicity test.
C-NOEC	“Chronic (Long-term Exposure Test) – No Observed Effect Concentration”. The highest tested concentration of an effluent or a toxicant at which no adverse effects are observed on the aquatic test organisms at a specified time of observation.
A-NOEC	“Acute (Short-term Exposure Test) – No Observed Effect Concentration” (see C-NOEC definition).
LC ₅₀	LC ₅₀ is the concentration of a sample that causes mortality of 50% of the test population at a specific time of observation. The LC ₅₀ = 100% is defined as a sample of undiluted effluent.
ZID	Zone of Initial Dilution means the region of initial mixing surrounding or adjacent to the end of the outfall pipe or diffuser ports.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1 - NEW ENGLAND
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

FACT SHEET

DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES.

NPDES PERMIT NO.: **MA0040231**

PUBLIC NOTICE START AND END DATES: April 8, 2015-June 6, 2015

NAME AND ADDRESS OF APPLICANT:

**Pittsfield Economic Development Authority
81 Kellogg Street
Pittsfield, Massachusetts 01201**

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

**William Stanley Business Park of the Berkshires
Generally bounded by East Street,
Silver Lake Boulevard, Kellogg Street, and Tyler Street
Pittsfield, Massachusetts 01201**

RECEIVING WATERS: **Silver Lake**

CLASSIFICATION: **B, Warm Water Fishery** (Housatonic River Watershed)

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Figure 1	Location Map
Figure 2	PEDA Site Map
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I. Proposed Action, Type of Facility and Discharge Location

The above-named applicant has applied to the U.S. Environmental Protection Agency for reissuance of its National Pollutant Discharge Elimination System (NPDES) permit to discharge to Silver Lake. The current permit expired on February 7, 1997 and is still in effect¹. The facility is a former industrial site currently being redeveloped into a business park. The facility's location is shown on **Figure 1, Location Map** of this fact sheet.

(a) Site Description

William Stanley Business Park of the Berkshires, Pittsfield, Massachusetts is located on 52 acres of the former General Electric Company (GE) plant area. Until 1990, GE manufactured and serviced large electrical transformer equipment and military hardware on this site. These operations resulted in the release of transformer fluids, containing polychlorinated biphenyls (PCBs), to the ground and into the stormwater collection system. At that time, the site was mostly impervious, with several large buildings and parking lots.

In 1999, GE, PEDA, and the City of Pittsfield signed an agreement, known as the DEDA², to facilitate the redevelopment of a portion of the GE property at the GE-Pittsfield site. GE transferred approximately 26 acres to PEDA in 2005, an area shown in blue on **Figure 2, PEDA Site Map**. An additional 26 acres was transferred in 2011-2012; these areas are shown in green on **Figure 2**. Also, **Figure 2** shows 91 acres off-site (i.e. not controlled by PEDA) that drain to Outfall 001 in purple.

South Side Park

The southern 26 acres, which PEDA calls the "South Side Park", have changed considerably since the 2005 transfer. GE demolished all buildings on the site and either buried or removed the demolition waste before transferring parcels. PEDA redeveloped the southern 26 acres of the property, including but not limited to the following changes:

- (1) Construction of a new stormwater conveyance system relying on grassy swales, replacing a system of pavement and pipes;
- (2) Creation of grassy building lots after the removal of pavement and building foundations;
- (3) Construction of a water quality basin to treat Outfall 001, replacing Oil Water Separator (OWS) 31W which previously treated flow to Outfall 001,
- (4) Consolidation of former Outfalls 001, 004, and 01A into a new Outfall 001 located approximately 200 feet to the north of the old outfall.

A flow schematic, showing the new Outfall 001 treatment system, is shown on **Figure 3, PEDA Grading and Drainage Plan**.

The Consent Decree³ for the former GE factory area requires PEDA to maintain pavement in four areas of the site where building demolition debris was buried. This includes a large parking lot and small paved area on the southeastern portion of the site, a paved area where the former power plant was located on the southwestern area of the site, and a small paved area on the northeastern area of the site. Currently, there are two structures on the site, a solar panel array and a financial services building.

¹ See I.(c) below for permitting history

² The agreement is known as the Definitive Economic Development Agreement (DEDA).

³ See Section I.(b) on page 6 of this document for more information on the Consent Decree.

North Side Park

The northern half of the site (“North Side Park”) was transferred to PEDA in 2011-2012. This portion of the site consists mostly of pavement and building foundations. North Side Park contains an area previously known as the “Teens Complex” area of the GE Factory Site. Based on preliminary source tracking, subsurface drainage infrastructure in this area appears to be the primary source of PCBs discharging from Outfall 001. PEDA plans to redevelop this parcel in a similar fashion to the south half of the site; however, no significant redevelopment activities have occurred yet. PEDA recently reported that it has obtained a commitment for a portion of the funding needed to design and implement the plan for mitigating PCB contributions from the Teens Complex.

On June 25, 2014 heavy stormwater flows resulted in a breach of the spillway between the north forebay and the water quality basin. This was the fourth such breach in the north forebay, and according to PEDA’s consultant, was caused by sediment buildup. The sediment reduced the forebay’s storage capacity, and in the process created a channel for the stormwater to enter the spillway at high velocities. MassDEP was notified of the breach on July 7, 2014, and on August 28, 2014 sent PEDA a letter requiring that the spillway be repaired within 14 days as part of compliance with the MassDEP’s Grant of Environmental Restriction and Easement. In September 2014, PEDA submitted preliminary plans to the MassDEP and EPA to reinforce the spillway by using larger rocks and grout to anchor the rocks in place. In addition, PEDA conducted temporary repairs of the spillway on September 18, 2014. This consisted of placing riprap in the area of the spillway that eroded.

In a January 13, 2015 letter from the City of Pittsfield and PEDA to Region 1 EPA, the City and PEDA explore several possible future actions related to this permitted discharge and ways to address reducing pollutant discharges. This letter is Appendix F to this Factsheet. Representatives of PEDA and EPA subsequently discussed these possible actions in general terms.

One possibility identified in the letter is “disconnecting the portion of PEDA property known as the Teens Complex.” The disconnection itself is not precluded by the current permit or draft permit. This may be a viable way to reduce the discharge of pollutants through Outfall 001. Such an action is identified in Part I.C.8.a.iv. of the draft permit as a possible site-specific BMP.

Another possible action described in the January 13, 2015 letter is “transferring responsibilities for NPDES compliance to the City of Pittsfield” through a change in ownership and operational control for the discharge. It is noted that PEDA currently owns the property, and Pittsfield’s municipal stormwater discharges are currently authorized under Region 1 EPA’s 2003 Small MS4 General Permit. EPA is currently working to update and reissue this municipal stormwater general permit for small MA MS4s, such as Pittsfield. It is scheduled for reissuance in 2015. Note that the current MS4 permit covering Pittsfield does not authorize the discharge of stormwater associated with an industrial activity as defined in 40 CFR § 122.26 (b)(14)(i)-(ix) and (xi) or the discharge of contaminated groundwater. If these discharges are not authorized under a separate NPDES permit they are considered an “illicit discharge” for the purposes of MS4 permitting. As described in this fact sheet and in this draft individual (non MS4) permit for PEDA, PEDA is authorized to discharge stormwater and contaminated groundwater infiltration.

EPA is interested in receiving comments during the public notice period regarding the possible further actions identified in the January 13, 2015 letter to EPA from the City of Pittsfield and PEDA, in particular if there is a proposed method and scope of transferring responsibility for meeting CWA requirement for Outfall 001.

(b) Consent Decree

On October 27, 2000, the U.S. District Court for Massachusetts approved a Consent Decree negotiated by the United States (on behalf of EPA and other federal agencies), Massachusetts, Connecticut and the General Electric Company (“GE”). Using the authority of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601 et seq. (“CERCLA”) and the Resource Conservation and Recovery Act (“RCRA”), the Decree requires GE to perform or pay for over 25 response actions to address unacceptable threats posed by PCBs and other hazardous substances that originated from GE’s operations at its former Pittsfield facility.

The Clean Water Act’s (“CWA”) NPDES program serves a different statutory purpose from CERCLA and RCRA cleanup programs. CWA Section 301 generally prohibits the discharge of pollutants from point sources to waters of the United States, and Section 402 establishes the NPDES program, under which permits may be issued to allow the discharge of pollutants that otherwise would be prohibited. In contrast, CERCLA and the RCRA corrective action program govern the cleanup of hazardous substances and hazardous waste that have already been released or for which there is a threat of release. Nothing in this Decree limits EPA’s authority to issue an NPDES permit consistent with the CWA or to impose limitations on discharges authorized by the permit.

(c) NPDES Permit History

When PEDA acquired Outfall 001, EPA assigned permit No. MA0040231 to PEDA. Because of PEDA’s timely submission of a NPDES Reissuance Application and pursuant to 40 CFR 122.6, the requirements for Outfall 001 (established in the 1988-issued Permit MA0003891) were administratively continued for Outfall 001. It should be noted that, although the current permit requirements for PEDA derive from MA0003891, PEDA submits DMRs and other reports under the permit No. MA0040231.

Therefore, the provisions of the 1988-issued MA0003891 that apply to Outfall 001 remain in effect for the entire PEDA site (see **Figure 4, Flowchart of PEDA and GE Factory Site NPDES Permits**). This permit was issued on September 30, 1988 and became effective on February 7, 1992 upon resolution of an evidentiary hearing request made by GE. The permit was modified on May 21, 1992, and expired on February 7, 1997. This permit is included as Appendix D of this fact sheet.

The 1988 permit authorizes the discharge of non-contact cooling water and stormwater runoff from Outfall 001 to Silver Lake. As discussed previously, manufacturing operations on this site ceased in 1990, and Outfall 001 no longer discharges non-contact cooling water. Outfall 001 discharges stormwater and PCB contaminated groundwater infiltration, all of which commingle in the water quality basin prior to discharge through Outfall 001 to Silver Lake. Stormwater discharged through PEDA’s Outfall 001 is collected from the 52-acre PEDA site and from approximately 91 acres served by the City of Pittsfield Municipal Separate Storm Sewer System (MS4).

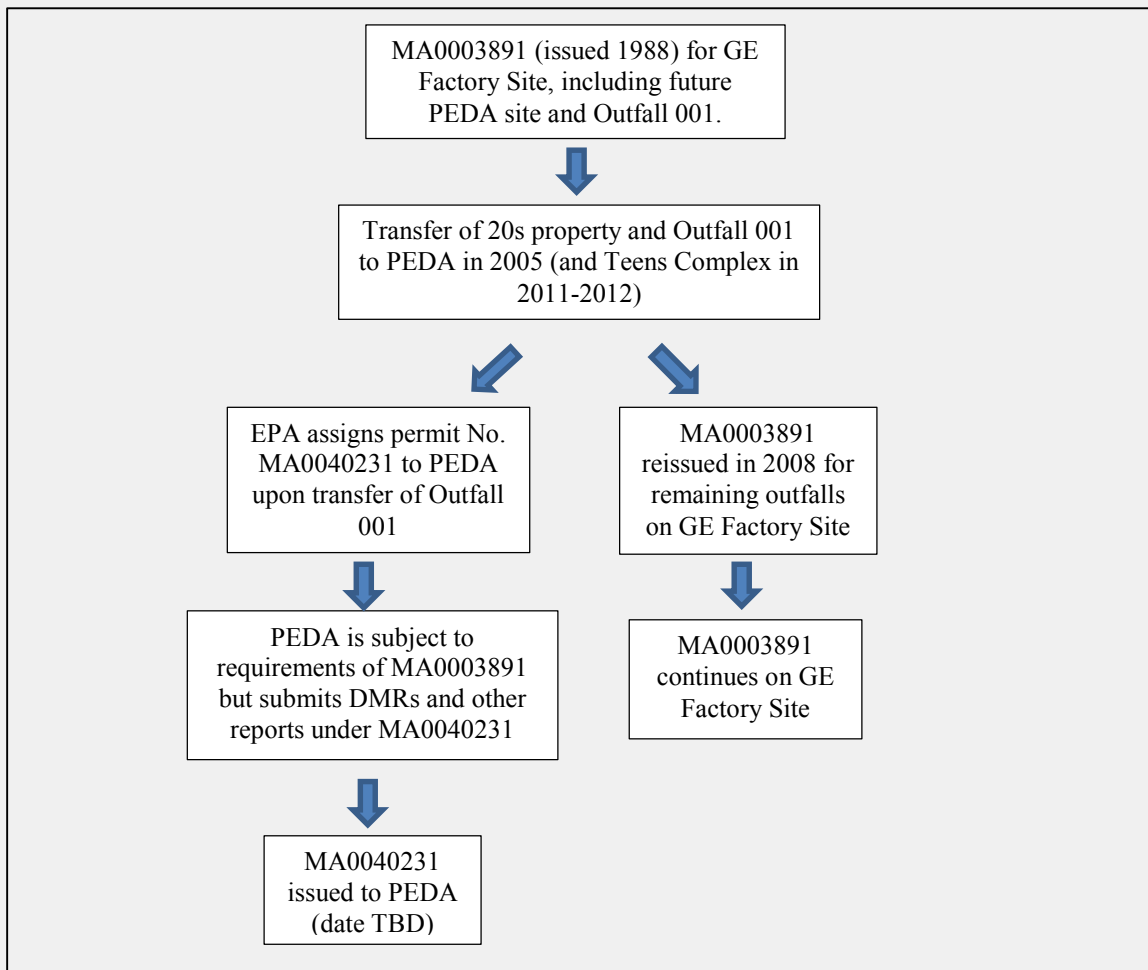
The City of Pittsfield storm sewer system is regulated by the 2003 MS4 General Permit. As such, the City of Pittsfield is responsible for its stormwater contributed to PEDA’s stormwater collection system, including the six minimum control provisions contained in the 2003 MS4 General Permit. In accordance with Part I.C. of the 2003 MS4 Permit, Pittsfield is also responsible for developing and implementing a Stormwater Management Plan (SWMP) that addresses any discharge to impaired waters such as Silver Lake and the Housatonic River.

(d) Current Permit Requirements

The **current permit** (MA0003891, issued in 1988), originally issued to GE and still in effect for the PEDAs Site, contains effluent limitations on flow, total suspended solids (TSS), pH, and Oil and Grease, and requires monitoring of PCBs.

The current permit also established a whole effluent toxicity C-NOEC (Chronic No Effect Concentration, expressed as percent effluent) limit of at least 35% for a monthly composite sample of discharges from Outfalls 001, 004, 005, 007, 009, and 011. Similarly, a monitoring requirement for copper, zinc, lead, cadmium, chromium, aluminum, nickel, phosphorus, silver and cyanide was based on a composite sample consisting of effluent from the same six discharges. When EPA reissued MA0003891 to GE in 2008, Outfall 001 was no longer on GE property, and therefore the chronic toxicity limit and monitoring requirements for a composite of GE outfalls no longer applied to Outfall 001. Furthermore, the requirement was removed for GE outfalls because the previous tests showed no reasonable potential for the discharge to cause toxicity in the receiving waters.

Figure 4. Flowchart of PEDAs and GE Factory Site NPDES Permits



II. Description of Treatment System and Discharge

Outfall 001 is located on the southwest side of the PEDAs property at the outlet of the water quality basin. It discharges stormwater, groundwater infiltration, and potable water (used for fire protection testing) from approximately 148 acres of drainage area to Silver Lake. A substantial portion of the drainage area and associated stormwater collection system is outside of PEDAs property. As shown on **Figure 2, PEDAs Site Map**, there is a 4-acre CSX rail corridor that bisects the site and drains to Outfall 001. Ninety-one acres of the drainage area is served by the City of Pittsfield MS4, and is also depicted on **Figure 2**. A schematic diagram of this drainage system is shown on **Figure 3, PEDAs Grading and Drainage Plan**.

The PEDAs property previously included two other outfalls, 01A and 004. Under the previous configuration, Outfall 001 conveyed flow treated by OWS (oil/water separator) 31W. When wet weather flows exceeded the capacity of OWS 31W, which was 2,500 gallons per minute, excess flow would be conveyed directly to Silver Lake via Outfall 01A. Outfall 004 discharged untreated stormwater from 4.4 acres on the PEDAs site to Silver Lake.

On December 11, 2009, PEDAs abandoned and plugged Outfalls 01A and 004 and relocated Outfall 001 approximately 200 feet to the south of its previous location. All flow that previously discharged through Outfalls 01A and 004 now discharges through the relocated Outfall 001. As part of the outfall relocation/abandonment, PEDAs disconnected OWS 31W and rerouted flow through a new stormwater system consisting of two sediment forebays and a water quality basin (See **Figure 3, PEDAs Grading and Drainage Plan**).

The treatment system consists of a wet retention basin (the water quality basin) with pretreatment by two sediment forebays. The south forebay collects drainage from the south portion of the site through a grassy swale that runs along the southern edge of the site. The north forebay receives piped flow from North Side Park and the 91 acres off-site. The two forebays provide treatment by allowing sediment to settle out of the water, which flows through berms constructed of large rocks into the water quality basin.

The water quality basin is designed to be a permanently wet basin. The bottom contour is below the groundwater table, therefore; the basin collects groundwater seepage through the sidewalls. Groundwater infiltration also enters the water quality basin through infiltration of stormwater pipes elsewhere in the drainage area. Hence, the water quality basin commingles dry and wet weather flows, and also mixes stormwater with contaminated groundwater (meaning groundwater that contains PCBs) infiltration prior to discharge through Outfall 001. This presents one source of pollution through Outfall 001 to Silver Lake due to the historical groundwater contamination on the site as well as due to pollutants in stormwater.

III. Receiving Water Description

Silver Lake is classified under the Clean Water Act (CWA) as a Class B warm water fishery by MassDEP in the Massachusetts Surface Water Quality Standards (MA SWQS), 314 CMR 4.00. Although Silver Lake is not currently listed in the Massachusetts 2012 Integrated List of Waters (<http://www.mass.gov/eea/docs/dep/water/resources/07v5/12list2.pdf>), it is a Class B Water pursuant to the following clause in the SWQS:

“Unless otherwise designated in 314 CMR 4.06 or unless otherwise listed in the tables to 314 CMR 4.00, other waters are Class B, and presumed High Quality Waters for inland waters...” (314 CMR 4.06(4))

Silver Lake drains to the East Branch of the Housatonic River (Segment ID MA21-02). This segment of the East

Branch of the Housatonic River is listed as impaired for fecal coliform and PCBs in fish tissue.

At 314 CMR 4.05(3)(b), the Massachusetts Surface Water Quality Standards describe Class B waters as having the following designated uses: (1) a habitat for fish, other aquatic life, and wildlife, including for their reproduction, migration, growth and other critical functions, (2) primary and secondary contact recreation, (3) a source of public water supply (i.e., where designated and with appropriate treatment), (4) suitable for irrigation and other agricultural uses and for compatible industrial cooling and process uses, and (5) shall have consistently good aesthetic value. Primary contact recreation is defined as any recreation or other water use in which there is prolonged and intimate contact with the water with a significant risk of ingestion of water. These include, but are not limited to, wading, swimming, kayaking, diving, surfing and water skiing.

Secondary contact recreation is defined as recreation or other water use in which contact with the water is either incidental or accidental. These include but are not limited to fishing, human consumption of fish, boating, and limited contact incident to shoreline activities. The MASWQS also describe Class B warm water fisheries as having an instream temperature that shall not exceed 83°F (28.3°C), and the receiving waters shall be free from oil, grease and petrochemicals that produce a visible film on the surface of the water, impart an oily taste to the water or an oily or other undesirable taste to the edible portions of aquatic life, coat the banks or bottom of the water course, or are deleterious or become toxic to aquatic life.

The U.S. Fish and Wildlife Service (FWS) and the Massachusetts Division of Fisheries and Wildlife (MADFW), in coordination with EPA and the Massachusetts Department of Environmental Protection (MassDEP) released a report⁴ in 2005 detailing PCB levels in tissue from fish collected from Silver Lake in Pittsfield in October 2004. Fish tissue concentrations of total PCBs ranged from 24 to 168 parts per million (ppm), 2,000 times the EPA risk-based cancer threshold⁵ for fish consumption of 0.012 ppm⁶ total PCBs in fish tissue.

As required by the Consent Decree, GE substantially completed remediation of Silver Lake for PCB contamination in October 2013, with some restoration activities continuing through December 2013. Remediation consisted of removal of 12,500 cubic yards of near-shore sediment and bank soil and capping of the bottom of the lake with a layer of clean silty sand. Monitoring data showed a sharp drop in water column PCB concentrations in Silver Lake since the cap was placed (see Appendix B for pre-remediation surface water data and Appendix C for post-remediation surface water data). The post-capping median PCB surface water sampling indicates that PCB concentrations in Silver Lake range from non-detect to 0.097 µg/L, with the median concentration of 0.044 µg/L. Both values are above water quality criteria for PCBs, but lower than pre-capping concentrations.

IV. Limitations and Conditions

The effluent limitations and all other requirements described herein may be found in the draft permit. The basis for the limits and the other permit requirements is described below.

⁴ Silver Lake Fish Tissue Analytical Results Report <http://www.epa.gov/region1/ge/thesite/silverlake/reports/232770.pdf>

⁵ Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories (2000). EPA 823-B-00-008.

⁶ This amount of PCBs in fish tissue would raise the risk of cancer by 1 in 100,000 of a 70 kilogram person who eats 8 ounces of fish four times per month.

V. Permit Basis: Statutory and Regulatory Authority

(a) General Requirements

The Clean Water Act (CWA) prohibits the discharge of pollutants to waters of the United States without a National Pollutant Discharge Elimination System (NPDES) permit unless such a discharge is otherwise authorized by the CWA. The NPDES permit is the mechanism used to implement technology and water quality-based effluent limitations and other requirements including monitoring and reporting. This draft NPDES permit was developed in accordance with various statutory and regulatory requirements established pursuant to the CWA and any applicable State regulations. The regulations governing the EPA NPDES permit program are generally found at 40 CFR Parts 122, 124, 125, and 136.

When developing permit limits, EPA must consider the most recent technology-based treatment and water quality-based requirements as well as all limitations and requirements in the existing permit. Subpart A of 40 CFR Part 125 establishes criteria and standards for the imposition of technology-based treatment requirements in permits under Section 301(b) of the CWA, including the application of EPA-promulgated effluent limitations and case-by-case determinations of effluent limitations under Section 402(a)(1) of the CWA.

(b) Technology-Based Requirements

Technology-based treatment requirements represent the minimum level of control that must be imposed under Sections 301(b) and 402 of the CWA (see 40 CFR §125 Subpart A) to meet best practicable control technology currently available (BPT) for conventional pollutants and some metals, best conventional control technology (BCT) for conventional pollutants, and best available technology economically achievable (BAT) for toxic and non-conventional pollutants.

In general, the statutory deadline for non-POTW⁷, technology-based, effluent limitations must be complied with as expeditiously as practicable but in no case later than three years after the date such limitations are established and in no case later than March 31, 1978 (see 40 CFR 235.3(a)(2)). Compliance schedules and deadlines not in accordance with the statutory provisions of the CWA cannot be authorized by a NPDES permit.

Historically, the previous site owner, GE, made transformers and military hardware on the site. The industrial operations and apparatuses have been removed, although residuals of the operations remain. Because industrial operations have ceased, Outfall 001 is not subject to any effluent limitation guidelines (ELGs) associated with manufacturing. When in operation, the GE factory on the property was categorized under 40 CFR Part 414 Subpart D, Thermoplastic Resins.

In the absence of published technology-based effluent guidelines, the permit writer is authorized under Section 402(a)(1)(B) of the CWA to establish effluent limitations on a case-by-case basis using best professional judgment (BPJ). The technology-based requirements have been established in the draft permit to control the discharge of stormwater pollutants such as TSS, Oil and Grease, bacteria, nutrients, and metals from Outfall 001. A number of these technology-based requirements are expressed as Best Management Practices (BMPs) to address particular aspects of the PEDA site, including requirements to do the following:

- develop, implement, and maintain a Stormwater Pollution Prevention Plan (SWPPP);
- remove debris from manholes and catch basins; and

⁷ A POTW is a publicly owned treatment works that collects and treats domestic sewage. PEDA is not a POTW.

- clean and maintain sediment forebays.

The required BMPs are described further in Section VI(k).

(c) Water Quality-Based Requirements

Section 301(b)(1)(C) of the CWA requires that effluent limitations based on water quality considerations be established for point source discharges when such limitations are necessary to meet state or federal water quality standards that are applicable to the designated receiving water. This is necessary when technology-based limitations would interfere with the attainment or maintenance of water quality in the receiving water. Under Section 301(b)(1)(C) of the CWA and EPA regulations, NPDES permits must contain effluent limits more stringent than technology-based limits where more stringent limits are necessary to maintain or achieve state or federal water quality standards.

Water quality standards consist of three parts: (1) beneficial designated uses for a waterbody or a segment of a waterbody; (2) numeric and/or narrative water quality criteria sufficient to protect the assigned designated use(s); and (3) anti-degradation requirements to ensure that once a use is attained it will not be degraded. The Massachusetts Surface Water Quality Standards, found at 314 CMR 4.00, include these elements. The state will limit or prohibit discharges of pollutants to surface waters to assure that surface water quality standards of the receiving waters are protected and maintained or attained. These standards also include requirements for the regulation and control of toxic constituents and require that EPA criteria, established pursuant to Section 304(a) of the CWA, shall be used unless a site-specific criterion is established.

The draft permit must limit any pollutant or pollutant parameter (conventional, non-conventional, and toxic) that is or may be discharged at a level that causes or has the “reasonable potential” to cause or contribute to an excursion above any water quality standard (40 CFR §122.44(d)). An excursion occurs if the projected or actual in-stream concentration exceeds an applicable water quality criterion. In determining reasonable potential, EPA considers: (1) existing controls on point and non-point sources of pollution; (2) pollutant concentration and variability in the effluent and receiving water as determined from the permit’s re-issuance application, monthly discharge monitoring reports (DMRs), and State and Federal Water Quality Reports; (3) sensitivity of the indicator species used in toxicity testing; (4) known water quality impacts of processes on waste waters; and (5) where appropriate, dilution of the effluent in the receiving water.

(d) Antibacksliding

A permit may not be renewed, reissued or modified with less stringent limitations or conditions than those contained in the previous permit unless in compliance with the antibacksliding requirements of the CWA [see Sections 402(o) and 303(d)(4) of the CWA and 40 CFR §122.44(l)(1) and 2)]. EPA’s antibacksliding provisions prohibit the relaxation of permit limits, standards, and conditions except under certain circumstances. Effluent limits based on BPJ, water quality, and state certification requirements must also meet the antibacksliding provisions found at Section 402(o) and 303(d)(4) of the CWA.

The current PEDA site bears little resemblance to the 1988 GE site. When EPA issued the current permit in 1988, GE owned and operated Outfall 001, which drained the PEDA site along with Outfalls 01A and 004 (which have since been plugged). At that time, the site consisted of industrial buildings and paved areas, and an oil water separator treated the discharge. The site was close to 100% impervious area and still contained the subsurface infrastructure from past industrial activity on the site, which ceased in 1990. All former industrial buildings on the site have been demolished. In addition, South Side Park has new stormwater infrastructure,

including two sediment forebays and a water quality basin. While North Side Park has not changed appreciably since demolition of the buildings, South Side Park has much less impervious area than it did before its transfer to PEDDA. The site characteristics will likely change further as PEDDA proceeds in redeveloping the site.

Based on these site alterations, EPA has determined that the PEDDA site and Outfall 001 fall under an exception to the antibacksliding provision listed in 40 CFR §122.44(l)(2)(i):

“material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation.” [40 CFR §122.44(l)(2)(i)(A)]

(e) Antidegradation

Federal regulations found at 40 CFR Section 131.12 require states to develop and adopt a statewide antidegradation policy which maintains and protects existing instream water uses and the level of water quality necessary to protect the existing uses, and maintains the quality of waters which exceed levels necessary to support propagation of fish, shellfish, and wildlife and to support recreation in and on the water. The Massachusetts Antidegradation Regulations are found at Title 314 CMR 4.04. There are no new or increased discharges being proposed with this permit reissuance. Therefore, EPA believes that the draft permit meets these antidegradation requirements. MassDEP is being requested to certify that the permit meets state WQS including state antidegradation requirements and is expected to do so.

VI. Explanation of Permit’s Effluent Limitations

(a) Flow

The current permit, originally issued to GE, contains an average monthly flow limit of 1.1 million gallons per day (MGD) and a maximum daily limit of 2.55 MGD for Outfall 001. These limits were established when Outfall 001 accepted non-contact cooling water and stormwater flows of up to 2,500 gallons per minute. Any flow that exceeded 2,500 gallons per minute was diverted to Outfall 01A, which did not have flow limits. Since that time, the discharge of non-contact cooling water has ceased, and Outfalls 01A and 004 have been eliminated. Stormwater and infiltrated groundwater that previously discharged through Outfalls 01A and 004 now discharge through Outfall 001.

From January 2010 through December 2013, there were five violations of the maximum daily flow limit, and the maximum daily flow ranged from 0.16 MGD to 7.33 MGD. Average monthly flow ranged from 0.01 MGD to 0.71 MGD from January 2010 through December 2013 (see Appendix A).

Conditions on the site have changed enough to render the previous flow limits obsolete. The draft permit instead requires reporting of the average monthly and maximum daily flow on the DMR. The permit also requires the permittee to report precipitation and flow for each day of the month on an attachment to the DMR (see Attachment A to the draft permit). It is anticipated that comparing the flow and pollutant concentration at Outfall 001 with precipitation will be helpful in assessing the performance of the stormwater treatment system in a variety of storm conditions. The flow shall be monitored continuously.

(b) Total Suspended Solids (TSS)

The current permit contains an average monthly limit of 138 lbs/day (pounds per day) of total suspended solids (TSS) and a maximum daily limit of 628 lbs/day. Effluent data submitted by PEDDA is shown on Appendix A

and indicates that there were four violations of the maximum daily TSS loading limit and 15 violations of the average monthly TSS loading limit. These violations are the result of high sediment loads to the sediment forebays and the water quality basin during rain events.

Although PEDAs are not required to report effluent TSS concentrations on the monthly DMR, laboratory reports indicate that the effluent TSS discharge from Outfall 001 has ranged from 2.06 mg/L to 377 mg/L from May 2011 through May 2014 (number of samples (n) = 30).

The treatment technology applied to TSS at Outfall 001 consists of two sediment forebays leading to a wet basin. In MassDEP's Stormwater Policy Handbook (1997), a sediment forebay paired with a wet basin is capable of achieving a design removal rate of 80% of the annual TSS load entering the treatment system. For stormwater associated with industrial activity for Industrial Sector AD (non-classified facilities), EPA's multi-sector general permit requires that control of total suspended solids through best management practices, including a stormwater pollution prevention plan, achieve a benchmark value, above which monitoring adjustments to BMPs are triggered. This benchmark value, 100 mg/L, is therefore expected to be the maximum long term average TSS value of water entering the sediment forebays. An 80% removal efficiency through application of additional treatment in the infiltration basin results in the reduction of TSS to a long-term average of 20 mg/L according to the following:

$$(\text{TSS concentration entering the BMP}) \times (\text{removal rate \%}) = \text{Long Term Average}$$

Permit Limit Determination

The Technical Support Document for Water Quality-Based Toxics (TSD)⁸ describes a statistical approach to setting permit limits for a given effluent parameter to ensure the desired level of treatment. Section 5.2.2 (page 95) of the TSD introduces this method.

Effluent data from any treatment system may be described using standard descriptive statistics, such as the mean concentration of the pollutant or pollutant parameter (i.e., the long-term average [LTA] and the coefficient of variation [CV]). The CV is a standard statistical measure of the relative variations of a distribution or set of data, defined as the ratio of the standard deviation to the mean. Using a statistical model, such as the lognormal, an entire distribution of values can be projected from limited data, and limits can be set at a specified probability of occurrence.

The TSD then describes the recommended method for deriving technology-based effluent limitations.

In the development of technology-based effluent limits guidelines, the operating records of various wastewater treatment facilities for a particular category of discharger are examined. Based on the effluent data for the treatment facilities, a composite mean or LTA value for the parameter is determined. This LTA value, with relevant estimates of variability, is then used to derive effluent limit guidelines, which lead directly to permit limits.

Based on the MassDEP data cited above, EPA considers 20 mg/L to be the LTA for this particular treatment system. Using this LTA and effluent variability data, EPA calculated an average monthly limit (AML) and a maximum daily limit (MDL) for TSS. The coefficient of variation (CV) for PEDAs effluent TSS data is 0.4 (see

⁸ EPA Office of Water, Technical Support Document for Water Quality-Based Toxics Reduction, 1991. (EPA/505/2-90-001)

Appendix E).

Using an LTA of 20 mg/L, EPA applied the procedure described in Box 5-2 (page 100) of the TSD. Because this is a technology-based limit with a predetermined LTA, the limit calculation starts with Step 4.

$$MDL = LTA \times e^{(z\sigma - 0.5\sigma^2)}$$

Where $\sigma^2 = \ln(CV^2 + 1)$

Where $z = 2.326$ for 99% probability

To simplify this calculation, the TSD includes a table listing the values of $e^{(z\sigma - 0.5\sigma^2)}$ based on the CV in Table 5-2 (page 103). For CV = 0.4 and a 99% probability basis (meaning that there is a 1% chance of the effluent exceeding the MDL) the value of $e^{(z\sigma - 0.5\sigma^2)}$ is 2.27.

Therefore,

$$MDL = 20 \text{ mg/L} \times 2.27 = 45.4 \text{ mg/L} \sim 45 \text{ mg/L}$$

The procedure is similar for the Average Monthly Limit (AML), except that number of samples per month is a factor. The amount of data points changes the statistical properties and variation of the monthly average, and the TSD adjusts the AML to account for this. The draft permit proposes weekly sampling; therefore, $n = 4$.

$$AML = LTA \times e^{(z\sigma_n - 0.5\sigma_n^2)}$$

Where $\sigma_n^2 = \ln(CV^2/n + 1)$

Where $z = 1.645$ for 95% probability

Where $n =$ proposed number of samples per month = 4

To simplify this calculation, the TSD includes a table listing the values of $e^{(z\sigma_n - 0.5\sigma_n^2)}$ based on the CV and the proposed sampling frequency in Table 5-2 (page 103). For CV = 0.4, four samples per month, and a 95% probability basis (meaning that there is a 5% monthly chance of the effluent exceeding the AML) the value of $e^{(z\sigma_n - 0.5\sigma_n^2)}$ is 1.36.

Therefore,

$$AML = 20 \text{ mg/L} \times 1.36 = 27.2 \text{ mg/L} \sim 27 \text{ mg/L}$$

Hence, the average monthly TSS limit is 27 mg/L. The proposed monitoring frequency in the draft permit will be once per week. Because of the changes in site conditions, no mass-based TSS limit is included in the draft permit.

In addition to the numeric TSS effluent limits, the draft permit requires a SWPPP to limit the discharge of TSS and other stormwater related pollutants as described in Section IV(k). The SWPPP requires a number of BMPs including catch basin and sediment forebay cleaning to reduce discharges of sediment from Outfall 001.

(c) pH

The current permit requires a pH effluent limitation range of 6.0 to 9.0 SU, which is a technology-based limit for several industrial sectors. From January 2010 through December 2013, the pH of the discharge through Outfall 001 ranged from 6.5 – 9.14 SU, with three violations of the maximum pH limit, in July 2010, July 2011, and

May 2012. It is not clear what is causing the periodic maximum pH exceedances. Concrete fill and demolition debris, which is present below ground surface on the PEDAsite, may contribute to the high pH in groundwater⁹.

The draft permit requires an effluent pH limitation range of 6.5 to 8.3 standard units (SU), which is required for state certification and is consistent with water quality standards. The proposed monitoring frequency is once per week.

(d) Oil and Grease

The current permit limits Oil and Grease to maximum daily values of 15 mg/L (milligrams per liter) and 319 lbs/day. The mass-based limit is the amount of Oil and Grease discharged at the maximum daily flow limit of 2.55 MGD at 15 mg/L. There were four Oil and Grease exceedances from January 2010 through December 2013, one of the loading limit and three of the concentration limit.

The 15 mg/L Oil and Grease effluent limit in the current permit represents the same threshold often used by EPA in the context of industrial and stormwater permitting. In the context of industrial permit limits, the Petroleum Refining Point Source Category standard (40 CFR § 419) does not require treatment of the wastewater if it does not exceed 15 mg/L of Oil & Grease. Second, in the context of stormwater, the Multi-Sector General Permit sets 15 mg/L of Oil and Grease as a benchmark.

The effluent limit of 15 mg/L is sufficient to meet the water quality standard established for Oil and Grease by Massachusetts Surface Water Quality Standards at 314 CMR § 4.05(3)(b)7. These standards state that Class B "...waters shall be free from oil, grease and petrochemicals that produce a visible film on the surface of the water, impart an oily taste to the water or an oily or other undesirable taste to the edible portions of aquatic life, coat the banks or bottom of the water course, or are deleterious or become toxic to aquatic life." An effluent concentration of 15 mg/L is recognized as the concentration at which many oils produce a visible sheen and/or cause undesirable taste in edible fish.

The draft permit contains concentrations limits rather than loading limits because of changes in site conditions, as previously described. The draft permit limits Oil and Grease to a maximum daily value of 15 mg/L. Due to the periodic exceedances of this parameter under the current permit, EPA has decided to increase the monitoring frequency for Oil and Grease to once per week.

(e) Escherichia coli

The current permit does not contain limits or monitoring requirements for *E. coli*. The permit application listed *E. coli* as "believed present" in the discharge based on the presence of animals in the drainage area. In addition to animal sources of *E. coli*, there is the potential for *E. coli* from domestic sewage in the discharge if there are illicit sewer connections to the stormwater system that drains to Outfall 001. As discussed in Section III, the segment of the Housatonic River to which Silver Lake drains is listed as impaired for fecal coliform. Since the listing of this segment of the Housatonic River as impaired for fecal coliform, Massachusetts has revised its Water Quality Standards for Class B waters (314 CMR § 4.05(3)(b)4.b.) and replaced fecal coliform with *E. coli* as the indicator of pathogenic bacteria. For this reason, coupled with insufficient monitoring data to determine if Outfall 001 contributes to the bacterial impairment, the draft permit includes a quarterly monitoring requirement

⁹ Shi, C. and Spence, R. 2005. High pH Groundwater— The Effect of The Dissolution of Hardened Cement Pastes. Water Encyclopedia. 5:362–365.

for *E. coli*.

In addition to monitoring, the draft permit requires a SWPPP to limit the discharge of *E. coli* and other stormwater-related pollutants, as described in Section IV(k).

(f) Total Phosphorus

Phosphorus and other nutrients promote the growth of nuisance algae and aquatic plants. When these plants and algae undergo decay, they generate strong odors, lower dissolved oxygen levels in receiving waters, and impair benthic habitat.

The Massachusetts Surface Water Quality Standards (314 CMR § 4.00) do not contain numerical criteria for total phosphorus. The narrative criteria for nutrients at 314 CMR § 4.05(5)(c) state:

“Unless naturally occurring, all surface waters shall be free from nutrients in concentrations that would cause or contribute to impairment of existing or designated uses and shall not exceed the site specific criteria developed in a TMDL [Total Maximum Daily Load] or as otherwise established by the Department pursuant to 314 CMR 4.00. Any existing point source discharge containing nutrients in concentrations that would cause or contribute to cultural eutrophication, including the excessive growth of aquatic plants or algae, in any surface water shall be provided with the most appropriate treatment as determined by the Department, including, where necessary, highest and best practical treatment (HBPT) for POTWs and BAT for non POTWs, to remove such nutrients to ensure protection of existing and designated uses. Human activities that result in the nonpoint source discharge of nutrients to any surface water may be required to be provided with cost effective and reasonable best management practices for nonpoint source control.”

An effluent sample from Outfall 001 taken for the permit application contained 0.210 mg/L of phosphorus. According to the permit application, phosphorus in the discharge is due to the use of fertilizers and the possible presence of geese and other animals in the drainage basin. PEDA has stated that it does not use fertilizers in the area around the water quality basin. It is possible, however, that fertilizers used in other portions of the drainage basin could contribute phosphorus to the discharge, or that the phosphorus is due to a variety of sources in the stormwater.

The draft permit includes a quarterly monitoring requirement for total phosphorus, which will help EPA determine if the discharge has reasonable potential to contribute to an exceedance of water quality standards and assist in future permit limit development. The development and implementation of a SWPPP, including BMP provisions such as catch basin and sediment forebay cleaning requirements, is required in the draft permit to limit the discharge of total phosphorus and other stormwater-related pollutants.

(g) Total Nitrogen

Excessive nitrogen in a water body can cause eutrophication, a condition in which aquatic plant and algal growth is excessive and can be toxic at elevated levels. Decomposition of plants and algae can reduce instream dissolved oxygen concentrations below levels necessary to support aquatic life.

Excessive nitrogen loadings are causing significant water quality problems in Long Island Sound, including low dissolved oxygen. In December 2000, the Connecticut Department of Environmental Protection (CT DEP) completed a TMDL for addressing nitrogen-driven eutrophication impacts in Long Island Sound. The TMDL

included a waste load allocation (WLA) for point sources and a load allocation (LA) for non-point sources.

The point source WLA for out-of-basin sources (Massachusetts, New Hampshire and Vermont wastewater facilities discharging to the Connecticut, Housatonic and Thames River watersheds) requires an aggregate 25 percent reduction from the baseline total nitrogen loading estimated in the TMDL.

<u>Basin</u>	<u>Baseline Loading¹⁰</u> (lbs/day)	<u>TMDL Target¹¹</u> (lbs/day)	<u>2004-2005 Loading¹²</u> (lbs/day)
Connecticut River	21,672	16,254	13,836
Housatonic River	3,286	2,464	2,151
Thames River	1,253	940	1,015
Totals	26,211	19,657	17,002

The permit application indicates that PEDDA collected one sample of the discharge for total nitrogen, with a result of 0.530 mg/L. The application states that the nitrogen source is fertilizer used on lawn areas of the site. PEDDA says it does not use fertilizer on the immediate area surrounding the water quality basin.

The draft permit requires reporting of total nitrogen once per quarter, and the draft permit proposes certain non-structural BMPs to minimize nitrogen discharges from Outfall 001 (see Section VI.(k) of this fact sheet). These BMPs are similar to ones proposed in the recently released draft General Permit for Small MS4s in Massachusetts, for MS4s located within the three watersheds. These practices include minimization of fertilizer application, use of slow release fertilizer, management of grass clippings and leaf litter, and regular street sweeping.

(h) Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs) are a group of chemical compounds formed by the addition of chlorine (Cl₂) to biphenyl (C₁₂H₁₀), which is a dual-ring structure comprised of two 6-carbon benzene rings linked by a single carbon-carbon bond. PCBs are manufactured as mixtures that include a number of different molecules that exhibit a wide range of physical properties, bioavailability and toxicity (generally referred to as PCB “aroclor”).

The human health and ecological risks associated with PCBs are a function of exposure and the toxicity of PCBs. PCBs are known to cause cancer in animals and are classified as a probable human carcinogen by national and international health-protective organizations, such as the EPA, the Agency for Toxic Substances and Disease Registry (ATSDR, an arm of the U.S. Public Health Service) and the World Health Organization. According to ATSDR¹³,

PCBs do not readily break down in the environment and thus may remain there for very long periods of time. PCBs can travel long distances in the air and be deposited in areas far away from where they were released. In water, a small amount of PCBs may remain dissolved, but most stick to organic particles and bottom sediments. PCBs also bind strongly to soil.

¹⁰ Estimated loading from TMDL (see Appendix 3 to CT DEP “Report on Nitrogen Loads to Long Island Sound”, April 1998).

¹¹ 25% reduction

¹² Estimated loading from 2004 – 2005 DMR data.

¹³ <http://www.atsdr.cdc.gov/tfacts17.pdf>

PCBs are taken up by small organisms and fish in water. They are also taken up by other animals that eat these aquatic animals as food. PCBs accumulate in fish and marine mammals, reaching levels that may be many thousands of times higher than in water.

Silver Lake and the Housatonic River are both Class B waters under the Massachusetts Water Quality Standards (314 CMR 4.00). For Class B waters, 314 CMR § 4.05(5)(e) establishes the following water quality criteria for toxic pollutants:

For pollutants not otherwise listed in 314 CMR 4.00, the National Recommended Water Quality Criteria: 2002, EPA 822R-02-047, November 2002 published by EPA pursuant to Section 304(a) of the Federal Water Pollution Control Act, are the allowable receiving water concentrations for the affected waters, unless the Department either establishes a site specific criterion or determines that naturally occurring background concentrations are higher.

EPA's National Recommended Water Quality Criteria, 2002, require a human health criterion of 0.000064 µg/L for fish consumption as well as a freshwater aquatic life criterion continuous concentration (CCC) for PCBs of 0.014 µg/L, measured as total PCBs.

The current permit requires reporting the maximum daily PCB load each month. It does not require reporting of effluent PCB concentrations; however, these data were collected for the purpose of calculating PCB loading. PCB concentrations in the discharge regularly exceed the CCC. From January 2010, shortly after the water quality basin went online, through December 2013, the range of PCB concentrations was 0.0247 µg/L to 0.885 µg/L. See Appendix A for more information.

Reasonable Potential Analysis

As discussed previously in Section V(c), EPA considers five factors in determining reasonable potential:

- (1) existing controls on point and non-point sources of pollution;
- (2) pollutant concentration and variability in the effluent and receiving water as determined from the permit's re-issuance application, monthly discharge monitoring reports (DMRs), and State and Federal Water Quality Reports;
- (3) sensitivity of the indicator species used in toxicity testing;
- (4) known water quality impacts of processes on waste waters; and
- (5) where appropriate, dilution of the effluent in the receiving water.

Each of these five factors is discussed below.

- (1) existing controls on point and non-point sources of pollution

The existing controls consist of two sediment forebays that overflow into a permanently wet basin (i.e. the water quality basin). The north forebay is undersized and not capable of handling heavy stormwater flows with high TSS concentrations. This has been illustrated by four breaches of the north forebay that have occurred during storm events. Also, the water quality basin intercepts groundwater that contains PCBs, meaning that the water quality basin itself may be a source of PCBs.

- (2) pollutant concentration and variability in the effluent and receiving water

Since the water quality basin has gone online, discharge concentrations of PCBs have been consistently higher than both the aquatic life criterion and the human health criterion. Using a method from the Technical Support Document for Water Quality-based Toxics Control (TSD), EPA calculated a projected upper bound for effluent PCB concentrations based on methods in the TSD, Section E-6. See Appendix E for the details of this statistical derivation. EPA determined that the projected 95th percentile effluent PCB concentration is 0.427 µg/L, which is over 30 times the aquatic life criterion of 0.014 µg/L.

The water column concentration of PCBs in Silver Lake has dropped since capping of the lake in 2013, but the median concentration, at 0.044 µg/L, is still above both the human health criteria of 0.000064 µg/L and the aquatic life criterion of 0.014 µg/L. Furthermore, the reach of the Housatonic River to which Silver Lake outlets has been listed as impaired for PCBs in fish tissue. Discharges of PCBs in excess of the water quality criterion contributes to this water quality impairment.

(3) sensitivity of the indicator species used in toxicity testing

This factor pertains only to whole effluent toxicity test limits, which are not included in the draft permit.

(4) known water quality impacts of processes on waste water

Because there are no longer any industrial processes on the site, this factor is inapplicable.

(5) where appropriate, dilution of the effluent in the receiving water

In this case, EPA is exercising its discretion pursuant to 40 CFR § 122.44(d)(1)(ii) to disregard dilution when determining reasonable potential or setting permit limits for PCBs because of their persistence and bioaccumulation in the environment.

After considering the above factors, EPA has concluded that there is reasonable potential for the discharge from Outfall 001 to cause or contribute to an exceedance of the human health (and aquatic life) water quality criteria for PCBs in Silver Lake and the Housatonic River.

PCB Effluent Limit Determination

EPA has established a water quality-based effluent limit at the human health water quality criterion to ensure the discharge does not cause or contribute to a water quality standard exceedance in Silver Lake or the Housatonic River. In setting the effluent limit, EPA also examined recently issued permits with PCB effluent limits. The 2010 Remediation General Permit (RGP) regulates discharges related to site remediation. The RGP imposes an effluent limitation for total PCBs based on the current human health criterion of 0.000064 µg/L. EPA also considered the example of the GE Pittsfield permit (MA0003891), which has a numeric PCB effluent limit of 0.014 µg/L at one outfall, and source reduction and good housekeeping BMPs as effluent limits at other outfalls. In the case of the PEDA draft permit, EPA is including the human health criterion as the numeric effluent limit for PCBs. EPA is required to set limits that lead to attainment of water quality standards for receiving waters, and Silver Lake will not be in attainment as long as the human health criterion for PCBs is exceeded.

Section 301 of the CWA and its implementing regulations obligate EPA to establish water quality based effluent limits for Outfall 001 that are as stringent as necessary to attain and maintain applicable water quality standards. In this case, EPA has determined there is a reasonable potential for the discharges of PCBs to contribute to such a water quality impairment, and EPA is required to establish a water quality-based effluent limit for the Outfall

001 to ensure the discharge does not cause or contribute to a water quality standard exceedance in Silver Lake or the Housatonic River.

The required BMPs, including the SWPPP, are not expected to reduce PCB levels to a degree necessary to ensure that these levels do not cause or contribute to a water quality standard violation. In the case of PEDAs discharge through Outfall 001, EPA is not relying on technology-based BMPs or water quality-based BMPs for several site-specific reasons, including the following:

1. The extent of the drainage area contributing to Outfall 001 is relatively large and the conditions are variable and uncertain despite recent initial work by PEDA to characterize PCB sources contributing to Outfall 001. PEDA has tentatively identified the Teens Complex as one major source of PCBs to Outfall 001.
2. A successful PCB source identification study has not been completed. Among the potential sources of PCBs contributing to the Outfall 001 discharge are:
 - Infiltration of contaminated groundwater into the stormwater collection systems on PEDA property, or in the Pittsfield MS4 within the Outfall 001 catchment;
 - Other illicit connections to this stormwater collection system;
 - Residual PCB contamination in soils, and other surfaces exposed to stormwater;
 - Residual PCB contamination in pipes, catch basins, and other collection system structures;
 - Infiltration of contaminated groundwater directly into the water quality basin; and
 - Sediment in the forebays and water quality basin being re-suspended or otherwise being the source of PCBs.
3. Where a specific source of PCB contamination has been or will be identified (e.g. sediment in a particular catch basin, leakage and infiltration in a particular stormwater collection pipe) the means to eliminate this source has not been identified, designed, accomplished, and confirmed.
4. In some cases, such as the control of the infiltration of contaminated groundwater directly to the water quality basin, a straightforward management practice to eliminate the source of PCB contamination is not readily apparent at this time.
5. Remediation efforts in Silver Lake have been substantially completed, and subsequent recontamination due to PCB discharges from Outfall 001 is of immediate concern.

Therefore, a numeric water quality-based effluent limit is included in the draft permit to ensure that the discharge that does not cause or contribute to a water quality standard violation. The draft permit proposes a numeric average monthly PCB limit of 0.000064 µg/L, with a reporting requirement for the maximum daily value. An average monthly limit is warranted in this case because of the predominant concern for the chronic effects of PCBs, such as those resulting from bioaccumulation in the environment, rather than the acute effects. This limit applies as the sum of all aroclors. The draft permit proposes a monitoring frequency of at least once per month. If PEDA samples once per month, it should report the same result as the monthly average and maximum daily.

Reporting Limit

The PCB effluent limit, 0.000064 µg/L, is several orders of magnitude below the detection capabilities of current analytical methods. Where effluent limits have been established in NPDES permits but compliance cannot be determined using currently approved analytical methods (e.g. if WQBELs are less than the analytical capability of the methods), EPA's TSD, page 111, recommends that "the compliance level be defined in the permit as the minimum level (ML)" and the permit defines the quantitative methodology required. The ML is not the minimum level of detection, but rather the lowest level at which the test equipment produces a recognizable signal and acceptable calibration point for an analyte, representative of the lowest concentration at which an

analyte can be measured with a known level of confidence. Further, EPA's Federal Advisory Committee on Detection and Quantitation recommends permits contain a condition that the Practical Quantitation Level (PQL)¹⁴ used for analysis be at or below the ML. Therefore, the draft permit requires that the quantitative methodology used for PCB analysis must achieve a Minimum Level (ML) of 0.022 µg/L or lower, using EPA Method 608.3 (Organochlorine Pesticides and PCBS).

When an analyte is not detected above the PQL, the Permittee must report using the data qualifier signifying less than the PQL for that analyte (i.e. <0.1 µg/L, if the PQL for an analyte is 0.1 µg/L). The PQL is the lowest concentration that can be reliably measured within specified limits of precision and accuracy for a specific laboratory analytical method during routine laboratory operating conditions.

EPA is aware that PEDA is unlikely to be able to comply with the PCB numeric water quality-based effluent limit by the effective date of the final permit. In this situation, EPA is willing to discuss the terms of a Consent Order containing a reasonable compliance schedule and/or receive comments on a reasonable compliance schedule to be included in the Final Permit.

Alternative BMP Approach

There is no provision in the draft permit precluding the permittee from achieving the numerical PCB effluent limit through the use of additional BMPs beyond those specified in the draft permit. EPA is interested in receiving comment on the approach of EPA and MassDEP to include a numerical water quality-based effluent limit as opposed to relying on BMPs. For example, if the degree of present uncertainty in the understanding of BMP effectiveness, identification, implementation and verification can be addressed, EPA might establish a water quality-based effluent limit based on BMPs. EPA would need to be convinced that relying on site specific BMPs would ensure compliance with water quality standards. EPA and MassDEP could consider a compliance schedule with iterative milestones for BMP implementation to occur as soon as possible to achieve a delayed effective date of the numerical effluent limit.

The following paragraphs describe the actions that might make such an approach viable. EPA invites comment on the following paragraphs. At the same time, EPA encourages a commitment from PEDA to perform the work described in the paragraphs below. This work may enable a determination to be made that a numerical water quality-based effluent limit can either be postponed with a compliance schedule within the term of the permit or is not necessary at all in this 5-year permit cycle to ensure that discharges from the permittee's Outfall 001 does not cause or contribute to an exceedance of water quality standards in Silver Lake or the Housatonic River.

Within one (1) year of the effective date of the permit, the permittee shall prepare and submit to EPA and MassDEP a PCB Loading and BMP Selection and Commitment Report (special study). The PCB Loading and BMP Selection and Commitment Report shall include all studies, sampling and analyses necessary to develop site-specific BMPs necessary to limit and/or prevent the introduction of PCBs into the Water Quality Basin and Silver Lake. These site-specific BMPs shall be measured to control, reduce, and/or eliminate PCB concentrations within the storm drain discharges, groundwater infiltration, and other PCB loadings to the Water Quality Basin and Silver Lake. The PCB Loading and BMP Selection and Commitment Report shall include the following.

¹⁴ML and PQL are both expressions of the laboratory detection level. The ML is the level at which a signal is quantified by the analytical instrument. MLs are developed by EPA, which uses them to specify the sensitivity of analytical methods. EPA's TSD, page 112, defines the PQL as "a specific (and sometimes arbitrary) multiple of the method detection level" and discourages its use in setting compliance levels. PQLs are typically used by laboratories in reporting lab results.

1. Provide a quantitative mass balance allocation of PCB loading among the potential sources of PCBs contributing to the Outfall 001 discharge based on field measurements. For this mass balance of PCB loadings, use measured PCB concentrations and measured or estimated monthly flows from various sources to calculate the monthly PCB load in mass per month from each source. Trace these sources up the watershed and provide a quantitative allocation of PCB loading for each source to represent a total PCB loading to Outfall 001 that is equal to the measured load in pounds per day discharged at Outfall 001. These sources include:

- The combined stormwater and infiltrated groundwater into the stormwater collection systems on PEDDA property draining to the north forebay from within the Outfall 001 catchment and from within contributing sub-catchments defined by key junction manholes of other sampling points;
- The combined stormwater and infiltrated groundwater into the stormwater collection systems on PEDDA property draining to the south forebay from within the Outfall 001 catchment;
- The combined stormwater and infiltrated groundwater into the stormwater collection systems from the Pittsfield MS4 within the Outfall 001 catchment;
- The discharge from the north forebay to the water quality basin;
- The discharge from south forebay to the water quality basin;
- Infiltration of contaminated groundwater directly into the water quality basin;
- Sediment in water quality basin being re-suspended or otherwise being the source of PCBs;
- Residual PCB contamination in soils, and other surfaces exposed to stormwater being added to stormwater;
- Residual PCB contamination in pipes, catch basins, and other collection system structures added to stormwater; and
- Illicit connections to this stormwater collection system.

2. For each source, or type of source, evaluate and identify specific BMPs for PCB load elimination or reduction, along with the documented effectiveness of that BMP in terms of PCB removal efficiency. For each BMP, provide a commitment to implement and maintain the BMP and the estimated resulting reduced PCB load. Provide a schedule for each BMP, including the date constructed or the date the BMP otherwise becomes effective, as well as the operation and maintenance (O/M) required to maintain the BMP effectiveness and a commitment to maintain and monitor the effectiveness of each O/M measure. Provide an analysis calculating the sum of the resulting PCB load reductions from each source and demonstrate that the resulting monthly average PCB concentration at Outfall 001 attains the permit's compliance level for PCBs at Outfall 001.

The Permittee shall begin implementation of the non-structural BMPs developed in the PCB Loading and BMP Selection and Commitment Report (special study) no later than one (1) year after the effective date of this Permit. The site-specific BMPs shall be prepared in accordance with good engineering practices.

Within two (2) years from the effective date of this Permit, the Permittee shall, at a minimum, construct and operate any structural site-specific BMPs to control, reduce, and/or eliminate the sources of PCBs.

Within four (4) years from the effective date of this Permit, the Permittee shall validate the effectiveness

of these BMPs through sampling and analysis and submit a report of this validation to EPA and MassDEP.

Each year, 60 days after the anniversary date of the permit, the Permittee shall submit to EPA and MassDEP a PCB BMP and Loading Annual Report. The PCB BMP and Loading Annual Report shall include from the previous year:

- all PCB analyses,
- an updated mass-balance of PCB loadings,
- any changes from or additions to the BPM information provided in the and BMP Selection and Commitment Report,
- the status of each PCB BMP, and
- the PCB reduction efficiency of each BMP

Again, EPA invites comment on such a BMP approach.

(i) Metals

As explained in Permit Attachments B and C, permittees must analyze the effluent and dilution water for several parameters. The draft permit requires PEDA to report the results of the metals and hardness analyses performed as part of the WET tests on the DMR. Effluent data submitted with the permit application indicate that the discharge may contain certain metals in excess of water quality criteria. Due to the age and small sample size of the data for these three metals, EPA cannot determine reasonable potential of metals in the effluent to cause or contribute to excursions of the WQC. Therefore, the draft permit requires quarterly sampling for these constituents to assist EPA in determining the need for metal effluent limits in the next permit reissuance.

Table 2. Effluent Data for Outfall 001 (from permit application)

Date	Lead	Copper	Zinc
2000 – Outfall 001 (dry weather)	30 µg/L	180 µg/L	160 µg/L
2002 – Outfall 01A (wet weather)	32 µg/L	27 µg/L	64 µg/L
Chronic Criterion*	2.5 µg/L	9.0 µg/L	120 µg/L
Acute Criterion*	65 µg/L	13 µg/L	120 µg/L

* at 100 mg/L hardness

(j) Whole Effluent Toxicity

EPA's Technical Support Document for Water Quality-Based Toxics Control, March 1991, EPA/505/2-90-001, recommends using an "integrated strategy" containing both pollutant- specific (chemical) approaches and whole effluent (biological) toxicity approaches to better detect toxics in effluent discharges. Pollutant-specific approaches, such as those in EPA's Gold Book (ambient water quality criteria) and state regulations, address individual chemicals, whereas whole effluent toxicity approaches evaluate interactions between pollutants, i.e., the "additivity", "antagonistic" and/or "synergistic" effects of pollutants. In addition, the presence of an unknown toxic pollutant can be discovered and addressed through this process.

Section 101(a)(3) of the CWA specifically prohibits the discharge of toxic pollutants in toxic amounts, as do the Massachusetts Water Quality Standards, which state, in part, that "all surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife." The NPDES regulations at

40 CFR §122.44(d)(1)(v) require whole effluent toxicity (WET) limits in a permit when a discharge has a reasonable potential to cause or contribute to an instream excursion above the State's narrative criterion for toxicity. This WET test is a proactive method of protecting the environment so as to properly carry out EPA's Congressional mandate to prevent the discharge of toxic substances into the Nation's waterways.

The previous permit, issued to GE in 1988, included a WET test limit that required the chronic toxicity endpoint C-NOEC (Chronic No Effect Concentration) to equal or exceed 35% for a monthly composite sample of discharges from Outfalls 001, 004, 005, 007, 009, and 011. Similarly, a monitoring requirement for copper, zinc, lead, cadmium, chromium, aluminum, nickel, phosphorus, silver and cyanide was based on a composite sample consisting of effluent from the same six discharges.

When EPA reissued MA0003891 in 2008, it removed the requirement to conduct toxicity testing because the previous tests did not show reasonable potential for the composite discharge to violate water quality standards. However, the same cannot be said of Outfall 001, especially given the changes that have occurred on the PEDAsite. Also, any toxicity present in the Outfall 001 discharge could have been diluted by the presence of other discharges in the composite sample.

Therefore, the draft permit contains requirements for quarterly acute and chronic toxicity tests using the species *Ceriodaphnia dubia* and *Pimiphales promelas*. The permittee must report the acute toxicity endpoint (LC50) concentration and the chronic toxicity endpoint C-NOEC (Chronic No Effect Concentration). The tests must be performed in accordance with the test procedures and protocols specified in Permit Attachments B and C. The tests will be conducted four times a year, once per calendar quarter.

(k) Stormwater Pollution Prevention Plan

According to 40 CFR 122.26(b)(14), stormwater discharge associated with an industrial activity, which requires an NPDES permit, includes "stormwater discharges from...areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water." General Electric had previously engaged in activities on this site that have resulted in the discharge of transformer fluid containing PCBs and other contaminated material to the ground, equipment, and into the stormwater collection system. The residuals containing PCBs and other pollutants in soils, on surfaces, and in stormwater collections systems are potentially exposed to stormwater. In addition, current activities on areas that drain to Outfall 001 result in the discharge of pollutants to waters of the United States either directly or indirectly through stormwater runoff.

To control the activities and operations which could contribute pollutants to waters of the United States, potentially violating the State's WQS, the draft permit requires the permittee to implement and maintain a SWPPP containing best management practices (BMPs) appropriate for this facility (See Sections 304(e) and 402(a)(1) of the CWA and 40 CFR §122.44(k)(2)). Although manufacturing of transformers and ordnance is no longer occurring at this site; remaining infrastructure, residual contamination, and operations related to the on-site groundwater remediation still are contributing pollutants to the receiving water in stormwater runoff.

The goal of the SWPPP is to reduce or prevent the discharge of pollutants through the stormwater system. The SWPPP requirements in the draft permit are intended to provide a systematic approach by which the permittee shall at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are used to achieve compliance with the conditions of the permit. The SWPPP shall be prepared in accordance with good engineering practices and identify potential sources of pollutants that may reasonably be expected to affect the quality of stormwater discharges associated with industrial activity from the facility. The SWPPP documents the appropriate BMPs implemented or to be implemented at the facility. These

non-numeric effluent limitations support, and are equally enforceable as, the numeric effluent limitations included in the draft permit.

Implementation of the SWPPP involves the following four main steps:

- (1) Forming a team of qualified facility personnel who will be responsible for developing and updating the SWPPP and assisting the site manager in its implementation,
- (2) Assessing the potential stormwater pollution sources,
- (3) Selecting and implementing appropriate management practices and controls for these potential pollution sources, and
- (4) Periodically re-evaluating the effectiveness of the SWPPP in preventing stormwater contamination and in complying with the various terms and conditions of the permit.

Pursuant to Section 304(e) of the CWA and 40 CFR §125.103(b), BMPs may be expressly incorporated into a permit on a case-by-case basis where necessary to carry out Section 402(a)(1) of the CWA.

Generally, BMPs should include processes, procedures, schedules of activities, prohibitions on practices, and other management practices that prevent or reduce the discharge of pollutants in stormwater runoff. A copy of the most recent SWPPP shall be kept at the facility and be available for inspection by EPA and MassDEP. The draft permit requires the permittee to continue to implement the SWPPP and revise it as necessary no later than ninety (90) days after the permit's effective date.

Site-specific BMPs included in the SWPPP are activities such as catch basin and manhole cleaning and sediment forebay maintenance. These and the other portions of the SWPPP are required in the draft permit as technology-based effluent limitations. Planned and accomplished actions undertaken to implement these site-specific BMPs shall be reported in an Annual Report as further described below. The draft permit's site-specific BMPs are as follows:

Pipeline Cleaning and Inspection

The draft permit requires PEDA to hydraulically clean and inspect all active drainage pipes discharging to the north forebay at least once within one year of the effective date of the permit. These pipes, mostly in the old Teens Complex of the old GE site (shown in green on **Figure 2, PEDA Site Map**), are several decades old and may contain debris from storm flows and demolition activities. New stormwater infrastructure that was installed by PEDA after 2005 is not subject to this requirement. This stormwater piping cleaning and inspection work can be supplemented, or potentially replaced, by a program to plug existing stormwater pipes and provide an acceptable alternative infiltration and/or draining system that does not contribute pollutants to Outfall 001.

Maintenance and Debris Removal from Sediment Forebays and Water Quality Basin

The draft permit requires frequent inspection and debris removal from sediment forebays and the water quality basin. Sediment forebays are built to reduce stormwater velocities and settle out suspended solids. However, sediment forebays are ineffective if they fill up or are allowed to erode. Sediment can also overflow into the larger water quality basin. The maintenance frequencies required in the draft permit are taken from Volume 2 Chapter 2: Structural BMP Specifications for the Massachusetts Stormwater Management Handbook¹⁵.

¹⁵ Available electronically at <http://www.mass.gov/eea/agencies/massdep/water/regulations/massachusetts-stormwater-handbook.html>

Debris Removal from Manholes and Catch Basins

This BMP requires the permittee to perform an initial inspection and cleaning of active manholes and catch basins to remove any accumulated debris or sediment. Rather than a specific frequency for cleaning catch basins, the draft permit requires the permittee to optimize its frequency of routine cleaning with a goal that no basin shall be greater than 50 percent full. The permittee must track the amount of material removed from each basin and increase the frequency of cleaning if evidence suggests that material is accumulating more quickly than in other basins.

EPA encourages the use of catch basin inserts or filter socks to improve removal of suspended solids entering catch basins. If used, these devices must be maintained per manufacturer specifications to prevent clogging or sediment escape.

Open Space Management

This BMP requires the permittee to establish requirements for use of slow release fertilizers on permittee owned property currently using fertilizer, in addition to reducing and managing fertilizer use. Establish procedures to address the proper use, storage, and disposal of pesticides, herbicides, and fertilizers including minimizing the use of these products and using only in accordance manufacturer's instruction. Evaluate lawn maintenance and landscaping activities to ensure practices are protective of water quality. Protective practices include reduced mowing frequencies, proper disposal of lawn clippings, and use of alternative landscaping materials (e.g., drought resistant planting).

Also, establish procedures to properly manage grass cuttings and leaf litter on permittee property, including prohibiting blowing organic waste materials onto adjacent impervious surfaces.

Annual Report on Site-specific BMPs

PEDA will prepare an annual BMP summary report for submittal to the EPA and MassDEP. That report will describe all completed activities, and provide relevant information and data as appropriate. Other information (e.g., proposed additional BMPs, schedule updates, etc.) will also be provided in the annual summary. This summary is due on March 15 of each year following the effective date of the permit (see Part I.C.9. of permit)

VII. Essential Fish Habitat Determination (EFH)

Under the 1996 Amendments (PL 104-267) to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. §1801 et seq. (1998)), EPA is required to consult with the National Marine Fisheries Services (NMFS) if EPA's action or proposed actions that it funds, permits, or undertakes, may adversely impact any essential fish habitat, such as: waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (16 U.S.C. §1802 (10)). "Adversely impact" means any impact which reduces the quality and/or quantity of EFH (50 CFR § 600.910 (a)). Adverse effects may include direct (e.g., contamination or physical disruption), indirect (e.g., loss of prey, reduction in species' fecundity), site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions. Essential fish habitat is only designated for species for which federal fisheries management plans exist (16 U.S.C. §1855(b) (1) (A)). EFH designations for New England were approved by the U.S. Department of Commerce on March 3, 1999. The Housatonic River and Silver Lake are not covered by the EFH designation, and thus EPA has determined that a formal EFH consultation with NMFS is not required.

VIII. Endangered Species Act

Section 7(a) of the Endangered Species Act of 1973, as amended (ESA), grants authority to and imposes requirements upon Federal agencies regarding endangered or threatened species of fish, wildlife, or plants (“listed species”) and habitat of such species that has been designated as critical (a “critical habitat”). The ESA requires every Federal agency, in consultation with and with the assistance of the Secretary of Interior, to ensure that any action it authorizes, funds, or carries out, in the United States or upon the high seas, is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat. The United States Fish and Wildlife Service (USFWS) typically administers Section 7 consultations for bird, terrestrial, and freshwater aquatic species. The National Marine Fisheries Service (NMFS) typically administers Section 7 consultations for marine species and anadromous fish.

EPA has reviewed the federal endangered or threatened species of fish and wildlife to determine if any listed species might potentially be impacted by the re-issuance of this NPDES permit. The review revealed that the only federally protected species that merits further discussion is the bog turtle (*Clemmys muhlenbergii*).

PEDA discharges stormwater and groundwater infiltration into Silver Lake, which is hydrologically connected to the Housatonic River. The bog turtle has been identified in Egremont and Sheffield, Massachusetts, which are approximately 25 miles away from Pittsfield. In addition, the bog turtle is found in wet meadows, according to the USFWS website. This species would not likely be found in an open lake; therefore even if the species is found closer to the Pittsfield area, it is unlikely that it would come into contact with the PEDA discharge.

Based on the permit conditions and absence of listed species in the vicinity of the facility’s discharge, EPA has determined that this permit action will have no effects on this species. EPA is coordinating a review of this finding with USFWS through the draft permit, this fact sheet, and a letter under separate cover.

IX. Monitoring and Reporting

The effluent monitoring requirements have been established to yield data representative of the discharge under authority of Section 308 (a) of the CWA in accordance with 40 CFR §§122.41 (j), 122.44 (l), and 122.48.

The draft permit includes new provisions related to Discharge Monitoring Report (DMR) submittals to EPA and the State. The Draft Permit requires that, no later than six months after the effective date of the permit, the permittee submit all monitoring data and other reports required by the permit to EPA using NetDMR, unless the permittee is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for submitting DMRs and reports (“opt-out request”).

In the interim (until six months from the effective date of the permit), the permittee may either submit monitoring data and other reports to EPA in hard copy form, or report electronically using NetDMR.

NetDMR is a national web-based tool for regulated Clean Water Act permittees to submit discharge monitoring reports (DMRs) electronically via a secure Internet application to U.S. EPA through the Environmental Information Exchange Network. NetDMR allows participants to discontinue mailing in hard copy forms under 40 CFR Part 122.41 and Part 403.12. NetDMR is accessed from the following url: <http://www.epa.gov/netdmr>. Further information about NetDMR, including contacts for EPA Region 1, is provided on this website.

EPA currently conducts free training on the use of NetDMR, and anticipates that the availability of this training will continue to assist permittees with the transition to use of NetDMR. To participate in upcoming trainings,

visit <http://www.epa.gov/netdmr> for contact information for Massachusetts.

The Draft permit requires the permittee to report monitoring results obtained during each calendar month using NetDMR, no later than the 15th day of the month following the completed reporting period. All reports required under the permit shall be submitted to EPA as an electronic appendix to the DMR. Once a permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs or other reports to EPA and will no longer be required to submit hard copies of DMRs to MassDEP. However, permittees must continue to send hard copies of reports other than DMRs (such as toxicity test results) to MassDEP until further notice from MassDEP.

The Draft permit also includes an “opt-out” request process. Permittees who believe they cannot use NetDMR due to technical or administrative infeasibilities, or other logical reasons, must demonstrate the reasonable basis that precludes the use of NetDMR. These permittees must submit the justification, in writing, to EPA at least sixty (60) days prior to the date the facility would otherwise be required to begin using NetDMR. Opt-outs become effective upon the date of written approval by EPA and are valid for twelve (12) months from the date of EPA approval. The opt-outs expire at the end of this twelve (12) month period. Upon expiration, the permittee must submit DMRs and reports to EPA using NetDMR, unless the permittee submits a renewed opt-out request sixty (60) days prior to expiration of its opt-out, and such a request is approved by EPA.

Until electronic reporting using NetDMR begins, or for those permittees that receive written approval from EPA to continue to submit hard copies of DMRs, the draft permit requires that submittal of DMRs and other reports required by the permit continue in hard copy format. Hard copies of DMRs must be postmarked no later than the 15th day of the month following the completed reporting period. Hard copies of WET test reports must be postmarked by the 30th day of the month following the test.

X. State Permit Conditions

The NPDES Permit is issued jointly by the U. S. Environmental Protection Agency and the Massachusetts Department of Environmental Protection under federal and state law, respectively. As such, all the terms and conditions of the permit are therefore incorporated into and constitute a discharge permit issued by the Commissioner of the Massachusetts Department of Environmental Protection pursuant to M.G.L. Chap.21, §43.

XI. State Water Quality Certification Requirements

The staff of the MassDEP have reviewed the draft permit. EPA has requested permit certification by the State pursuant to 40 CFR §124.53 and expects that the draft permit will be certified.

XII. General Conditions

The general conditions of the permit are based on 40 CFR §§122, Subparts A and D and 40 CFR §124, Subparts A, D, E, and F and are consistent with management requirements common to other permits.

XIII. Public Comment Period and Procedures for Final Decision

All persons, including applicants, who believe any condition of the draft permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the (30) thirty day public comment period, to the following two addresses:

Robin L. Johnson
U.S. EPA
5 Post Office Square, Suite 100
Mail Code OEP06-1
Boston, Massachusetts 02114

And

Cathy Vakalopoulos
MassDEP
Department of Environmental Protection
1 Winter St. Boston, Massachusetts 02108

Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to EPA and the State Agency. Such requests will state the nature of the issues proposed to be raised in the hearing. Public hearings may be held after at least thirty days public notice whenever EPA finds that response to this notice indicates a significant public interest. A copy of the draft permit and fact sheet will be available at the locations listed below. In reaching a final decision on the draft permit, EPA will respond to all significant comments and make these responses available to the public at EPA's Boston office.

Following the close of the comment period and after a public hearing, if such a hearing is held, EPA will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice.

XIV. Copy of the Draft Permit and Fact Sheet

A copy of the draft permit and fact sheet may be viewed at the following locations:

- EPA's GE Housatonic River Site website: www.epa.gov/ne/ge
- EPA New England NPDES website:
http://epa.gov/region1/npdes/draft_permits_listing_ma.html
- MassDEP's website:
<http://www.mass.gov/eea/agencies/massdep/news/comment/>

XV. State Contact

Additional information concerning the draft permit may be obtained between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays from:

Cathy Vakalopoulos
Massachusetts Department of Environmental Protection
1 Winter Street
Boston, MA 02108
Telephone: (617) 348-4026
email: catherine.vakalopoulos@state.ma.us

XVI. EPA Contact

Additional information concerning the draft permit may be obtained between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays from:

Robin L. Johnson
U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code OEP06-01
Boston, MA 02109
Telephone: (617) 918-1045
email: johnson.robin@epa.gov

_____ Ken Moraff, Director
Date Office of Ecosystem Protection
U.S. Environmental Protection Agency

Appendix A
Effluent Characteristics, January 2010 - December 2013

Month	Flow, avg monthly MGD	Flow, max daily MGD	pH min s.u.	pH max s.u.	TSS, max daily lbs/day	TSS, avg monthly lbs/day	Oil and Grease lb/day	Oil and Grease mg/l	PCB lbs/day
Jan-10	0.116	3.521	7.98	7.98	1850	1850	0	0	1.27E-02
Feb-10	0.073	1.007	8.16	8.16	641.28	641.28	10.16	1.21	7.00E-04
Mar-10	0.395	2.538	8.14	8.47	21.1	21.1	0	0	4.02E-05
Apr-10	0.154	0.406	8.06	8.41	66.31	66.31	0	0	8.30E-05
May-10	0.104	0.706	7.75	8.1	96.78	96.78	0	0	3.11E-04
Jun-10	0.09	0.845	7.64	8.27	8.49	8.49	0	0	2.06E-05
Jul-10	0.11	1.39	8.37	9.11	0.2	0.2	0.5	40	1.96E-06
Aug-10	0.51	7.33	6.5	8.1	283.2	283.2	0	0	5.48E-05
Sep-10	0.07	2.17	7.55	7.55	660	660	23.04	1.27	1.61E-02
Oct-10	0.25	4.39	7.53	8.61	33	33	0	0	1.48E-04
Nov-10	0.04	0.84	7.57	7.92	18.7	18.7	1.8	2.02	1.40E-04
Dec-10	0.05	1.51	8.08	8.22	153.9	153.9	0	0	5.79E-04
Jan-11	F	F	F	F	F	F	F	F	F
Feb-11	F	F	F	F	F	F	F	F	F
Mar-11	0.22	2.07	7.72	8.31	11	11	24.5	1.42	2.63E-03
Apr-11	0.29	1.69	8.03	8.52	15.7	27	0	0	4.48E-05
May-11	0.11	0.37	8.13	8.66	1471.1	1471.1	0.2	1.37	1.29E-04
Jun-11	0.37	1.57	7.33	8.2	116.3	116.3	0	0	1.83E-04
Jul-11	0.11	1.39	8.34	9.11	0.2	0.2	0.5	40	1.96E-06
Aug-11	0.51	7.33	6.5	8.01	283.2	283.2	0	0	5.48E-05
Sep-11	0.71	3.86	7.58	7.76	500.6	500.6	0	0	1.31E-02
Oct-11	0.14	0.92	7.89	8.02	10.5	10.5	0	0	7.21E-04
Nov-11	0.11	1.93	8.03	8.13	12.6	12.6	0	0	5.42E-06
Dec-11	0.23	2.52	7.55	8.31	3.2	3.2	1.3	1.86	2.23E-04
Jan-12	0.21	0.24	7.66	8.3	7.2	7.2	0	0	4.14E-04
Feb-12	0.02	0.36	7.71	8.06	0.5	0.5	0.1	0.98	3.91E-05
Mar-12	0.02	0.16	8.04	8.43	1.35	1.35	0.04	1.62	2.55E-06
Apr-12	0.03	0.6	8.32	8.32	256.92	256.92	7.04	1.4	5.71E-04
May-12	0.11	0.88	8.19	9.14	148.73	148.73	2.33	1.6	2.08E-04
Jun-12	0.06	0.89	8.18	8.62	F	F	0	0	3.47E-05
Jul-12	0.01	0.19	7.36	7.36	F	F	F	F	F
Aug-12	0.12	2.29	7.7	7.7	5.26	5.26	F	F	F
Sep-12	0.06	0.68	7.55	7.55	33.14	33.14	0.83	1.11	7.39E-05
Oct-12	0.06	1.05	7.4	7.95	117.1	117.1	36.14	4.15	1.74E-03
Nov-12	F	F	F	F	F	F	F	F	F
Dec-12	0.05	0.98	8.39	8.39	77.3	77.3	8.4	2.9	4.31E-04
Jan-13	F	F	7.45	7.45	F	F	F	F	F
Feb-13	0.05	1.27	8.05	8.05	319.8	319.8	2.7	1.9	1.83E-04
Mar-13	0.05	1.08	7.47	8.6	736.3	736.3	17	1.89	1.05E-03
Apr-13	0.05	0.67	8.66	8.66	308.2	308.2	0	0	1.80E-04
May-13	0.27	1.42	7.71	7.71	39.5	39.5	7.7	1.96	7.14E-04
Jun-13	1.09	2.04	7.74	8.3	140.3	140.3	442.3	25.3	0.00E+00
Jul-13	NS	NS	7.94	8.16	72.5	72.5	0	0	2.21E-04
Aug-13	NS	NS	7.9	7.9	166.1	166.1	29	1.24	2.54E-03
Sep-13	0.07	1.73	7.55	7.68	32.7	32.7	0	0	1.32E-04
Oct-13	F	F	7.47	7.47	F	F	F	F	F
Nov-13	0.07	1.73	7.55	7.48	32.7	32.7	0	0	1.32E-04
Dec-13	0.025	0.396	7.92	7.92	66.5	66.5	16.2	5.43	3.94E-04
1992 Permit Limits	1.1	2.55	6	9	628	138	319	15	Report
Minimum	0.01	0.16	6.5	7.36	0.2	0.2	0	0	1.96E-06
Average	0.2	1.8	7.8	8.2	227.6	228.0	3.6	3.3	0.0
Maximum	0.71	7.33	8.37	9.14	1850	1850	36.14	40	0.0161
Standard Deviation	0.2	1.8	0.4	0.4	433.4	433.2	8.7	10.0	0.0
# measurements	36	36	36	36	36	36	36	36	36
# exceed 1992 permit limit	0	5	0	3	5	15	1	3	N/A

bold = exceeds 1992 permit limit
N/A = not applicable
PCB = Polychlorinated biphenyl
TSS = Total Suspended Solids
F = not sampled due to insufficient flow
NS = Not sampled due to equipment issues

Appendix A
Effluent Characteristics, January 2010 - December 2013

PCB Data, Outfall 001		
Date	Total PCBs (µg/L)	Reporting Limit (µg/L)
1/26/2010	0.376	0.065
2/26/2010	0.0414	0.065
3/17/2010	0.0789	0.065
4/9/2010	0.027	0.065
5/14/2010	0.0723	0.065
6/15/2010	0.0247	0.065
7/27/2010	0.737	0.065
8/1/2010	F	F
9/30/2010	0.885	0.065
10/7/2010	0.1043	0.065
11/5/2010	0.154	0.065
12/1/2010	0.0458	0.065
1/1/2010	F	F
2/1/2010	F	F
3/11/2011	0.1523	0.065
3/22/2011	0.0508	0.065
4/2/2011	0.0639	0.065
4/12/2011	Non-detect	0.065
5/16/2011	0.1129	0.065
6/23/2011	0.0888	0.065
7/19/2011	0.1645	0.065
8/16/2011	0.1093	0.065
9/7/2011	0.406	0.065
10/14/2011	0.1051	0.065
11/18/2011	0.0548	0.065
12/9/2011	0.3237	0.065
1/13/2012	0.2037	0.065
2/6/2012	0.3745	0.065
3/23/2012	0.1013	0.065
4/23/2012	0.1137	0.065
5/9/2012	0.1426	0.065
6/4/2012	0.1393	0.065
7/1/2012	F	F
8/1/2012	F	F
9/19/2012	0.0991	0.065
10/19/2012	0.1983	0.065
11/1/2012	F	F
12/18/2012	0.1326	0.065
1/1/2013	F	F
2/28/2013	0.1294	0.065
3/14/2013	0.1162	0.065
4/12/2013	0.0571	0.065
5/24/2013	0.1812	0.065
6/7/2013	Non-detect	0.065
7/26/2013	0.0489	0.065
8/12/2013	0.1086	0.065
9/13/2013	0.0778	0.065
10/1/2013	F	F
11/1/2013	0.0456	0.065
12/23/2013	0.1318	0.065
minimum	0.0247	
average	0.164505	
maximum	0.885	

Appendix B Silver Lake Pre-Remediation PCB Data

Silver Lake
Pre-construction surface water results
Samples collected at outlet to Housatonic River

Date	Total PCBs (µg/L)	Date	Total PCBs (µg/L)
12/19/2006	0.181	4/29/2010	0.193
1/24/2007	0.103	6/2/2010	0.269
2/28/2007	0.123	6/29/2010	0.409
3/20/2007	0.044	7/28/2010	0.297
4/26/2007	0.223	8/26/2010	0.372
5/30/2007	0.41	9/22/2010	0.297
6/28/2007	0.362	10/28/2010	0.08
7/26/2007	0.576	11/18/2010	0.093
9/5/2007	0.799	12/16/2010	0.071
9/26/2007	0.93	2/4/2011	0.094
10/30/2007	0.411	3/1/2011	0.141
11/27/2007	0.319	3/30/2011	0.058
12/20/2007	0.203	4/28/2011	0.039
1/29/2008	0.164	5/26/2011	0.149
2/28/2008	0.088	6/29/2011	0.165
3/26/2008	0.255	7/26/2011	0.525
4/30/2008	0.317	8/31/2011	0.273
5/28/2008	0.433	9/29/2011	0.23
6/25/2008	0.518	10/25/2011	0.181
7/31/2008	0.502	11/29/2011	0.201
8/26/2008	0.381	12/20/2011	0.129
9/24/2008	0.293	1/19/2012	0.127
10/30/2008	0.218	2/16/2012	0.132
11/18/2008	0.131	3/29/2012	0.177
12/16/2008	0.1	4/25/2012	0.214
1/22/2009	0.085	5/24/2012	0.358
2/26/2009	0.128	6/28/2012	0.786
3/26/2009	0.13	7/19/2012	0.697
4/28/2009	0.156	Average	0.264
5/28/2009	0.351	Maximum	0.930
6/25/2009	0.377	Minimum	0.044
7/21/2009	0.253	# of samples	0
8/27/2009	0.281		
9/24/2009	0.287		Results are a summation of quantified Aroclors
10/29/2009	0.137		
11/19/2009	0.392		
12/18/2009	0.128		
1/21/2010	0.142		
2/23/2010	0.1		
3/25/2010	0.13		

Appendix C

Silver Lake Post-Remediation PCB Data

Silver Lake Post-Remediation PCB Data

All data collected at lake discharge channel

Date	Total PCBs (µg/L)	Laboratory	Notes
10/14/2013	0.04	GE	First data with dam removed
10/29/2013	0.06	GE	Start of monthly sampling
11/21/2013	0.038	GE	
12/19/2013	0.028	GE	
1/28/2014	ND (0.022)	GE	
2/20/2014	0.038	GE	
3/27/2014	0.044	GE	
4/24/2014	ND (0.010)	EPA/Weston	Split Sample
4/24/2014	0.063	GE	
5/21/2014	0.08	GE	
6/26/2014	0.097	GE	
7/22/2014	0.004	EPA/CLP	Split Sample
7/22/2014	ND (0.010)	EPA/Weston	Split Sample
7/22/2014	0.094	GE	GE DATA
median	0.044		

Notes:

1. Results are a summation of quantified Aroclors
2. ND = Non-detect with the detection limit shown in parenthesis
3. GE's laboratory was Pace Analytical Services
4. EPA/Weston laboratory was Test America, Burlington, Vermont
5. EPA/CLP is laboratory contracted by EPA under the Contract Lab Program

Appendix D

State Permit No. 356
Federal Permit No. MA0003391
Page 1 of 30

MODIFICATION OF AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act, as amended, (33 U.S.C. §§ 1251 et seq.; the "CWA"), and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53),

General Electric Company

is authorized to discharge from the facility located at

100 Woodlawn Avenue
Pittsfield, MA 01201

to receiving waters named

East Branch of the Housatonic River,
Silver Lake and Unkamet Brook

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

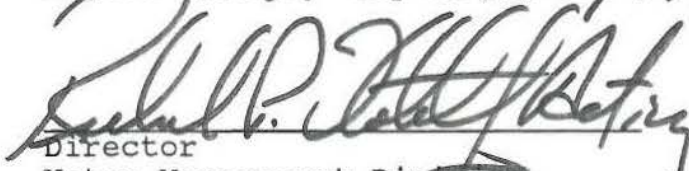
This permit modification shall become effective on the date of issuance.


This permit modification and the authorization to discharge shall expire at midnight, February 7, 1997.

This modifies the permit issued on September 30, 1988, which became effective on February 7, 1992 due to the resolution of the permittee's evidentiary hearing request.

This permit modification consists of 30 pages in Part I including effluent limitations, monitoring requirements, etc., and 22 pages in Part II including General Conditions and Definitions.

Signed this 21st day of May, 1992


Richard P. Kelly
Director
Water Management Division
Environmental Protection Agency
Region I
Boston, MA


Brian Donahoe
Director, Division of Water
Pollution Control
Department of Environmental
Protection
Commonwealth of Massachusetts
Boston, MA

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through the expiration date the permittee is authorized to discharge from outfall serial number 001 (non-contact cooling water and stormwater runoff) into Silver Lake.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	lbs/day		Other Units(Specify)		Measurement	Sample
	Avg. Monthly	Max. Daily	Avg. Monthly	Max. Daily	Frequency	Type
Flow-m ³ /Day (MGD)	-	-	1.10 mgd	2.55 mgd	Continuous	Recorder
Total Suspended Solids	138	628	-	-	Monthly	Composite
Oil & Grease	-	319	-	15 mg/l	Monthly	Grab
PCBs		Monitor			Monthly	Grab

See page 19 for metals monitoring requirements and limitations.

See page 22-27 for toxicity monitoring requirements and limitations.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored weekly, report range. If the pH of public water supply is less than 6.0, that would be the lower limit.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: at the discharge from oil/water separator.

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PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

3. During the period beginning on the effective date and lasting through the expiration date the permittee is authorized to discharge from outfall serial number 004 (contact cooling water, non-contact cooling water and stormwater runoff) into Silver Lake.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	Avg. Monthly	lbs/day Max. Daily	Other Units (Specify) Avg. Monthly	Max. Daily	Measurement Frequency	Sample Type
Flow-m ³ /Day (MGD)	-	-	0.38 mgd	2.09 mgd	1/month	Recorder
Oil & Grease	-	261		15 mg/l	1/month	Grab
Polychlorinated Biphenyls		Monitor			Quarterly	Grab

See page 22-27 for toxicity monitoring requirements and limitations.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored weekly, report range. If the pH of the public water supply is less than 6.0, that would be the lower limit.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: in plant manhole station on 004.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

4. During the period beginning on the effective date and lasting through the expiration date, the permittee shall monitor the discharge from internal serial number 05X (scrubber water discharge from the thermal oxidizer)

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent_Characteristic	Discharge_Limitations				Monitoring_Requirements	
	lbs/day		Other Units(specify)		Measurement	Sample
	Avg. Monthly	Max. Daily	Avg. Monthly	Max. Daily	Frequency	Type
Flow (MGD)	-	-	Report	Report	Monthly	Estimate
*Polychlorinated dibenzofurans (ppt)	-	-	Report	Report	Monthly	Composite

*The permittee shall submit lab reports with test result summaries each month with the appropriate DMRs. Reports and summaries shall list the test method used, and the detection limits for each congener or isomer analyzed. The method for analysis of polychlorinated dibenzofurans approved by EPA-Environmental Services Division (ESD) must be utilized.

Samples taken in compliance with the monitoring requirements specified above shall be collected during the same sampling period during which the polychlorinated dibenzofurans sample is collected at 005, and taken at the following locations: discharge point of scrubber effluent from the thermal oxidizer prior to mixing with any other wastestream or receiving water.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

5. During the period beginning on the effective date and lasting through January 31, 1989, the permittee is authorized to discharge from outfall serial number 005 (contact cooling water, non-contact cooling water, treated process water and stormwater runoff).

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	lbs/day		Other Units (Specify)		Measurement	Sample
	Avg. Monthly	Max. Daily	Avg. Monthly	Max. Daily	Frequency	Type
Flow-m ³ /Day (MGD)	-	-	1.08 mgd	1.08 mgd	Continuous	Daily Avg.
BOD5	90#/day	135#/day	-	-	Weekly	Composite
TSS	188	270	-	-	Weekly	Composite
*Polychlorinated Biphenyls	0.039	0.12	-	-	3/Weekly	Composite
**PCDD	-	-	Report	Report	Weekly	Composite
**PCDF	-	-	Report	Report	Weekly	Composite
Oil & Grease	-	135	-	15 mg/l	Weekly	Grab

*After 1 year of monitoring, with the new treatment system (see pg. 23) EPA will consider reduction of the monitoring frequency if the monitoring data shows that the permittee has complied with the permit limits.

**The permittee shall submit lab reports with test result summaries each month with the appropriate DMRs. Reports and summaries shall list the test method used, and the detection limits for each congener or isomer analysed. The method for analysis of PCDD and PCDF must be approved by EPA-Environmental Services Division (ESD). EPA may develop and require specific limitations for PCDDs and PCDFs through permit modification in the near future.

See page 13 for metals monitoring requirements and limitations.

See page 16-20 for toxicity monitoring requirements and limitations.

I.A.5. (con'd)

The pH shall not be less than 6.0 standard units nor greater than 8.5 standard units and shall be monitored weekly with 4 grab samples, report ranges. If the pH of the public water supply is less than 6.0, that would be the lower limit.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: discharge point of the treatment system.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

6. During the period beginning on February 1, 1989, and lasting through expiration date the permittee is authorized to discharge from outfall serial number 005 (contact cooling water, non-contact cooling water, treated process water, treated groundwater and stormwater runoff) to Housatonic River.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	Avg. Monthly	lbs/day Max. Daily	Other Units (Specify) Avg. Monthly Max. Daily		Measurement Frequency	Sample Type
Flow-m ³ /Day (MGD)	-	-	2.09 mgd	2.09 mgd	Continuous	Recorder
BOD5	90	135	-	-	Monthly	Composite
TSS	188	270	-	-	Monthly	Composite
Polychlorinated Biphenyls	0.01	0.03	-	-	Weekly	Composite
Polychlorinated* dibenzofurans	-	-	Report	Report	Monthly	Composite
Oil & Grease	-	135	-	15 mg/l	Weekly	Grab
**Volatile Compounds	-	-	Report	Report	Quarterly	Grab
***Semi-Volatile Compounds	-	-	Report	Report	Quarterly	Grab

*The permittee shall submit lab reports with test result summaries each month with the appropriate DMRs. Reports and summaries shall list the test method used, and the detection limits for each congener or isomer analyzed. The method for analysis of polychlorinated dibenzofurans approved by EPA-Environmental Services Division (ESD) must be utilized. EPA may develop and require specific limitations for PCDDs and PCDFs through permit modification in the future.

I.A.6. (con'd)

**Refers to the GC/MS Fraction - Volatile Compounds, as listed in Table V-C of NPDES Application Form 2C.

***Refers to the GC/MS Fractions - Base/Neutral/Acid Extractable Compounds, as listed in Table V-C of NPDES Application Form 2C.

See page 19 for metals monitoring requirements and limitations.

See pages 22-27 for toxicity monitoring requirements and limitations.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored weekly, report ranges. If the pH of the public water supply is less than 6.0, that would be the lower limit.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: for Volatile Compounds, Semi-Volatile Compounds, and pH, discharge point of the groundwater treatment system (64-G); for polychlorinated dibenzofurans and pH, discharge point from wastewater treatment system (64-T); for all other substances, discharge points from wastewater treatment system (64-T) and from groundwater treatment system (64-G), composited by flow.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

7. During the period effective date and lasting through expiration date the permittee is authorized to discharge from outfall serial number 007 (non-contact cooling water and stormwater runoff), to Housatonic River.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	kg/day (lbs/day)		Other Units (Specify)		Measurement	Sample
	Avg. Monthly	Max. Daily	Avg. Monthly	Max. Daily	Frequency	Type
Flow-m ³ /Day (MGD)	-	-	Report	Report	Monthly	Calculation
Temperature			70°F	75°	Monthly	Grab
*PCBs	-	-	Report	Report	Quarterly	Grab

See pages 22-27 for toxicity monitoring requirements and limitations.

* If all monitoring for this parameter at this outfall have resulted in nondetects after the completion of the fourth quarterly monitoring, then no further monitoring for this parameter at this outfall is required under this Permit. For purposes of this provision, any reading <0.5 ppb is defined as a nondetect.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored weekly, report range. If the pH of the public water supply is less than 6.0, that would be the lower limit.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: @ Manhole prior to city storm drain.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

8. During the period beginning on the effective date and lasting through the expiration date the permittee is authorized to discharge from outfall serial number 009 (non-contact cooling water, treated process water and stormwater runoff), to Unkamet Brook.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	lbs/day		Other Units (Specify)		Measurement	Sample
	Avg. Monthly	Max. Daily	Avg. Monthly	Max. Daily	Frequency	Type
Flow-m ³ /Day (MGD)	-	-	Report	Report	Continuous	Recorder
Oil & Grease	-	438	-	15 mg/l	Weekly	Grab
TSS	213	876	-	-	Weekly	Composite
BOD5	106	438	-	-	Weekly	Composite
PCBs	-	-	Report	Report	Quarterly	Grab

See page 19 for metals monitoring requirements and limitations.

See pages 22-27 for toxicity monitoring requirements and limitations.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored weekly, report range. If the pH of the public water supply is less than 6.0, that would be the lower limit.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: For BOD, TSS, and flow, at 09A and 09B, report sum of load as 009; for pH, oil & grease, and PCBs, at discharge point to Unkamet Brook.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

10. During the period beginning on the effective date and lasting through the expiration date the permittee is authorized to discharge metal finishing process wastewaters that discharge to outfalls 005, 009 and 011. These internal wastestream sampling points shall be designated 05H, 05I, 09G, 09H, 09I, 09J, and 11G. See page 15 of 30 for a list of the current metal finishing operation sampling points.

a. Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	kg/day (lbs/day)		Other Units (Specify)		Measurement Frequency	Sample Type
	Avg. Monthly	Max. Daily	Avg. Monthly	Max. Daily		
Flow, gpd	-	-	Report	Report	Daily, when in use	Estimate
Cadmium			0.26 mg/l	0.69 mg/l	2/month	Compositel
Chromium, total			1.71 mg/l	2.77 mg/l	2/month	Compositel
Copper			2.07 mg/l	3.38 mg/l	2/month	Compositel
Lead			0.43 mg/l	0.69 mg/l	2/month	Compositel
Nickel			2.38 mg/l	3.98 mg/l	2/month	Compositel
Silver			0.24 mg/l	0.43 mg/l	2/month	Compositel
Zinc			1.48 mg/l	2.61 mg/l	2/month	Compositel
Cyanide, total			0.65 mg/l	1.20 mg/l	1/month	Grab
*TTO			-	2.13 mg/l	1/quarter	Grab

1 Representative grab samples may be used for batch discharges.

*See page 21 for definition.

b. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored weekly, report range. If the pH of the public water supply is less than 6.0, that would be the lower limit.

I.A.10. (con'd)

c. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: at the end of treatment system prior to mixing with non-metal finishing flows. The exact monitoring location(s) approved by EPA & MA DEP shall be used.

d. The permittee shall submit to EPA and DEQE a report detailing each metal finishing discharge at the facility. At a minimum, this report must provide: the location of each discharge, and the final outfall, and DMR I.D. number (eg. 01A, 09C, etc.-- no more than three characters) for each discharge; the type of operation for each discharge; instantaneous (not averaged) daily flow for each batch discharge; volume of each batch discharge; frequency of each batch discharge; monthly average and daily maximum flows for each continuous discharge. This report shall also contain a complete and up-to-date process wastewater flow diagram for the facility, detailing exactly where each metal finishing discharge is sampled prior to mixing with any other wastestream or receiving water, where it enters the facility sewer system, and detailing process water discharges, treatment, and bypasses. Analyses for the metals listed on page 11 shall be conducted for each metal finishing discharge, and submitted with the report. As part of this report the permittee may submit alternative monitoring schemes for approval by EPA and DEQE. This report shall be submitted no later than 90 days after the effective date of the permit.

I.A.10. (con'd)

CURRENT LIST OF INTERNAL METAL FINISHING WASTESTREAMS

<u>EPA (DMR)</u> <u>I.D. No.</u>	<u>Outfall</u>	<u>Building</u>	<u>G.E.</u> <u>I.D. No.</u>	<u>Operation</u>
05H	005	63	W1- 3,9	Anodizing tanks, post inspection wash and rinse
05I	005	63	W1- 4A,B	Deburring tumbler
09G	009	OP-1	W1-2,4	East side rinse tanks, hose and rinse, lab sink, East side scrubber, anodize rinse continuous makeup, West side rinse water, West side scrubber, deburring tumblers, secondary rinse
09H	009	OP-1	W1-10	Engineering circuits lab
09I	009	OP-2	W1-1	Scanning electron microscope lab
09J	009	59	W1-1	Deburring tumblers and rinse sink
11G	011	OP-3	W1- 2,3	Anodizing rinsewater overflow and anodizing area sink

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

11. Each stormwater-related bypass through Outfall(s) serial number(s) 01A, 05A, 05B, 006, 06A, 09D, 11A, and the SROs is hereby approved as an anticipated bypass within the meaning of Part II, GENERAL REQUIREMENTS, (m) Bypass, Pages 7 & 8 of 19, PROVIDED that each of the following conditions are met:

a. Such bypass results from wet weather flow exceeding system capacity in accordance with the "Final Stormwater Management Plan," dated July, 1990, including any modifications, supplements, or later versions of such Plan approved by EPA [hereinafter referred to as the "Stormwater Plan"].

b. General Electric reports in the Discharge Monitoring Report for the month the date of such discharge.

c. General Electric conducts a physical inspection of all diversion devices no less frequently than quarterly, to determine whether discharges could occur during wet weather flows not exceeding the system capacities identified in the Stormwater Plan. The results of such physical inspection are to be reported together with the Discharge Monitoring Report to be submitted no later than four months after the issuance of this Modification of Authorization to Discharge, and every three months thereafter. If any such physical inspection reveals that discharges could occur during wet weather flows not exceeding the system capacities identified in the Stormwater Plan, General Electric is to identify and report to EPA and DEP the conditions under which such discharges could occur, and promptly propose to EPA and DEP and implement actions to make the conditions under which discharges could occur consistent with the terms of the Stormwater Plan.

d. General Electric conducts quarterly monitoring at the bypass outfalls for the following parameters:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	kg/day (lbs/day)		Other Units (Specify)		Measurement Frequency	Sample Type
	Avg. Monthly	Max. Daily	Avg. Monthly	Max. Daily		
Flow-m ³ /Day (MGD)	-	-		Monitor	Quarterly	*Estimate
**PCBs	-	-		Monitor	Quarterly	Grab
Oil and grease	-	-		15 ppm	Quarterly	Grab

- * Estimated instantaneous flow at time of sampling
- ** Monitoring for PCBs is not required at outfall 11A.

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored quarterly.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations: for 11A, at overflow weir in manhole outside oil/water separator at building OP#3; for all other outfalls, at points of discharge.

e. Allowance of such bypasses may be terminated by EPA or DEP upon the finding that such discharges no longer satisfy the provisions of Part II, General Requirements, (m) Bypass, or that they pose a threat or a potential threat to human health or the environment.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

12. During the period beginning on the effective date and lasting through the expiration date the permittee is authorized to discharge from outfall(s) serial number(s) 05A and 006 nonprocess water from the operation of the barrel screens, to Housatonic River.

Such dry weather discharges through outfalls 05A and 006 shall be monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>		
	kg/day (lbs/day)		Other Units (Specify)		Measurement	Sample	
	Avg. Monthly	Max. Daily	Avg. Monthly	Max. Daily	Frequency	Type	
Flow-m ³ /Day (MGD)	-	-			Monitor	Quarterly	*Estimate
PCBs	-	-			Monitor	Quarterly	Grab
Oil and grease	-	-			15 ppm	Quarterly	Grab

* Estimated instantaneous flow at time of sampling

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored quarterly.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken when no bypass flows are contributing to discharge, at the following location: at point of discharge.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

13. During the period beginning on the effective date and lasting through expiration date the permittee is authorized to discharge from outfall(s) serial number(s) 001,004,005,007,009 & 011.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	Avg. Monthly	Max. Daily	Other Units (Specify) Avg. Monthly Max. Daily		Measurement Frequency	Sample Type
Copper		Monitor Only			Weekly	Composite
Zinc		"			Weekly	"
Lead		"			Weekly	"
Cadmium		"			Monthly	"
Chromium		"			Monthly	"
Aluminum		"			"	"
Nickel		"			"	"
Phosphorus		"			"	"
Silver		"			"	"
Cyanide		"			"	Grab
*NOAEL		≥35%			*	*
*NOCEL		Monitor Only			*	*

* See pages 22-27 for definitions and description of toxicity monitoring requirements and limitations.

The test sample shall be a composite sample made by combining proportionate to flow 24 hour composite samples collected at outfalls 001, 004, 005, 007, 009 and 011.

14. All existing manufacturing, commercial, mining, and silvi-cultural dischargers must notify the Director as soon as they know or have reason to believe:
 - a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) One hundred micrograms per liter (100 ug/l);
 - (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l for antimony;
 - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. §122.21(g)(7); or
 - (4) Any other notification level established by the Director in accordance with 40 C.F.R. §122.44(f).
 - b. That any activity as occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) Five hundred micrograms per liter (500 ug/l);
 - (2) One milligram per liter (1 mg/l) for antimony;
 - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. §122.21(g)(7); or
 - (4) Any other notification level established by the Director in accordance with 40 C.F.R. §122.44(f).
 - c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.

d. Total Toxic Organics

The term Total Toxic Organics (TTO) is the summation of all quantifiable values greater than 0.01 milligrams per liter (mg/l) for the following:

Acenaphthene	Bis (2-chloroethoxy) methane	1,2,5,6-Dibenzanthracene
Acrolein	Methylene chloride (dichloromethane)	(dibenzo(a,h)anthracene)
Acrylonitrile	Methyl chloride (chloromethane)	
Benzene	Methyl bromide (bromomethane)	Indeno(1,2,3-cd) pyrene
Benzidine	Bromoform (tribromomethane)	(2,3-o-phenylene pyrene)
Carbon tetrachloride (tetrachloromethane)	Dichlorobromomethane	Pyrene
Chlorobenzene	Chlorodibromomethane	Tetrachloroethylene
1,2,4-Trichlorobenzene	Hexachlorobutadiene	Toluene
Hexachlorobenzene	Hexachlorocyclopentadiene	Trichloroethylene
1,2-Dichloroethane	Isophorone	Vinyl chloride (chloroethylene)
1,1,1-Trichloroethane	Naphthalene	Aldrin
Hexachloroethane	Nitrobenzene	Dieldrin
1,1-Dichloroethane	2-Nitrophenol	Chlordane (technical mixture and
1,1,2-Trichloroethane	4-Nitrophenol	metabolites)
1,1,2,2-Tetrachloroethane	2,4-Dinitrophenol	4,4-DDT
Chloroethane	4,6-Dinitro-o-cresol	4,4-DDE (p,p-DDX)
Bis (2-chloroethyl) ether	N-nitrosodimethylamine	4,4-DDD (p,p-TDE)
2-Chloroethyl vinyl ether (mixed)	N-nitrosodiphenylamine	Alpha-endosulfan
2-Chloronaphthalene	N-nitrosodi-n-propylamine	Beta-endosulfan
2,4,6-Trichlorophenol	Pentachlorophenol	Endosulfan sulfate
Parachlorometa cresol	Phenol	Endrin
Chloroform (trichloromethane)	Bis (2-ethylhexyl) phthalate	Endrin aldehyde
2-Chlorophenol	Butyl benzyl phthalate	Heptachlor
1,2-Dichlorobenzene	Di-n-butyl phthalate	Heptachlor epoxide
1,3-Dichlorobenzene	Di-n-octyl phthalate	(BHC-hexachloro-
1,4-Dichlorobenzene	Diethyl phthalate	cyclohexane)
3,3-Dichlorobenzidine	Dimethyl phthalate	Alpha-BHC
1,1-Dichloroethylene	1,2-Benzanthracene	Beta-BHC
1,2-Trans-dichloroethylene	(benzo(a)anthracene)	Gamma-BHC
2,4-Dichlorophenol	Benzo(a)pyrene (3,4-benzopyrene)	Delta-BHC
1,2-Dichloropropane (1,3-dichloropropene)	3,4-Benzofluoranthene	(PCB-polychlorinated biphenyls)
2,4-Dimethylphenol	(benzo(b)fluoranthene)	PCB-1242 (Arochlor 1242)
2,4-Dinitrotoluene	11,12-Benzofluoranthene	PCB-1254 (Arochlor 1254)
2,6-Dinitrotoluene	(benzo(k)fluoranthene)	PCB-1221 (Arochlor 1221)
1,2-Diphenylhydrazine	Chrysene	PCB-1232 (Arochlor 1232)
Ethylbenzene	Acenaphthylene	PCB-1248 (Arochlor 1248)
Fluoranthene	Anthracene	PCB-1260 (Arochlor 1260)
4-Chlorophenyl phenyl ether	1,12-Benzoperylene (benzo(ghi)perylene)	PCB-1016 (Arochlor 1016)
4-Bromophenyl phenyl ether	Fluorene	Toxaphene
Bis (2-chloroisopropyl) ether	Phenanthrene	2,3,7,8-Tetrachlorodibenzo-p-dioxin
		(TCDD)

In monitoring for TTO, the permittee shall analyze for only those pollutants which would reasonably be expected to be present. The permittee may make the following certification on its monitoring reports in lieu of conducting an analysis: "Based on my inquiry of the person or persons directly responsible for managing compliance with permit limitations for total toxic organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics has occurred since filing of the last monitoring report. I further certify that this facility is implementing the solvent management plan submitted to the permitting authority".

In requesting the certification alternative the permittee shall submit a solvent management plan that specifies, to the satisfaction of the permitting authority, the toxic organic compounds used; the method of disposal used instead of dumping, such as reclamation, contract hauling, or incineration; and procedures for insuring that toxic organics do not routinely spill or leak into the wastewater. This plan shall become an enforceable provision of this permit.

PART I

15. Toxicity Testing Requirement

TOXICITY TESTING

Toxicity of the effluent discharged from outfalls 001,004,005, 007,009 & 011 shall be measured by a 48 hour static acute toxicity test and a 7 day chronic static toxicity test, using *daphnia pulex* and *ceriodaphnia sp*, respectively, as the test organisms.

Each acute test shall be run in duplicate using a minimum of five dilutions and a control. Each chronic toxicity test shall use a minimum of five dilutions and a control. The dilution and control water shall be collected from the East Branch of the Housatonic River upstream of the discharge, with an additional control to be run with lab water. The test sample shall be a composite sample made by combining proportionate to flow 24 hour composite samples collected at outfall 001,004,005,007,009 & 011.

The NOAEL (no observed acute effect level) is the concentration of the test sample at which 90% or more of the test organisms survive after 48 hours.

The NOCEL (no observed chronic effect level) is the highest effluent concentration by volume which causes no adverse effects on the survival, growth, or reproduction of the test organisms.

Toxicity testing will be conducted on the following schedule:

<u>Calendar Period</u>	<u>Testing Required</u>	<u>Duration</u>	<u>Limit</u>
Monthly	1 acute (report NOAEL) per month (one test per quarter is to be under wet weather conditions, if possible)	48 hours	≥ 35%*
July, August and September	1 chronic (report NOAEL and NOCEL) per calendar month.	7 days	Report only

Each report shall include a chemical analysis for the parameters listed in the table on page 23 of 30.

* This limitation applies to dry weather testing only. The results of wet weather testing are to be reported only.

Toxicity Testing - continued:

CHEMICAL ANALYSES OF EFFLUENT SAMPLE AND DILUENT

Parameter to be Tested	Sample to be tested	
	Dilution Water	Effluent Sample
1 Chlorine, Total Residual		x (see Note 1)
2 Hardness	x	x
Alkalinity, Total	x	x
pH	x	x
Specific Conductance	x	x
Ammonia	x	x
Aluminum	x	x
Copper (total)	x	x
Lead (total)	x	x
Chloride	x	x
Total Solids	x	x
Total Suspended Solids	x	x
Total Organic Carbon	x	x
Zinc	x	x
Cadmium	x	x
Chromium	x	x
Nickel	x	x
Phosphorus	x	x
Silver	x	x
Cyanide	x	x

1. Chlorine Residual (only to be run by facilities using chlorine). Three tests will be run on each sample collected for testing:
 - a. one at time of collection (for composite samples, at end of compositing period).
 - b. one at initiation of the toxicity test.
 - c. one at termination of the toxicity test. Test residual in one of the 100% effluent test replicates.

Methods: either of the following methods from the 16th edition of the APHA (1985) Standard Methods for the Examination of Water and Wastewater may be used for these analyses:

- a. Method 408-C (Amperometric Titration Method).
- b. Method 408-C (Ferrous Titrimetric Method).

2. Hardness

Method: 314 A (Hardness by Calculation) from APHA Standard Methods, 16th edition (1985). Method 314 B may be used for determining the hardness of the daily samples from the chronic toxicity test.

For metals (effluent samples only), Dissolved Metals shall be analyzed in addition to Total Metals. Effluent samples collected for dissolved analyses are first passed through a 0.45 um filter. The pH of this sample is then reduced to between 1.5 and 2.0 standard units for storage. The resulting sample is analyzed using the same methods as for Total Metals (set forth in the protocol).

I) ACUTE TOXICITY TESTING

I. ACUTE TOXICITY TESTING

a. Acute Toxicity Testing is used to determine the effluent concentrations, by volume that is lethal to 50 percent of the test organisms within a prescribed period of time, usually 96 hours or less. Death is the effect measured. Effluent toxicity thus measured is expressed as the median lethal concentration, in percent effluent by volume, or LC50. The no-observed effect level is the effluent concentration at which 90% or more test organisms survive.

b. Test Protocol

Test type - Static acute

Duration - 48 hours

Species - daphnia pulex (daphnid-water flea)

End Point - LC50 and No observed effect concentration reported as the NOAEL (No observed Acute Effect Level).

Dry Weather NOAEL limit \geq 35%

Monitoring Frequency - monthly.

One test per quarter is to be under wet weather conditions, if possible.

(wet weather NOAEL is to be reported only).

Sample Type - Composite

Diluent - Upstream receiving water (unless otherwise authorized)*

* When upstream receiving water is used as a diluent in the toxicity test, additional controls (0% effluent) made of laboratory water of known quality will also be used. The number of additional controls shall equal the number of replicates used in the test.

Dilution water collected from the receiving water shall be collected upstream of the discharge at a point that is free from mixing with the discharge.

Toxicity Test procedures shall be approved by EPA Environmental Services Division (Telephone Number 617-861-6700).

A portion of each whole effluent sample used for toxicity testing and a portion of the upstream dilution water shall be chemically analyzed. See page 23 of 30 for specific chemical by chemical requirements. Raw bench data for the toxicity tests shall be submitted with the toxicity results.

II. CHRONIC TOXICITY TESTING

a. Chronic toxicity testing is used to detect the subtle, low level, long term, adverse effects of effluents on aquatic organisms, such as a reduction of growth and reproduction. Recently developed test methods have resulted in the availability of methodology which allows detection of chronic effects in seven days or less. Short term chronic toxicity testing is used to determine the highest effluent concentration by volume which causes no adverse effects on the survival, growth, or reproduction of the test organisms. This concentration is expressed as the No Observed Chronic Effect Level (NOCEL).

b. Test protocol

Test type - Reproductive chronic, static

Duration - 7 days

Species - Daphnid Ceriodaphnia sp

Endpoint - No Observed effect concentration reported as the NOCEL (no observed chronic effect level). Also report mortality of ceriodaphnia at various effluent dilutions.

Monitoring Frequency - July, August and September

Sample Type - Composite

Diluent - Upstream receiving water (unless otherwise authorized)*

* When upstream receiving water is used as a diluent in the toxicity test, additional controls (0% effluent) made of laboratory water of known quality will also be used. The number of additional controls shall equal the number of replicates used in the test.

Dilution water collected from the receiving water shall be collected upstream of the discharge at a point that is free from mixing with the discharge.

Toxicity Test procedures shall be approved by EPA Environmental Services Division (Telephone Number 617-861-6700).

A portion of each whole effluent sample used for toxicity testing and a portion of the upstream dilution water shall be chemically analyzed. See page 23 of 30 for specific chemical by chemical requirements.

Raw bench data for the toxicity tests shall be submitted with the toxicity results.

Toxicity Testing - continued:

Factors to consider when selecting a consultant for toxicity testing:

- Commitment of management and staff to an effective Quality Assurance Program.
- Staff experience and education.
- Facilities - Adequate laboratory space and equipment to conduct testing.
- Data handling, record keeping, review, interpretation and reporting
- Written test protocols and quality control practices.

References

- Peltier, W., and C.I. Weber. 1985. Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms, 3rd edition, Office of Research and Development, Cincinnati, OH, EPA-600/4-85-013.
- William B. Horning, II and Cornelius I. Weber. Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. EPA/600/4-85/014

III. Toxicity Reduction Evaluation (TRE)

If any toxicity test demonstrates non compliance with the Effluent Toxicity limitations set forth in Section 14 of this permit, the permittee shall conduct a second toxicity test . This second test shall be conducted within 1 week following receipt of the test results, weather permitting, or as soon as possible thereafter. The permittee is required to make arrangements with the lab to obtain the initial results of the second test as soon as the results become available. If the second toxicity test also demonstrates non compliance with the Effluent Toxicity limitations, the permittee is required to inform EPA by phone (within 24 hours) and then follow up with a letter. The permittee shall then, according to the following schedule, conduct a Toxicity Reduction Evaluation (TRE) to determine how the permittee can achieve the Effluent Toxicity limitations. If the results of any four (4) toxicity tests during a six month period indicate noncompliance with toxicity limitations, then the permittee shall conduct a TRE.

The TRE can be used to bring a discharger into compliance with NOCEL or NOAEL limitations. The TRE should isolate the sources of the effluent toxicity, where possible identify the specific causative pollutants, and determine what pollution control options are effective in reducing effluent toxicity.

Within 30 days of the second consecutive test demonstrating noncompliance with Effluent Toxicity limitations, or within 30 days of the fourth test within a six month period demonstrating noncompliance with Effluent Toxicity limitations, whichever first occurs, the permittee shall submit a TRE study plan to EPA and DEP detailing what toxicity reduction procedures the permittee will employ. Within 270 days of submittal of the study plan, the permittee shall complete implementation of those measures identified in the study as necessary to attain compliance with the Effluent Toxicity limitations, and shall attain compliance with such limitations; except that with respect to the implementation of any measure identified in the study subject to prior approval under federal or Massachusetts statutes or regulations, Permittee shall immediately submit a full and complete application for all required prior approvals to the appropriate federal, state or local agency and shall complete the implementation of such measures as soon as possible but no later than 270 days after date of all required prior approvals.

The permittee is required to comply with all the permit conditions, limitations and monitoring requirements while performing the Toxicity Reduction Evaluation (TRE) and implementing the measures to achieve compliance.

B. MONITORING AND REPORTING

1. Reporting

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report Forms postmarked no later than the 28th day of the month following the completed reporting period. The first report is due on the 28th day of the month following the effective date of the permit.

The results of the toxicity testing shall be reported to the agency postmarked no later than 30 days after the submission of the Discharge Monitoring Report for that month.

Duplicate signed copies of these, and all other reports required herein, shall be submitted to the Director and the State at the following address:

Permits Processing Section
Compliance Branch
Water Management Division
Environmental Protection Agency
JFK Federal Building
P.O. Box 8127
Boston, MA 02203

The State Agency is:

Massachusetts Division of Water Pollution Control
Western Regional Office
4th Floor, State House West
436 Dwight Street
Springfield, MA 01103

Signed copies of all other notifications and reports required by this permit shall be submitted to the State at:

Massachusetts Division of Water Pollution Control
Regulatory Branch
1 Winter Street
Boston, Massachusetts 02108

C. STATE PERMIT CONDITIONS

This Discharge Permit is issued jointly by the U. S. Environmental Protection Agency and the Division of Water Pollution Control under Federal and State law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the Director of the Massachusetts Division of Water Pollution Control pursuant to M.G.L. Chap. 21, §43.

Each Agency shall have the independent right to enforce the terms and conditions of this Permit. Any modification, suspension or revocation of this Permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this Permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this Permit is declared, invalid, illegal or otherwise issued in violation of State law such permit shall remain in full force and effect under Federal law as an NPDES Permit issued by the U. S. Environmental Protection Agency. In the event this Permit is declared invalid, illegal or otherwise issued in violation of Federal law, this Permit shall remain in full force and effect under State law as a Permit issued by the Commonwealth of Massachusetts.

D. Schedule of Compliance

The permittee shall construction a treatment system to achieve compliance with final effluent limitations on PCB discharges from outfall 005 in accordance with the following schedule:

- a. Submit progress reports to EPA detailing progress toward completion of the treatment system for PCBs by November 1, 1988.
- b. Complete construction of the proposed PCBs treatment system by December 1, 1988.
- c. Achieve compliance with the effluent limitations for PCBs as required on page 8 of the permit by February 1, 1989.

TSS Concentration

APPENDIX E

Date	TSS (mg/l)	Yi ln TSS (mg/L)
May-11	377	5.9322
Jun-11	9.19	2.2181
Jul-11	2.06	0.7227
Aug-11	21.7	3.0773
Sep-11	16.3	2.7912
Oct-11	12.9	2.5572
Nov-11	20	2.9957
Dec-11	5.19	1.6467
Jan-12	3.9	1.3610
Feb-12	2.45	0.8961
Mar-12	12.9	2.5572
Apr-12	24.6	3.2027
May-12	22.5	3.1135
Sep-12	8.62	2.1541
Oct-12	15.3	2.7279
Dec-12	23.8	3.1697
Feb-13	35	3.5553
Mar-13	85.1	4.4438
Apr-13	97.9	4.5839
May-13	15.9	2.7663
Jun-13	7.89	2.0656
Jul-13	4.32	1.4633
Aug-13	7.1	1.9601
Sep-13	13.5	2.6027
Nov-13	12.5	2.5257
Dec-13	15.2	2.7213
Jan-14	48.2	3.8754
Feb-14	66.5	4.1972
Apr-14	7.8	2.0541
May-14	32.8	3.4904

flow - (Lognormal distribution, no ND)

Estimated Daily Maximum Effluent Concentration

k = number of daily samples = 30

u_y = Avg of Nat. Log of daily Discharge = 2.78095

s_y = Std Dev. of Nat Log of daily discharge = 1.11853

σ_y^2 = estimated variance = (SUM[($y_i - u_y$)²] / (k-1) = 1.251110029

cv(x)= Coefficient of Variation = **0.40221096**

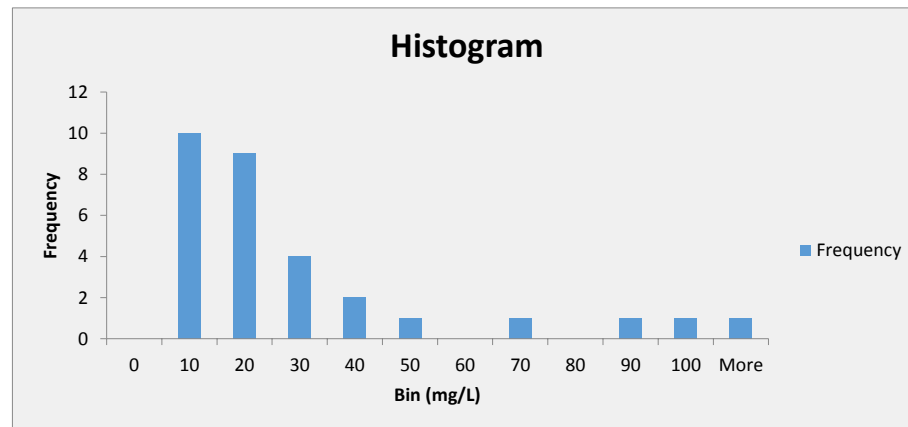
99th Percentile Daily Max Estimate = exp ($u_y + 2.326*s_y$)

Estimated Daily Max 99th percentile = 217.5994 mg/L

95th Percentile Daily Max Estimate = exp ($u_y + 1.645*s_y$)

Estimated Daily Max = 101.5891 mg/L

Bin	Frequency
0	0
10	10
20	9
30	4
40	2
50	1
60	0
70	1
80	0
90	1
100	1
100	1
More	1



**PCB Reasonable Potential Analysis
data with ND, >10 samples, lognormal distribution**

Date	PCBs* (ug/l)	ln(PCB) (ug/l)	$(y_i - u_y)^2$
1/26/2010	0.376	-0.9782	1.3899
2/26/2010	0.0414	-3.1845	1.0555
3/17/2010	0.0789	-2.5396	0.1463
4/9/2010	0.027	-3.6119	2.1165
5/14/2010	0.0723	-2.6269	0.2207
6/15/2010	0.0247	-3.7010	2.3835
7/27/2010	0.737	-0.3052	3.4297
9/30/2010	0.885	-0.1222	4.1410
10/7/2010	0.1043	-2.2605	0.0107
11/5/2010	0.154	-1.8708	0.0820
12/1/2010	0.0458	-3.0835	0.8582
3/11/2011	0.1523	-1.8819	0.0757
3/22/2011	0.0508	-2.9799	0.6769
4/2/2011	0.0639	-2.7504	0.3520
4/12/2011	Non-detect		
5/16/2011	0.1129	-2.1813	0.0006
6/23/2011	0.0888	-2.4214	0.0698
7/19/2011	0.1645	-1.8048	0.1241
8/16/2011	0.1093	-2.2137	0.0032
9/7/2011	0.406	-0.9014	1.5768
10/14/2011	0.1051	-2.2528	0.0092
11/18/2011	0.0548	-2.9041	0.5580
12/9/2011	0.3237	-1.1279	1.0592
1/13/2012	0.2037	-1.5911	0.3203
2/6/2012	0.3745	-0.9822	1.3805
3/23/2012	0.1013	-2.2897	0.0176
4/23/2012	0.1137	-2.1742	0.0003
5/9/2012	0.1426	-1.9477	0.0438
6/4/2012	0.1393	-1.9711	0.0346
9/19/2012	0.0991	-2.3116	0.0239
10/19/2012	0.1983	-1.6180	0.2907
12/18/2012	0.1326	-2.0204	0.0187
2/28/2013	0.1294	-2.0448	0.0126
3/14/2013	0.1162	-2.1524	0.0000
4/12/2013	0.0571	-2.8630	0.4982
5/24/2013	0.1812	-1.7082	0.2016
7/26/2013	0.0489	-3.0180	0.7411
8/12/2013	0.1086	-2.2201	0.0040
9/13/2013	0.0778	-2.5536	0.1572
11/1/2013	0.0456	-3.0878	0.8663
12/23/2013	0.1318	-2.0265	0.0171

APPENDIX E

PCBs- (Lognormal distribution, ND)

Daily Maximum Effluent Derivation (some measurements < detection limit)	
Detection Limit** =	0.065
u_y = Avg of Nat. Log of daily Discharge (mg/L) =	-2.15710
$S(y_i - u)^2$ =	24.96770
k = number of daily samples =	41
r = number of non-detects =	1
s_y^2 = estimated variance = $(S[(y_i - u_y)^2]) / (k-r-1)$ =	0.64020
s_y = standard deviation = square root s_y^2 =	0.80012
δ = number of nondetect values/number of samples =	0.02439
z 99th percentile= z -score $[(0.99-\delta)/(1-\delta)]$ =	2.31707
z 95th percentile= z -score $[(0.95-\delta)/(1-\delta)]$ =	1.632852606
Daily Max = $\exp(u_y + z\text{-score} * s_y)$	
99th Percentile Daily Max Estimate=	0.7385 $\mu\text{g/L}$
95th Percentile Daily Max Estimate =	0.4272 $\mu\text{g/L}$

** Detection limit here is the detection limit that resulted in the greatest number of Non Detects in the dataset

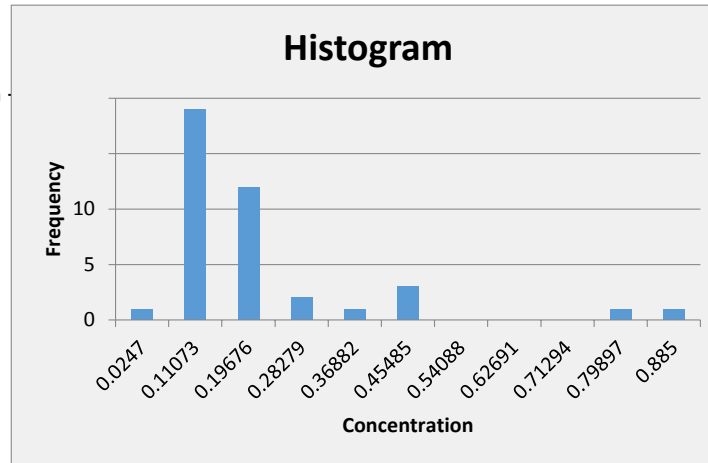
APPENDIX E

PCB HISTO

Histogram 1

max 0.885
 min 0.0247 *not including NDs
 number of | 10 *not including min bin
 bin separat 0.08603

Bin	count	
0	0.0247	1
1	0.11073	19
2	0.19676	12
3	0.28279	2
4	0.36882	1
5	0.45485	3
6	0.54088	0
7	0.62691	0
8	0.71294	0
9	0.79897	1
10	0.885	1

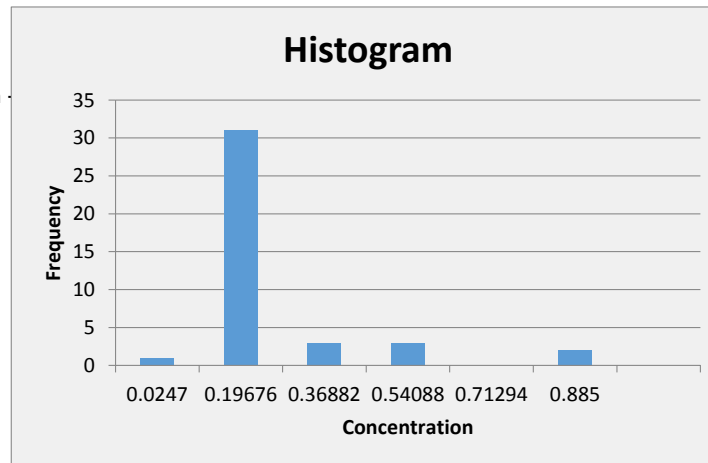


*ND values not plotted

Histogram 2

max 0.885
 min 0.0247 *not including NDs
 number of | 5 *not including min bin
 bin separat 0.17206

Bin	count	
0	0.0247	1
1	0.19676	31
2	0.36882	3
3	0.54088	3
4	0.71294	0
5	0.885	2



*ND values not plotted



**OFFICE OF THE MAYOR
DANIEL L. BIANCHI**

CITY OF PITTSFIELD, 70 ALLEN STREET, PITTSFIELD, MA 01201, PHONE: 413-499-9321

January 13, 2015

David Webster
Chief, Water Permits Branch
U.S. Environmental Protection Agency, Region I
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912

Re: Pittsfield Economic Development Authority, Pittsfield, Massachusetts
NPDES Permit Renewal Application MA0040231

Dear Mr. Webster:

We are writing to seek your guidance on recent developments with respect to the Pittsfield Economic Development Authority's ("PEDA") application for renewal of its permit under the National Pollution Discharge Elimination System ("NPDES").

Based on our review of the draft NPDES Permit Fact Sheet, PEDA is considering alternatives to assuming full responsibility for the discharge of stormwater from its outfall. These alternatives, discussed in greater detail below, include transferring responsibilities for NPDES compliance to the City of Pittsfield (the "City"), disconnecting the portion of the PEDA property known as the "Teens Complex" from the PEDA stormwater system, and/or disconnecting the City's 91-acres of stormwater discharge from the PEDA stormwater system.

As we have previously made clear, PEDA is a public entity that was created by special act of the Massachusetts Legislature for the limited purpose of redeveloping brownfields sites. PEDA acquired property from the former General Electric ("GE") facility *after* completion of the remediation on the acquired property and *after* the Massachusetts Department of Environmental Protection ("MassDEP") and the U.S. Environmental Protection Agency ("EPA") confirmed that the remediation was completed in compliance with the requirements of the Consent Decree. When the Consent Decree was drafted and PEDA was created, and even later when the property was transferred, none of the parties anticipated a future NPDES permit with requirements such as those included in the proposed permit. As a result, PEDA was not

established with sufficient capital or administrative capability to comply with the proposed permit conditions. PEDA does not have a regular source of revenue; it does not have profits; and it does not have taxing authority. PEDA has extremely limited and finite sources of revenue. Simply put, if the permit is issued as drafted, the requirements of the permit would quickly deplete PEDA's resources and put PEDA out of business. PEDA would never meet its legislated brownfields redevelopment mission.

PEDA has therefore reached the conclusion that it will not have adequate financial or administrative resources to comply with the proposed permit conditions. As you may recall, approximately two-thirds of the stormwater that discharges through PEDA's water quality basin and Outfall 001 originates off-site in City neighborhoods. Given the relatively small proportion of stormwater originating at the William Stanley Business Park, PEDA and the City are contemplating a transfer of responsibility for the stormwater system from PEDA to the City. We believe that the City has the staff, funding and capabilities to better manage the requirements under its MS4 permit.

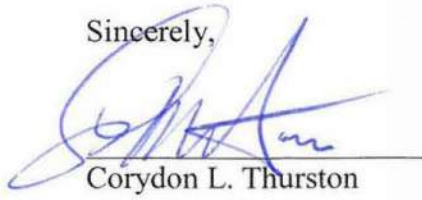
Transferring the permit to the City would free up time and funding for PEDA to focus on changes to the stormwater system on the PEDA property. PEDA is exploring the option of completely disconnecting the Teens Complex from the stormwater system and designing a low impact system that allows the water to infiltrate into the ground, or to be reused on-site, or other options currently available for brownfields sites. However, this proposed change would require balancing between what is allowable under the Environmental Restrictions and Easements and the environmental benefits of managing the stormwater on-site.

We are also exploring an option for the City to disconnect its 91- acres of stormwater discharge from the PEDA stormwater system. This reduced flow, combined with reductions achieved by disconnecting the Teens Complex stormwater flow will allow PEDA to contain and manage stormwater flow on-site and potentially eliminate the need for any discharge into Silver Lake except under extreme conditions. We assume that if the City takes this step, the City's stormwater from the 91-acres would merge with the existing Fourth Street discharge into Silver Lake. We note that since this stormwater would not run through the William Stanley Business Park, it would not be impacted by residual contamination on the PEDA property and could be managed as ordinary municipal stormwater under the City's MS4 permit.

At this point in time we believe that the best alternative is to transfer the NPDES permit for Outfall 001 from PEDA to the City, to be permitted under the City's MS4 general permit. We are cognizant of the time and effort that you and your staff have invested in this the permitting process thus far and would greatly appreciate your guidance and advice in developing the alternatives discussed in this letter.

We will follow up with you in later in January to update you on the progress of the discussions between PEDA and the City. If appropriate, we also propose a meeting or conference call with EPA to obtain additional information about these alternative options.

Sincerely,

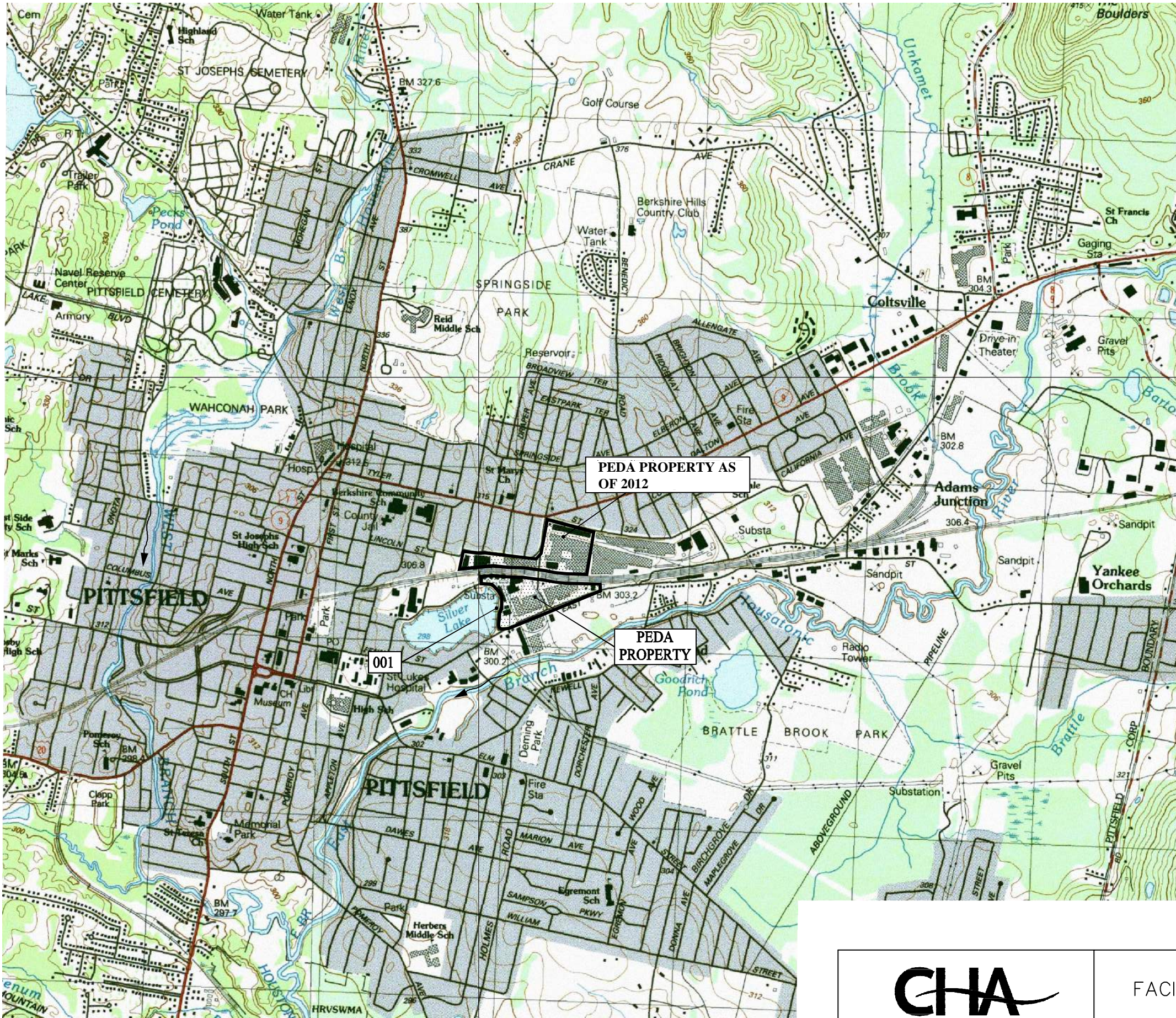


Corydon L. Thurston



Mayor Daniel Bianchi

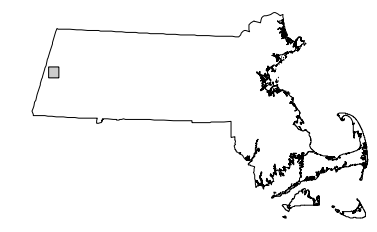
cc: Curt Spaulding, USEPA (*via electronic mail and first class mail*)
(*via electronic mail only*)
Robin Johnson, USEPA
Dean Tagliaferro, USEPA
Matt Hoagland, USEPA
Catherine Vakalopoulos, MADEP
Michael Gorski, MADEP



LEGEND:

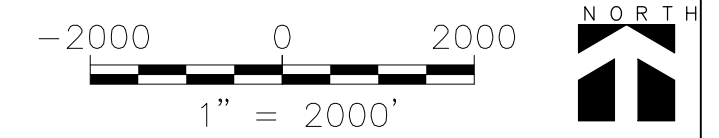
- 001 APPROXIMATE LOCATION OF DRAINAGE DISCHARGE POINT
- DIRECTION OF HOUSATONIC RIVER FLOW

AREA LOCATION



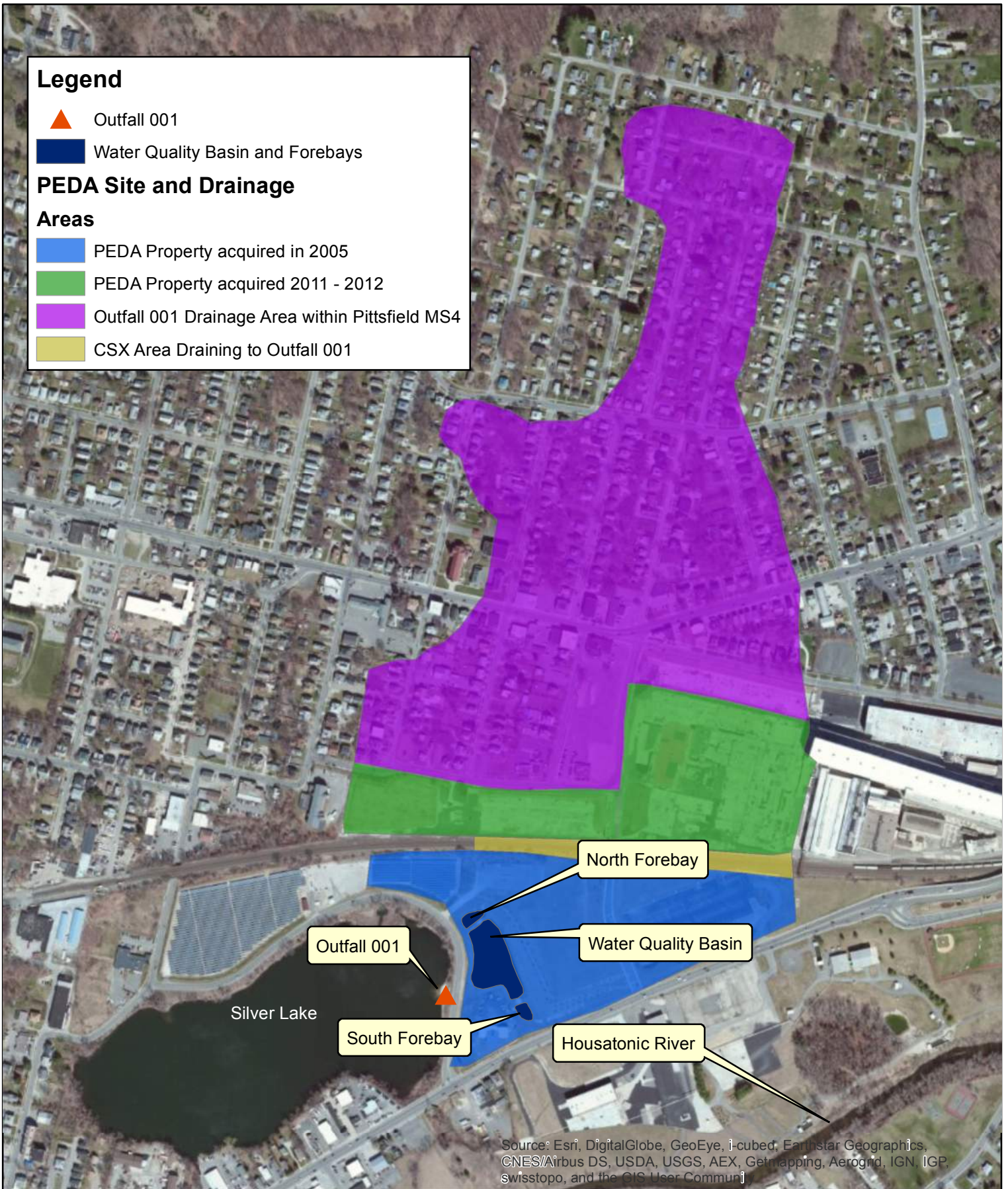
REFERENCE:

BASE MAP SOURCE USGS QUADS, PITTSFIELD, MA



FORM 1 PART XI
 FACILITY LOCATION & APPROXIMATE
 OUTFALL LOCATION MAP
 PITTSFIELD ECONOMIC DEVELOPMENT AUTHORITY
 NPDES PERMIT APPLICATION

PROJECT NO.
 13772
 DATE: 10/18/10
 FIGURE 1







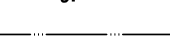

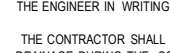
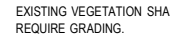
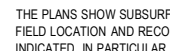


1 inch = 600 feet



Figure 2 - PEDA Site Map
 NPDES Permit No. MA0040231
 Permit Issuance

LEGEND:

-  BUILDING DEMOLITION BARRIER AREA
-  NATURAL STONE OR RIP RAP
-  RESTRICTED SOIL AREA ANY DEPTH
-  PROPOSED CATCH BASIN
-  PROPOSED STORM DRAIN MANHOLE
-  SPOT GRADE
-  EXISTING GRADE
-  PROPOSED MINOR GRADE
-  PROPOSED MAJOR GRADE
-  PROPOSED STORM DRAIN
-  SILVER LAKE BANK OUTER LIMIT

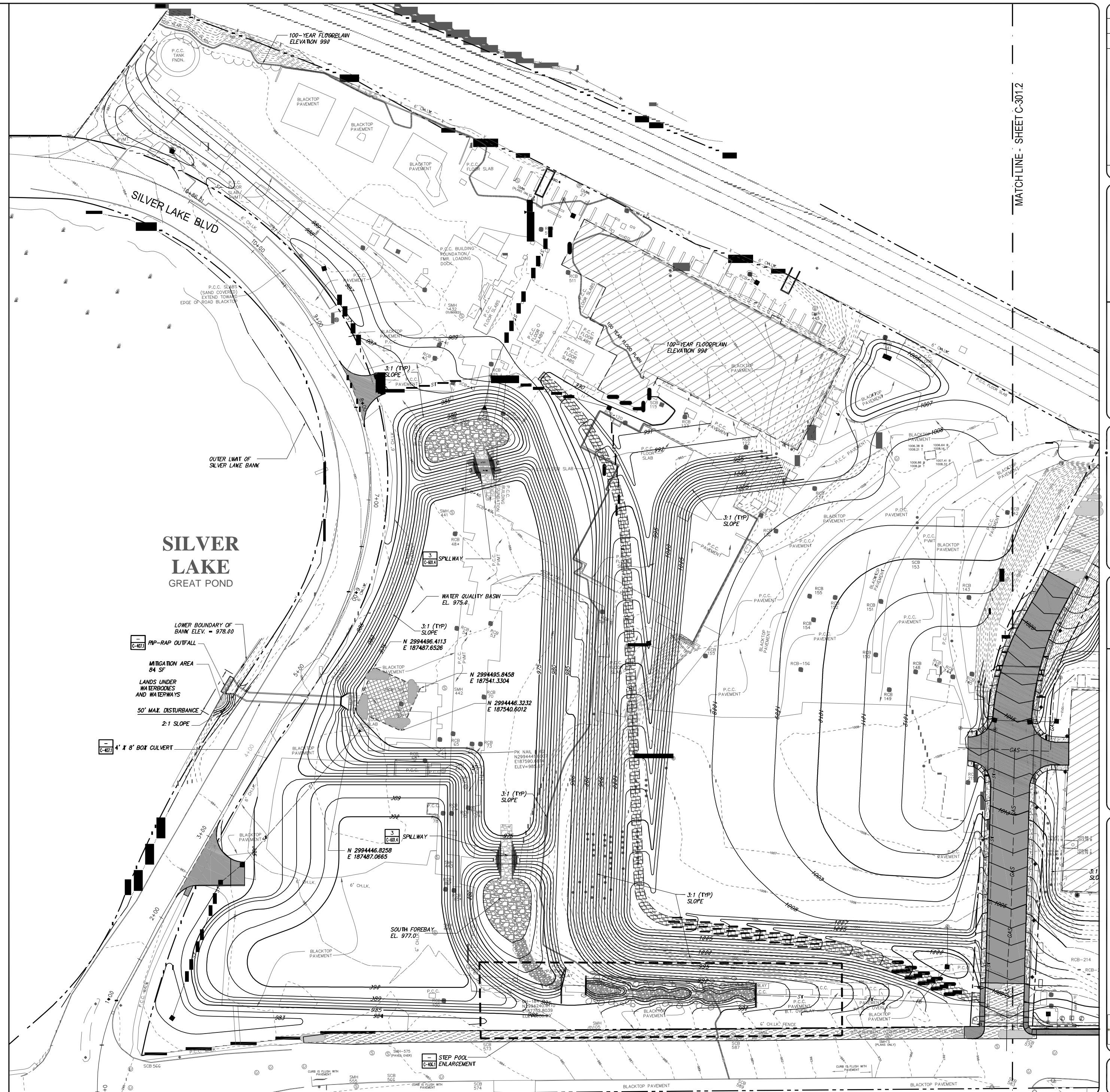
NOTES:

1. PROPOSED GRADES SHALL BLEND SMOOTHLY WITH EXISTING ELEVATIONS.
2. THE CONTRACTOR SHALL STAKE OUT ALL GRADES IN THE FIELD PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES. THE ENGINEER SHALL APPROVE STAKED GRADES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING AND THE MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF WORK. THE CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE PATTERNS THROUGHOUT THE PERIOD OF CONSTRUCTION.
4. EXISTING VEGETATION SHALL REMAIN UNDISTURBED WITHIN ALL AREAS OF SITE WHICH DO NOT REQUIRE GRADING.
5. ALL DISTURBED AREAS SHALL BE SEEDED AND SHALL BE DISCED, HARROWED, AND FORMED TO PROVIDE SMOOTH TRANSITIONS WITH PROPOSED IMPROVEMENTS. PRIOR TO PLACEMENT OF SEED.
6. THE PLANS SHOW SUBSURFACE STRUCTURES, ABOVE-GROUND STRUCTURES AND/OR UTILITIES FROM FIELD LOCATION AND RECORD MAPPING. EXACT LOCATION OF WHICH MAY VARY FROM THE LOCATIONS INDICATED. IN PARTICULAR, THE CONTRACTOR IS WARNED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SUCH PIPELINES, SUBSURFACE STRUCTURES AND/OR UTILITIES IN THE AREA MAY BE DIFFERENT FROM THAT SHOWN OR MAY NOT BE SHOWN, AND IT SHALL BE HIS RESPONSIBILITY TO PROCEED WITH GREAT CARE IN EXECUTING ANY WORK. 72 HOURS BEFORE YOU DIG OR DRILL, CALL DIG SAFE @ 1-888-DIG-SAFE.
7. REFER TO C-402.1, C-402.2 AND C-402.3 FOR DRAINAGE PLANS.

SOIL NOTES:

1. REFER TO SECTION 02080 SOIL AND WASTE MANAGEMENT FOR SOIL RESTRICTIONS AND CUT/FILL REQUIREMENTS.
2. CUT FROM 0'-6" DEEP (EXCEPT HATCHED AREA) SHALL BE USED AS FILL ANY DEPTH AT ANY LOCATION.
3. CUT > 6" SHALL BE PLACED AS FILL IN ACCORDANCE WITH SECTION 02080 SOIL AND WASTE MANAGEMENT.
4. CUT WITHIN SILVER LAKE BANK SHALL BE PLACED AS FILL IN ACCORDANCE WITH SECTION 02080 SOIL AND WASTE MANAGEMENT.

Figure 3
2008 PEDA Grading and Drainage Plan



File: A:\13772 - 1200 - WILLIAM STANLEY - CONTRACT 2\ACAD\13772_C2_301-1-2.DWG
Date: 8/1/2008 12:05:05 PM
User: jacobson, jacobson

Scale in feet
0 40 80

No.	Submitted / Revision	App'd	By	Date
1	BID DOCUMENT - NOT FOR CONSTRUCTION	DPA	DPA/B	08



SASAKI
Interdisciplinary Design
64 Pleasant Street, Woburn, Massachusetts 02172 USA

CLIA © 2005
CLOUGH HARBOUR & ASSOCIATES LLP
11 Wilens Circle, P.O. Box 3509, Albany, NY 12205
Main: (518) 434-4500 • www.cloughharbour.com

Designed: DPA
Drawn: MVT
Checked: MLR

WILLIAM STANLEY
BUSINESS PARK OF THE BERKSHIRES
South State Park - Contract No. 2
GRADING & DRAINAGE PLAN - WEST

Date: 8/01/08
Project No: 13772
Scale: AS SHOWN
C-301.1

MASSACHUSETTS DEPARTMENT OF
ENVIRONMENTAL PROTECTION
COMMONWEALTH OF MASSACHUSETTS
1 WINTER STREET
BOSTON, MASSACHUSETTS 02108

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY – REGION 1
OFFICE OF ECOSYSTEM PROTECTION
5 POST OFFICE SQUARE
BOSTON, MASSACHUSETTS 02109

JOINT PUBLIC NOTICE OF COMMENT PERIOD AND OF A PUBLIC HEARING
PERTAINING TO THE ISSUANCE OF A DRAFT NATIONAL POLLUTANT DISCHARGE
ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE INTO WATERS OF THE
UNITED STATES UNDER SECTIONS 301 AND 402 OF THE CLEAN WATER ACT, AS
AMENDED, AND SECTIONS 27 AND 43 OF THE MASSACHUSETTS CLEAN WATERS
ACT, AS AMENDED, AND REQUEST FOR STATE CERTIFICATION UNDER SECTION
401 OF THE CLEAN WATER ACT.

PUBLIC NOTICE START AND END DATES: April 8, 2015 – June 6, 2015

PERMIT NUMBER: MA0040231

PUBLIC NOTICE NUMBER: MA-012-15

NAME AND MAILING ADDRESS OF APPLICANT:

Pittsfield Economic Development Authority
81 Kellogg Street
Pittsfield, Massachusetts 01201

NAME AND ADDRESS OF THE FACILITY WHERE DISCHARGE OCCURS:

William Stanley Business Park of the Berkshires
Generally bounded by East Street,
Silver Lake Boulevard, Kellogg Street, and Tyler Street
Pittsfield, Massachusetts 01201

RECEIVING WATER: Silver Lake (Class B)

The U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) have cooperated in the development of a draft permit for the Pittsfield Economic Development Authority, which discharges treated stormwater and contaminated groundwater. The effluent limits and permit conditions imposed have been drafted to assure compliance with the Clean Water Act, 33 U.S.C. sections 1251 et seq., the Massachusetts Clean Waters Act, G.L. c. 21, §§ 26-53, 314 CMR 3.00, and State Surface Water Quality Standards at 314 CMR 4.00. EPA has requested that the State certify this draft permit pursuant to Section 401 of the Clean Water Act and expects that the draft permit will be certified.

INFORMATION ABOUT THE DRAFT PERMIT:

The draft permit and explanatory fact sheet may be obtained at no cost at http://www.epa.gov/region1/npdes/draft_permits_listing_ma.html or by contacting:

Robin L. Johnson
U.S. Environmental Protection Agency – Region 1
5 Post Office Square, Suite 100 (OEP06-1)
Boston, MA 02109-3912
Telephone: (617) 918-1045

The administrative record containing all documents relating to this draft permit including all data submitted by the applicant may be inspected at the EPA Boston office mentioned above between 9:00 a.m. and 5:00 p.m., Monday through Friday, except holidays.

PUBLIC HEARING:

The Regional Administrator has determined, pursuant to 40 C.F.R. Section 124.2, that a significant degree of public interest exists in this proposed permit and that a public hearing should be held to consider this draft permit.

A public hearing and meeting (information session) will be held on the following date and time.

DATE: Tuesday, May 19, 2015

MEETING TIME: 6:30pm – 7:15pm

HEARING TIME: 7:30pm

LOCATION: EPA Pittsfield Field Office
(yellow office building on the corner of East and Lyman Streets)
10 Lyman Street
Pittsfield, MA 01201

PUBLIC COMMENT AND REQUEST FOR PUBLIC HEARING:

All persons, including applicants, who believe any condition of this draft permit is inappropriate, must raise all issues and submit all available arguments and all supporting material for their arguments in full by June 6, 2015, to the address listed above. In reaching a final decision on this draft permit, the Regional Administrator will respond to all significant comments and make the responses available to the public at EPA's Boston office.

FINAL PERMIT DECISION:

Following the close of the comment period, and after the public hearing, the Regional Administrator will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice.

DAVID FERRIS, DIRECTOR
MASSACHUSETTS WASTEWATER
MANAGEMENT PROGRAM
MASSACHUSETTS DEPARTMENT OF
ENVIRONMENTAL PROTECTION

KEN MORAFF, DIRECTOR
OFFICE OF ECOSYSTEM PROTECTION
EPA-REGION 1

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

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

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

This permit becomes effective on **September 29, 2021**. This permit and the authorization to discharge shall expire at 11:59 pm eastern time, **February 28, 2026**.

Signed and issued this 29th day of September 2021

KENNETH MORAFF
Kenneth Moraff,
Director, Water Division, EPA Region 1.

Digitally signed by
KENNETH MORAFF
Date: 2021.09.29
09:47:51 -04'00'

Signed and issued this 29th day of September 2021

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

Digitally signed by CHARLES MAGUIRE
DN: c=US, o=U.S. Government,
ou=Environmental Protection Agency,
cn=CHARLES MAGUIRE,
0.9.2342.19200300.100.1.1=#6001003650036
Date: 2021.09.29 13:25:19 -05'00'

Signed and issued this 29th day of September 2021

Laureano, Javier
Javier Laureano,
Director, Water Division, EPA Region 2.

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Laureano, Javier
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Signed and issued this 29th day of September 2021

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

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JEFFERY ROBICHAUD
Date: 2021.09.29
09:31:41 -05'00'

Signed and issued this 29th day of September 2021

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

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GUERRERO PEREZ
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-04'00'

Signed and issued this 29th day of September 2021

HUMBERTO GARCIA
Humberto Garcia,
Acting Director, Water Division, EPA Region 8.

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HUMBERTO GARCIA
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Signed and issued this 29th day of September 2021

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

Digitally signed by
CATHERINE LIBERTZ
Date: 2021.09.29
15:36:42 -04'00'

Signed and issued this 29th day of September 2021

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

Digitally signed by
TOMAS TORRES
Date: 2021.09.29
13:07:02 -07'00'

Signed and issued this 29th day of September 2021

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


Digitally signed by
JEANEANNE GETTLE
Date: 2021.09.29
11:04:48 -04'00'

Signed and issued this 29th day of September 2021

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

Digitally signed by
DANIEL OPALSKI
Date: 2021.09.29
09:39:16 -07'00'

Signed and issued this 29th day of September 2021


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

Digitally signed by
FONG
Date: 2021.09.29
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1 **How to Obtain Coverage Under the 2021 MSGP**

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

1.1 **Eligibility Conditions**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- a. For new dischargers and new sources to Tier 2 or Tier 2.5 waters, your discharge must not lower the water quality of the applicable water. See a list of Tier 2 and Tier 2.5 waters in Appendix L.
- b. For new dischargers and new sources to waters designed by a state or tribe as Tier 3 waters³ (i.e., outstanding national resource waters) for antidegradation purposes under 40 CFR 131.12(a)(3), you are not eligible under this permit and you must apply for an individual permit. See a list of Tier 3 waters in Appendix L.

1.1.7 Eligibility for Discharges to a Federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Site. If you discharge to a federal CERCLA Site listed in Appendix P, you must notify the EPA Region 10 Office when submitting your NOI, and the EPA Region 10 Office must determine that you are eligible for permit coverage. In determining eligibility for coverage under this Part, the EPA Region 10 Office may evaluate whether you are implementing or plan to implement adequate controls and/or procedures to ensure that your discharge will not lead to recontamination of aquatic media at the CERCLA Site (i.e., your stormwater discharge will be controlled as necessary such that the receiving water of the United States will meet an applicable water quality standard). If it is determined that your facility discharges to a CERCLA Site listed in Appendix P after you have obtained coverage under this permit, you must contact the EPA Region 10 Office and ensure that you either have implemented or will implement adequate controls and/or procedures to ensure that your discharges will not lead to recontamination of aquatic media at the

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

CERCLA Site such that your stormwater discharge will be controlled as necessary such that the receiving water of the United States will meet an applicable water quality standard.

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

1.2 **Types of Discharges Authorized Under the MSGP**⁴

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

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

Table 1-1. Stormwater-Specific Effluent Limitations Guidelines

Regulated Discharge	40 CFR Section	MSGP Sector	New Source Performance Standard (NSPS)	New Source Date
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	Part 429, Subpart J	A	Yes	1/26/81
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	Part 418, Subpart A	C	Yes	4/8/74
Runoff from asphalt emulsion facilities	Part 443, Subpart A	D	Yes	7/28/75
Runoff from material storage piles at cement manufacturing facilities	Part 411, Subpart C	E	Yes	2/20/74
Mine dewatering discharges at crushed stone, construction sand and gravel, or industrial sand mining facilities	Part 436, Subparts B, C, and D	J	No	N/A
Runoff from hazardous waste and non-hazardous waste landfills	Part 445, Subparts A and B	K, L	Yes	2/2/00

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

Regulated Discharge	40 CFR Section	MSGP Sector	New Source Performance Standard (NSPS)	New Source Date
Runoff from coal storage piles at steam electric generating facilities	Part 423	O	Yes	11/19/82 (10/8/74) ¹
Runoff containing urea from airfield pavement deicing at existing and new primary airports with 1,000 or more annual non-propeller aircraft departures	Part 449	S	Yes	6/15/1

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

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

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

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

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

1.2.2.2 Additional Authorized Non-Stormwater Discharge for Sector A Facilities. Discharges from the spray down of lumber and wood product storage yards where no chemical additives are used in the spray-down waters and no chemicals are applied to the wood during storage, provided the non-stormwater component of the discharge is in compliance with the non-numeric effluent limits requirements in Part 2.1.2.

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

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

Once the earth-disturbing activities conducted prior to active mining activities have ceased, the only authorized non-stormwater discharges for Sectors G, H, and J are those listed in Part 1.2.2.1.

1.3 Obtaining Authorization to Discharge

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

1.3.2 How to Submit Your NOI to Get Permit Coverage. To be covered under this permit, you must use EPA's NPDES eReporting Tool for the MSGP (NeT-MSGP) to electronically prepare and submit to EPA a complete and accurate NOI by the deadline applicable to your facility presented in Table 1-2. The NOI certifies to EPA that you are eligible for coverage according to Part 1.1 and provides information on your industrial activities and related discharges. Per Part 7.1, you must submit your NOI electronically via NeT-MSGP, unless the applicable EPA Regional Office grants you a waiver from electronic reporting, in which case you may use the paper NOI form in Appendix G. To access

NeT-MSGP, go to <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities#accessingmsgp>

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

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

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

Category of Facility/Operator	NOI Submission Deadline	Discharge Authorization Date ^{1, 2}
<p>Existing facility without MSGP coverage. Operators of industrial activities that commenced discharging prior to March 1, 2021, but whose stormwater discharges were not covered under the 2015 MSGP or another NPDES permit and have not been operating consistent with EPA's No Action Assurance for EPA's NPDES MSGP.</p>	<p>Immediately; your stormwater discharges are currently unpermitted.¹</p>	

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

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

- 1.3.4 Modifying your NOI.** If after submitting your NOI, you need to correct or update any fields, you may do so by submitting a "Change NOI" form using NeT-MSGP. Per Part 7.2.1, you must submit your Change NOI electronically via NeT-MSGP, unless the EPA Regional Office grants you a waiver from electronic reporting, in which case you may use the suggested format for the paper Change NOI form.
- 1.3.4.1** For an existing operator, if any of the information supplied on the NOI changes, you must submit a Change NOI form within thirty (30) calendar days after the change occurs.
- 1.3.4.2** At a facility where there is a transfer in operator or a new operator takes over operational control at an existing facility, the new operator must submit a new NOI no later than thirty (30) calendar days after a change in operators. The previous operator must submit a Notice of Termination (NOT) no later than thirty (30) calendar days after MSGP coverage becomes active for the new operator, as specified in Part 1.4.
- 1.3.5 Requirement to Post a Sign of your Permit Coverage.** You must post a sign or other notice of your permit coverage at a safe, publicly accessible location in close proximity to your facility. Public signage is not required where other laws or local ordinances prohibit such signage, in which case you must document in your SWPPP a brief explanation for why you cannot post a sign and a reference to the law or ordinance. You must use a font large enough to be readily viewed from a public right-of-way and perform periodic maintenance of the sign to ensure that it remains legible, visible, and factually correct. At minimum, the sign must include:
- 1.3.5.1** The following statement: "[Name of facility] is permitted for industrial stormwater discharges under the U.S. EPA's Multi-Sector General Permit (MSGP)";
- 1.3.5.2** Your NPDES ID number;
- 1.3.5.3** A contact phone number for obtaining additional facility information;
- 1.3.5.4** **One** of the following:
- a.** The Uniform Resource Locator (URL) for the SWPPP (if available), and the following statement: "To report observed indicators of stormwater pollution, contact [optional: include facility point of contact and] EPA at: [include the applicable

MSGP Regional Office contact information found at <https://www.epa.gov/npdes/contact-us-stormwater#regional>]; or

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

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

1.3.6.1 You terminate permit coverage by submitting a Notice of Termination (NOT) per Part 1.4; or

1.3.6.2 You receive coverage under a different NPDES permit or a reissued or replacement version of this permit after it expires on February 28, 2026; or

1.3.6.3 You fail to submit an NOI for coverage under a reissued or replacement version of this permit before the required deadline.

1.3.7 Continuation of Coverage for Existing Operators After the Permit Expires

1.3.7.1 Note that if the 2021 MSGP is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with section 558(c) of the Administrative Procedure Act (see 40 CFR 122.6) and remain in force and effect for operators that were covered prior to its expiration. All operators authorized to discharge prior to the expiration date of the 2021 MSGP will automatically remain covered under the 2021 MSGP until the earliest of:

- a. The date the operator is authorized for coverage under a new version of the MSGP following the timely submittal of a complete and accurate NOI. Note that if a timely NOI for coverage under the reissued or replacement permit is not submitted, coverage will terminate on the date that the NOI was due; or
- b. The date of the submittal of a Notice of Termination; or
- c. Issuance of an individual permit for the facility's discharge(s); or
- d. A final permit decision by EPA not to reissue the MSGP, at which time EPA will identify a reasonable time period for covered operators to seek coverage under an alternative general permit or an individual permit. Coverage under the 2021 MSGP will terminate at the end of this time period.

1.3.7.2 EPA reserves the right to modify or revoke and reissue the 2021 MSGP under 40 CFR 122.62 and 63, in which case operators will be notified of any relevant changes or procedures to which they may be subject. If EPA fails to issue another general permit prior to the expiration of a previous one, EPA does not have the authority to provide coverage to industrial operators not already covered under that prior general permit. If the five-year expiration date for the 2021 MSGP has passed and a new MSGP has not been reissued, new operators seeking discharge authorization should contact EPA regarding the options available, such as applying for individual permit coverage.

1.3.8 Coverage Under Alternative Permits. EPA may require you to apply for and/or obtain authorization to discharge under an alternative permit, i.e., either an individual NPDES

permit or an alternative NPDES general permit, in accordance with 40 CFR 122.64 and 124.5. If EPA requires you to apply for an alternative permit, the Agency will notify you in writing that a permit application or NOI is required. This notification will include a brief statement of the reasons for this decision and will contain alternative permit application or NOI requirements, including deadlines for completing your application or NOI.

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

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

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

1.4 Terminating Permit Coverage

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

Your authorization to discharge under this permit terminates at midnight of the day that you are notified that your complete NOT has been processed. If you submit a NOT without meeting one or more of the conditions in Part 1.4.2 then your NOT is not valid. Until you terminate permit coverage, you must comply with all conditions and effluent limitations in the permit.

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

- 1.4.2.1 A new owner or operator has received authorization to discharge under this permit; or
- 1.4.2.2 You have ceased operations at the facility and/or there are not or no longer will be discharges of stormwater associated with industrial activity from the facility, and you have already implemented necessary sediment and erosion controls per Part 2.1.2.5; or
- 1.4.2.3 You are a Sector G, H, or J facility and you have met the applicable termination requirements; or
- 1.4.2.4 You obtained coverage under an individual or alternative general permit for all discharges required to be covered by an NPDES permit, unless EPA terminates your coverage for you per Part 1.3.8.

1.5 **Conditional Exclusion for No Exposure**

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

You must use EPA's NPDES eReporting Tool for the MSGP (NeT-MSGP) to electronically prepare and submit to EPA a complete and accurate NEC. Per Part 7.2.1, you must submit your NEC electronically via NeT-MSGP, unless the applicable EPA Regional Office grants you a waiver from electronic reporting, in which case you may use the paper NEC form in Appendix K. To access NeT-MSGP, go to <https://cdxnodengn.epa.gov/net-msgp/action/login>

1.6 **Permit Compliance**

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

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

1.7 **Severability**

Invalidation of a portion of this permit does not necessarily render the whole permit invalid. EPA's intent is that the permit is to remain in effect to the extent possible; in the event that any part of this permit is invalidated, EPA will advise the regulated community as to the effect of such invalidation.

2. **Control Measures and Effluent Limits**

In the technology-based limits included in Parts 2.1 and 8, the term “minimize” means to reduce and/or eliminate to the extent achievable using stormwater control

measures (SCMs) (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practice. The term "infeasible" means not technologically possible or not economically practicable and achievable in light of best industry practices. EPA notes that it does not intend for any permit requirement to conflict with state water rights law.

2.1 Stormwater Control Measures

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

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

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

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

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

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

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

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

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

considerations made to select and design control measures at your facility to minimize pollutants discharged via stormwater.

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

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

- 2.1.2.1 Minimize Exposure.** You must minimize the exposure of manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) to rain, snow, snowmelt, and stormwater in order to minimize pollutant discharges by either locating these industrial materials and activities inside or protecting them with storm resistant coverings. Unless infeasible, you must also:

- a. Use grading, berming or curbing to prevent discharges of contaminated flows and divert run-on away from these areas;
- b. Locate materials, equipment, and activities so that potential leaks and spills are contained or able to be contained or diverted before discharge;
- c. Store leaky vehicles and equipment indoors;
- d. Perform all vehicle and/or equipment cleaning operations indoors, under cover, or in bermed areas that prevent discharges and run-on and also that capture any overspray; and
- e. Drain fluids from equipment and vehicles that will be decommissioned, and, for any equipment and vehicles that will remain unused for extended periods of time, inspect at least monthly for leaks.

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

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

- a. Sweep or vacuum at regular intervals or, alternatively, wash down the area and collect and/or treat, and properly dispose of the washdown water;

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

- b. Store materials in appropriate containers;
- c. Keep all dumpster lids closed when not in use. For dumpsters and roll off boxes that do not have lids and could leak, ensure that discharges have a control (e.g., secondary containment, treatment). Consistent with Part 1.2.2 above, this permit does not authorize dry weather discharges from dumpsters or roll off boxes;*
- d. Minimize the potential for waste, garbage and floatable debris to be discharged by keeping exposed areas free of such materials, or by intercepting them before they are discharged.
- e. Plastic Materials Requirements: Facilities that handle pre-production plastic must implement control measures to eliminate discharges of plastic in stormwater.⁹ Examples of plastic material required to be addressed as stormwater pollutants include plastic resin pellets, powders, flakes, additives, regrind, scrap, waste and recycling.

2.1.2.3 **Maintenance.**

- a. **Maintenance Activities.** You must maintain all control measures that are used to achieve the effluent limits in this permit in effective operating condition, as well as all industrial equipment and systems, in order to minimize pollutant discharges. This includes:
 - ii. Performing inspections and preventive maintenance of stormwater drainage, source controls, treatment systems, and plant equipment and systems that could fail and result in discharges of pollutants via stormwater.
 - iii. Maintaining non-structural control measures (e.g., keep spill response supplies available, personnel appropriately trained).
 - iv. Inspecting and maintaining baghouses at least quarterly to prevent the escape of dust from the system and immediately removing any accumulated dust at the base of the exterior baghouse.*
 - v. Cleaning catch basins when the depth of debris reaches two-thirds (2/3) of the sump depth, or in line with manufacturer specifications, whichever is lower, and keeping the debris surface at least six inches below the lowest outlet pipe.*
- b. **Maintenance Deadlines.**
 - ii. If you find that your control measures need routine maintenance, you must conduct the necessary maintenance immediately in order to minimize pollutant discharges.

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

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

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

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

- a. Clean up spills and leaks promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants;
- b. Use drip pans and absorbents if leaky vehicles and/or equipment are stored outdoors;
- c. Use spill/overflow protection equipment;
- d. Plainly label containers (e.g., "Used Oil," "Spent Solvents," "Fertilizers and Pesticides") that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur*;
- e. Implement procedures for material storage and handling, including the use of secondary containment and barriers between material storage and traffic areas, or a similarly effective means designed to prevent the discharge of pollutants from these areas;
- f. Develop training on the procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases. As appropriate, execute such procedures as soon as possible;

- g. Keep spill kits onsite, located near areas where spills may occur or where a rapid response can be made; and
- h. Notify appropriate facility personnel when a leak, spill, or other release occurs.

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

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

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

2.1.2.7 Salt Storage Piles or Piles Containing Salt. You must enclose or cover storage piles of salt, or piles containing salt, used for deicing or other commercial or industrial purposes, including maintenance of paved surfaces, in order to minimize pollutant discharges. You must implement appropriate measures (e.g., good housekeeping, diversions, containment) to minimize exposure resulting from adding to or removing materials from the pile. Piles do not need to be enclosed or covered pursuant to this permit if stormwater from the piles is not discharged or if discharges from the piles are authorized under another NPDES permit.

2.1.2.8 Employee Training.

- a. **Types of Personnel Who Require Training.** You must train all employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to comply with this permit (e.g., inspectors, maintenance personnel), including all members of your stormwater pollution prevention team. You must ensure the following personnel understand the requirements of this permit and their specific responsibilities with respect to those requirements:

- i. Personnel who are responsible for the design, installation, maintenance, and/or repair of controls (including pollution prevention measures);
 - ii. Personnel responsible for the storage and handling of chemicals and materials that could become pollutants discharged via stormwater;
 - iii. Personnel who are responsible for conducting and documenting inspections and monitoring as required in Parts 3 and 4; and
 - iv. Personnel who are responsible for taking and documenting corrective actions as required in Part 5.
- b. **Areas of Required Training.** Personnel must be trained in at least the following if related to the scope of their job duties (e.g., only personnel responsible for conducting inspections need to understand how to conduct inspections):
- i. An overview of what is in the SWPPP;
 - ii. Spill response procedures, good housekeeping, maintenance requirements, and material management practices;
 - iii. The location of all the controls required by this permit, and how they are to be maintained;
 - iv. The proper procedures to follow with respect to the permit's pollution prevention requirements; and
 - v. When and how to conduct inspections, record applicable findings, and take corrective actions; and
 - vi. The facility's emergency procedures, if applicable per Part 2.1.1.8.
- 2.1.2.9 **Non-Stormwater Discharges.** You must evaluate for the presence of non-stormwater discharges. You must eliminate any non-stormwater discharges not explicitly authorized in Part 1.2.2 or covered by another NPDES permit, including vehicle and equipment/tank wash water (except for those authorized in Part 1.2.2.3 for Sectors G, H, and J). If not covered under a separate NPDES permit, wastewater, wash water and any other unauthorized non-stormwater must be discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements, or otherwise disposed of appropriately.
- 2.1.2.10 **Dust Generation and Vehicle Tracking of Industrial Materials.** You must minimize generation of dust and off-site tracking of raw, final, or waste materials in order to minimize pollutants discharged via stormwater.
- 2.1.3 **Numeric Effluent Limitations Based on Effluent Limitations Guidelines.** If you are in an industrial category subject to one of the effluent limitations guidelines identified in Table 4-3 (see Part 4.2.3.1), you must meet the effluent limits referenced in Table 2-1 below:

Table 2-1. Applicable Effluent Limitations Guidelines

Regulated Activity	40 CFR Part/Subpart	Effluent Limit
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	Part 429, Subpart I	See Part 8.A.8

Regulated Activity	40 CFR Part/Subpart	Effluent Limit
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	Part 418, Subpart A	See Part 8.C.5
Runoff from asphalt emulsion facilities	Part 443, Subpart A	See Part 8.D.5
Runoff from material storage piles at cement manufacturing facilities	Part 411, Subpart C	See Part 8.E.6
Mine dewatering discharges at crushed stone, construction sand and gravel, or industrial sand mining facilities	Part 436, Subparts B, C, or D	See Part 8.J.10
Runoff from hazardous waste landfills	Part 445, Subpart A	See Part 8.K.7
Runoff from non-hazardous waste landfills	Part 445, Subpart B	See Part 8.L.11
Runoff from coal storage piles at steam electric generating facilities	Part 423	See Part 8.O.8
Runoff containing urea from airfield pavement deicing at existing and new primary airports with 1,000 or more annual non-propeller aircraft departures	Part 449	See Part 8.S.9

2.2 Water Quality-Based Effluent Limitations

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

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

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

2.2.2 Discharges to Water Quality-Impaired Waters. You are considered to discharge to an impaired water if the first water of the United States to which your discharge is identified by a state, tribe or EPA as not meeting an applicable water quality standard, and:

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

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

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

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

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

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

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

If your eligibility under either Part 1.1.4, Part 1.1.5, and/or Part 1.1.7 was made possible through your, or another operator's, agreement to undertake additional measures, you must comply with all such measures to maintain eligibility under the MSGP. Note that if at any time you become aware, or EPA determines, that your discharges and/or discharge-related activities have the potential to adversely affect listed species and/or critical habitat, have an effect on historic properties, or that your facility discharges to a CERCLA Site listed in Appendix P after you have obtained coverage under this permit, EPA may inform you of the need to implement additional measures on a site-specific basis to meet the effluent limits in this permit, or require you to obtain coverage under an individual permit.

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

3. **Inspections**

3.1 **Routine Facility Inspections**

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

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

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

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

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

3.1.2.4 Discharge points; and

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

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

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

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

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

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

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

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

3.1.3.7 Control measures needing replacement, maintenance or repair; and

3.1.3.8 During an inspection occurring during a stormwater event or stormwater discharge, you must observe control measures implemented to comply with effluent limits to ensure they are functioning correctly. You must also observe discharge points, as defined in Appendix A, during this inspection. If such discharge locations are inaccessible, you must inspect nearby downstream locations.

3.1.4 **Inspection Frequency.** The qualified personnel must conduct inspections at least quarterly (i.e., once each calendar quarter), or in some instances more frequently

(e.g., monthly). Increased frequency may be appropriate for some types of equipment, processes and stormwater control measures, or areas of the facility with significant activities and materials exposed to stormwater. At least once each calendar year, the routine inspection must be conducted during a period when a stormwater discharge is occurring.

- 3.1.5 Exceptions to Routine Facility Inspections for Inactive and Unstaffed Facilities.** The requirement to conduct facility inspections on a routine basis does not apply at a facility that is inactive and unstaffed, as long as there are no industrial materials or activities exposed to stormwater. Such a facility is only required to conduct an annual site inspection in accordance with Part 3.1. To invoke this exception, you must indicate that your facility is inactive and unstaffed on your NOI. If you are already covered under the permit and your facility has changed from active to inactive and unstaffed, you must modify and re-certify your NOI. You must also include a statement in your SWPPP per Part 6.2.5.2 indicating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to stormwater, in accordance with the substantive requirements in 40 CFR 122.26(g)(4)(iii). The statement must be signed and certified in accordance with Appendix B, Subsection 11. If circumstances change and industrial materials or activities become exposed to stormwater or your facility becomes active and/or staffed, this exception no longer applies, and you must immediately resume routine facility inspections. If you are not qualified for this exception at the time you become authorized under this permit, but during the permit term you become qualified because your facility becomes inactive and unstaffed, and there are no industrial materials or activities exposed to stormwater, you must include the same signed and certified statement as above and retain it with your records pursuant to Part 6.5.

Inactive and unstaffed facilities covered under Sectors G (Metal Mining), H (Coal Mines and Coal Mining-Related Facilities), and J (Non-Metallic Mineral Mining and Dressing) are not required to meet the “no industrial materials or activities exposed to stormwater” standard to be eligible for this exception from routine inspections, per Parts 8.G.8.5, 8.H.9.1, and 8.J.9.1.

- 3.1.6 Routine Facility Inspection Documentation.** You must document the findings of your facility inspections and maintain this report with your SWPPP as required in Part 6.5. You must conduct any corrective action required as a result of a routine facility inspection consistent with Part 5. If you conducted a discharge visual assessment required in Part 3.2 during your facility inspection, you may include the results of the assessment with the report required in this Part, as long as you include all components of both types of inspections in the report.

Do not submit your routine facility inspection report to EPA, unless specifically requested to do so. However, you must summarize your findings in the Annual Report per Part 7.4. Document all findings, including but not limited to, the following information.

- 3.1.6.1** The inspection date and time;
- 3.1.6.2** The name(s) and signature(s) of the inspector(s);
- 3.1.6.3** Weather information;
- 3.1.6.4** All observations relating to the implementation of stormwater control measures at the facility, including:

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

3.2 Quarterly Visual Assessment of Stormwater Discharges

- 3.2.1 **Visual Assessment Frequency.** Once each quarter for your entire permit coverage, you must collect a stormwater sample from each discharge point (except as noted in Part 3.2.4) and conduct a visual assessment of each of these samples. These samples are not required to be collected consistent with 40 CFR Part 136 procedures but must be collected in such a manner that the samples are representative of the stormwater discharge. Guidance on monitoring is available at https://www.epa.gov/sites/production/files/2015-11/documents/msgp_monitoring_guide.pdf.
- 3.2.2 **Visual Assessment Procedures.** You must do the following for the quarterly visual assessment:
- 3.2.2.1 Make the assessment of a stormwater discharge sample in a clean, colorless glass or plastic container, and examined in a well-lit area;
- 3.2.2.2 Make the assessment of the sample you collected within the first 30 minutes of an actual discharge from a storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as practicable after the first 30 minutes and you must document why it was not possible to take the sample within the first 30 minutes. In the case of snowmelt, samples must be taken during a period with a measurable discharge; and
- 3.2.2.3 For storm events, make the assessment on discharges that occur at least 72 hours (three days) from the previous discharge. The 72-hour (three-day) storm interval does not apply if you document that less than a 72-hour (three-day) interval is representative for local storm events during the sampling period.
- 3.2.2.4 Visually inspect or observe for the following water quality characteristics, which may be evidence of stormwater pollution:
- a. Color;
 - b. Odor;

- c. Clarity (diminished);
 - d. Floating solids;
 - e. Settled solids;
 - f. Suspended solids;
 - g. Foam;
 - h. Oil sheen; and
 - i. Other obvious indicators of stormwater pollution.
- 3.2.2.5** Whenever the visual assessment shows evidence of stormwater pollution in the discharge, you must initiate the corrective action procedures in Part 5.1.1.
- 3.2.3** **Visual Assessment Documentation.** You must document the results of your visual assessments and maintain this documentation onsite with your SWPPP as required in Part 6.5. Any corrective action required as a result of a quarterly visual assessment must be conducted consistent with Part 5 of this permit. You are not required to submit your visual assessment findings to EPA, unless specifically requested to do so. However, you must summarize your findings in the annual report per Part 7.4. Your documentation of the visual assessment must include, but not be limited to:
- 3.2.3.1** Sample location(s);
 - 3.2.3.2** Sample collection date and time, and visual assessment date and time for each sample;
 - 3.2.3.3** Personnel collecting the sample and conducting visual assessment, and their signatures;
 - 3.2.3.4** Nature of the discharge (i.e., stormwater from rain or snow);
 - 3.2.3.5** Results of observations of the stormwater discharge;
 - 3.2.3.6** Probable sources of any observed stormwater contamination;
 - 3.2.3.7** If applicable, why it was not possible to take samples within the first 30 minutes; and
 - 3.2.3.8** A statement, signed and certified in accordance with Appendix B, Subsection 11.
- 3.2.4** **Exceptions to Quarterly Visual Assessments**
- 3.2.4.1** **Adverse Weather Conditions.** When adverse weather conditions prevent the collection of stormwater discharge sample(s) during the quarter, you must take a substitute sample during the next qualifying storm event. Documentation of the rationale for no visual assessment for the quarter must be included with your SWPPP records as described in Part 6.5. Adverse conditions are those that are dangerous or create inaccessibility for personnel, such as local flooding, high winds, electrical storms, or situations that otherwise make sampling impractical, such as extended frozen conditions.
 - 3.2.4.2** **Climates with Irregular Stormwater Discharges.** If your facility is located in an area where limited rainfall occurs during many parts of the year (e.g., arid or semi-arid climate) or in an area where freezing conditions exist that prevent discharges from occurring for extended periods, then your samples for the quarterly visual assessments may be distributed during seasons when precipitation more regularly occurs.

- 3.2.4.3 Areas that Receive Snow.** If the facility is in an area that typically receives snow and the facility receives snow at least once over a period of four quarters, at least one quarterly visual assessment must capture snowmelt discharge, as described in Part 4.1.3, taking into account the exception described above for climates with irregular stormwater discharges.
- 3.2.4.4 Inactive and Unstaffed Facilities.** The requirement for a quarterly visual assessment does not apply at a facility that is inactive and unstaffed, as long as there are no industrial materials or activities exposed to stormwater. To invoke this exception, you must maintain a statement in your SWPPP per Part 6.2.5.2 indicating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to precipitation, in accordance with the substantive requirements in 40 CFR 122.26(g)(4)(iii). The statement must be signed and certified in accordance with Appendix B, Subsection 11. If circumstances change and industrial materials or activities become exposed to stormwater or your facility becomes active and/or staffed, this exception no longer applies, and you must immediately resume quarterly visual assessments. If you are not qualified for this exception at the time you are authorized under this permit, but during the permit term you become qualified because your facility becomes inactive and unstaffed, and there are no industrial materials or activities that are exposed to stormwater, then you must include the same signed and certified statement as above and retain it with your records pursuant to Part 6.5. Inactive and unstaffed facilities covered under Sectors G (Metal Mining), H (Coal Mines and Coal Mining-Related Facilities), and J (Non-Metallic Mineral Mining and Dressing), are not required to meet the “no industrial materials or activities exposed to stormwater” standard to be eligible for this exception from quarterly visual assessments, consistent with the requirements established in Parts 8.G.8.5, 8.H.9.1, and 8.J.9.1.
- 3.2.4.5 Substantially Identical Discharge Points (SIDP).** If your facility has two or more discharge points that discharge substantially identical stormwater effluents, as documented in Part 6.2.5.3, you may conduct quarterly visual assessments of the discharge at just one of the discharge points and report that the results also apply to the SIDPs provided that you conduct visual assessments on a rotating basis of each SIDP throughout the period of your coverage under this permit. If stormwater contamination is identified through visual assessment conducted at a SIDP, you must assess and modify your stormwater control measures as appropriate for each discharge point represented by the monitored discharge point.

4. Monitoring

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

4.1 Monitoring Procedures

- 4.1.1 Monitored Stormwater Discharge Points.** Applicable monitoring requirements apply to each discharge point authorized by this permit, except as otherwise exempt from monitoring as a “substantially identical discharge point” (SIDP). If your facility has two or more discharge points that you believe discharge substantially identical stormwater effluents, based on the similarities of the general industrial activities and control measures, exposed materials that may significantly contribute pollutants to stormwater,

and runoff coefficients of their drainage areas, you may monitor the effluent of just one of the discharge points and report that the results also apply to the SIDP(s). As required in Part 6.2.5.3, your SWPPP must identify each discharge point authorized by this permit and describe the rationale for any SIDP determinations. The allowance for monitoring only one of the SIDP is not applicable to any discharge points with numeric effluent limitations. You are required to monitor each discharge point covered by a numeric effluent limit as identified in Part 4.2.3.

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

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

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

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

For indicator monitoring and benchmark monitoring, you may choose to use a composite sampling method instead of taking grab samples. This composite method may be either flow-weighted or time-weighted and performed manually or with the use of automated sampling equipment. For the purposes of this permit, a flow-weighted composite sample means a composite sample consisting of a mixture of aliquots collected at a constant or variable time interval, where the volume of each aliquot included in the composite sample is proportional to the estimated or measured incremental discharge volume at the time of the aliquot collection compared to the total discharge volume estimated or measured over the monitoring event. For the purposes of this permit, a time-weighted composite sample means a composite sample consisting of a mixture of equal volume aliquots collected at a regular defined time interval over a specific period of time. Composite sampling must be initiated during the first 30 minutes of the same storm event. If it is not possible to initiate composite sampling within the first 30 minutes of a measurable storm event, you must initiate composite sampling as soon as possible after the first 30 minutes and keep documentation with the SWPPP explaining why it was not possible to initiate composite sampling within the first 30 minutes. You must submit all monitoring results to EPA per Part 4.1.9. Composite sampling may not be used in situations where hold times for processing or sample preservation requirements cannot be satisfied. For parameters

measured in-situ with a probe or meter such as dissolved oxygen, conductivity, pH, or temperature, the composite sampling method shall be modified by calculating an average all individual measurements, weighted by flow volume if applicable.

4.1.5 Adverse Weather Conditions. When adverse weather conditions as described in Part 3.2.4.1 prevent the collection of stormwater discharge samples according to the relevant monitoring schedule, you must take a substitute sample during the next qualifying storm event. Adverse weather does not exempt you from having to file a benchmark monitoring report in accordance with your sampling schedule. As specified in Part 7.3.4, you must indicate in Net-DMR any failure to monitor during the regular reporting period.

4.1.6 Facilities in Climates with Irregular Stormwater Discharges. If your facility is located in areas where limited rainfall occurs during parts of the year (e.g., arid or semi-arid climates) or in areas where freezing conditions exist that prevent discharges from occurring for extended periods, you may distribute your required monitoring events during seasons when precipitation occurs, or when snowmelt results in a measurable discharge from your facility. You must still collect the required number of samples. As specified in Part 7.3.4, you must also indicate in Net-DMR that there was no monitoring for the respective monitoring period.

4.1.7 Monitoring Periods. Your monitoring requirements in this permit begin in the first full quarter following either May 30, 2021 or your date of discharge authorization, whichever date comes later.

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

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

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

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

4.2 Required Monitoring

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

- Indicator monitoring (Part 4.2.1);

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

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

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

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

Table 4-1. Summary of Each Type of Monitoring

Monitoring Type	Monitoring Type Applies To	Frequency	Duration	Follow-up Action	Permit Part Reference
Indicator – pH, TSS, COD	Subsectors B2, C5, D2, E3, F5, I1, J3, L2, N2, O1, P1, R1, T1, U3, V1, W1, X1, Y2, Z1, AB1, AC1, and AD1	Quarterly	Entirety of permit coverage	None	Part 4.2.1.1a
Indicator – PAHs*	Operators with stormwater discharges from paved surfaces that will be sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit; sectors; Sector A facilities that manufacture, use, or	Bi-annually (2 times per year)	First year and fourth year	None	Part 4.2.1.1b

Monitoring Type	Monitoring Type Applies To	Frequency	Duration	Follow-up Action	Permit Part Reference
	store creosote or creosote-treated wood in areas that are exposed to precipitation; and Sectors C (SIC 2911), D, F, H, I, M, O, P (SIC 4011, 4013, and 5171), Q (SIC 4493), R, and S				
Benchmark	Subsectors A1, A2, A3, A4, B1, C1, C2, C3, C4, D1, E1, E2, F1, F2, F3, F4, G1, G2, H1, J1, J2, K1, L1, M1, N1, Q1, S1, U1, U2, Y1, AA1, AA2	Quarterly	First year and fourth year	AIM. See Part 5.2.	Part 4.2.2
Effluent limitation guidelines (ELG)	See Part 4.2.3	Annually	Entirety of permit coverage	See Part 5.1	Part 4.2.3
State- or tribal-specific	Depends on the discharge location of your facility. See Part 9				
Impaired Waters	Depends on the receiving waterbody. See Part 4.2.5				
Other as required by EPA	See Part 4.2.6				

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

4.2.1 Indicator Monitoring. This permit requires indicator monitoring of stormwater discharges for three parameters – pH, Total Suspended Solids (TSS), and Chemical Oxygen Demand (COD) – for certain sectors/subsectors (see Part 4.2.1.1.a below) and for polycyclic aromatic hydrocarbons (PAHs) for certain sectors/activities, with additional limitations (see Part 4.2.1.1.b below). Indicator monitoring data will provide you and EPA with a baseline and comparable understanding of industrial stormwater discharge quality and potential water quality problems. The indicator monitoring parameters are “report-only” and do not have thresholds or baseline values for comparison, therefore no follow-up action is triggered or required under this part. The requirement in Part 2.2.1 that your stormwater discharge be controlled as necessary such that the receiving water of the United States will meet applicable water quality standards still applies. You may find it useful to evaluate and compare your indicator monitoring data over time to identify any fluctuating values and why they may be occurring, and to further inform any revisions to your SWPPP/SCMs if necessary.¹¹ Indicator monitoring is report-only and is neither benchmark monitoring nor an effluent limitation. Instead, it is a permit condition. Thus, failure to conduct indicator monitoring is a permit violation.

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

4.2.1.1 Applicability and Schedule of Indicator Monitoring**a. pH, Total Suspended Solids (TSS), and Chemical Oxygen Demand (COD)**

- i. **Applicability.** Operators in the following subsectors must monitor stormwater discharges for pH, TSS, and COD (also specified in the sector-specific requirements in Part 8): B2, C5, D2, E3, F5, I1, J3, L2, N2, O1, P1, R1, T1, U3, V1, W1, X1, Y2, Z1, AB1, AC1, and AD1). Samples must be analyzed consistent with 40 CFR Part 136 analytical methods.
- ii. **Schedule.** You must conduct indicator monitoring of stormwater discharges for pH, TSS, and COD each quarter, beginning in your first full quarter of permit coverage as identified in Part 4.1.7.

b. Polycyclic Aromatic Hydrocarbons (PAHs)

- i. **Applicability.** The following operators must monitor stormwater discharges for the 16 individual priority pollutant PAHs (also specified in the sector-specific requirements in Part 8): operators in all sectors with stormwater discharges from paved surfaces that will be sealed or re-sealed with coal-tar sealcoat where industrial activities are located during coverage under this permit; operators in sectors A (facilities that manufacture, use, or store creosote or creosote-treated wood in areas that are exposed to precipitation), C (SIC Code 2911), D, F, H, I, M, O, P (SIC Codes 4011, 4013, and 5171), Q (SIC Code 4493), R, and S. Monitoring is required for the 16 individual PAHs identified at Appendix A to 40 CFR Part 423: naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, benzo[g,h,i]perylene, indeno[1,2,3-c,d]pyrene, and dibenz[a,h]anthracene. Samples must be analyzed using EPA Method 625.1, or EPA Method 610/Standard Method 6440B if preferred by the operator, consistent with 40 CFR Part 136 analytical methods.
- ii. **Schedule.** You must conduct indicator monitoring of stormwater discharges for PAHs bi-annually (i.e., sample twice per year) in the first and fourth years of permit coverage. Your first year of permit coverage begins in your first full quarter of permit coverage, identified in Part 4.1.7, commencing no earlier than May 30, 2021, followed by two years of no monitoring. Bi-annual monitoring resumes in your fourth year of permit coverage for another year, after which you may discontinue bi-annual PAH monitoring for the remainder of your permit coverage.

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

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

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

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

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

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

4.2.2.1 Applicability of Benchmark Monitoring

You must monitor stormwater discharges for any benchmark parameters specified for the industrial sector(s), both primary industrial activity and any co-located industrial activities, applicable to your discharge listed in Part 8. If your facility is in one of the industrial sectors subject to benchmark thresholds that are hardness-dependent, you must include in your NOI a hardness value, established consistent with the procedures in Appendix J, that is representative of your receiving water. Hardness is not a specific benchmark and therefore the permit does not include a benchmark threshold with which to compare.

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

(i.e., a confirmed detection but below the level that can be reliably quantified), use a value halfway between zero and the quantitation limit.

4.2.2.2 **Summary of the 2021 MSGP Benchmark Thresholds**

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

Table 4-2 2021 MSGP Benchmark Thresholds

Pollutant		2021 MSGP Benchmark Threshold
Total Recoverable Aluminum (T)		1,100 µg/L
Total Recoverable Beryllium		130 µg/L
Biochemical Oxygen Demand (5-day)		30 mg/L
pH		6.0 – 9.0 s.u.
Chemical Oxygen Demand		120 mg/L
Total Phosphorus		2.0 mg/L
Total Suspended Solids (TSS)		100 mg/L
Nitrate and Nitrite Nitrogen		0.68 mg/L
Turbidity		50 NTU
Total Recoverable Antimony		640 µg/L
Ammonia		2.14 mg/L
Total Recoverable Cadmium	Freshwater ^a	1.8 µg/L
	Saltwater	33 µg/L
Total Recoverable Copper	Freshwater	5.19 µg/L
	Saltwater	4.8 µg/L
Total Recoverable Cyanide	Freshwater	22 µg/L
	Saltwater	1 µg/L
Total Recoverable Mercury	Freshwater	1.4 µg/L
	Saltwater	1.8 µg/L
Total Recoverable Nickel	Freshwater ^a	470 µg/L
	Saltwater	74 µg/L
Total Recoverable Selenium	Freshwater	1.5 µg/L for still/standing (lentic) waters 3.1 µg/L for flowing (lotic) waters
	Saltwater	290 µg/L
Total Recoverable Silver	Freshwater ^a	3.2 µg/L
	Saltwater	1.9 µg/L
Total	Freshwater ^a	120 µg/L

Pollutant		2021 MSGP Benchmark Threshold
Recoverable Zinc	Saltwater	90 µg/L
Total Recoverable Arsenic	Freshwater	150 µg/L
	Saltwater	69 µg/L
Total Recoverable Lead	Freshwater ^a	82 µg/L
	Saltwater	210 µg/L

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

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

- a. **Year one of permit coverage:** You must conduct benchmark monitoring for all parameters applicable to your subsector(s) for four quarters in your first year of permit coverage, beginning in your first *full* quarter of permit coverage, no earlier than May 30, 2021.
 - i. If the annual average¹² for a parameter does not exceed the benchmark threshold, you can discontinue benchmark monitoring for that parameter for the next two years (i.e., eight quarters).
 - ii. If the annual average for a parameter exceeds the benchmark threshold, you must comply with Part 5.2 (Additional Implementation Measures responses and deadlines) and continue quarterly benchmark monitoring for that parameter until results indicate that the annual average is no longer exceeded, after which you can discontinue benchmark monitoring for that parameter until monitoring resumes in year four of permit coverage, per Part 4.2.2.3.b below.
- b. **Year four of permit coverage:** You must conduct benchmark monitoring for all parameters applicable to your subsector(s) for four quarters in your fourth year of permit coverage (i.e., your thirteenth through sixteenth quarters), unless the first quarter of your fourth year of permit coverage occurs on or after the date this permit expires.

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

- i. If the annual average¹³ for a parameter does not exceed the benchmark threshold, you can discontinue benchmark monitoring for that parameter for the remainder of your permit coverage.
- ii. If the annual average for a parameter exceeds the benchmark threshold, you must comply with Part 5.2 (Additional Implementation Measures responses and deadlines) and continue quarterly benchmark monitoring for that parameter until results indicate that the annual average is no longer exceeded, after which you can discontinue benchmark monitoring for that parameter for the remainder of permit coverage.

4.2.2.4 Exception for Facilities in Climates with Irregular Stormwater Discharges. As described in Part 4.1.6, facilities in climates with irregular stormwater discharges may modify this quarterly schedule provided you report this revised schedule directly to EPA by the due date of the first benchmark sample (see EPA Regional contacts in Part 7.8), and you keep this revised schedule with the facility's SWPPP as specified in Part 6.5. When conditions prevent you from obtaining four samples in four consecutive quarters, you must continue monitoring until you have the four samples required for calculating your benchmark monitoring average. As noted in Part 4.1.7, you must indicate in Net-DMR any 3-month interval that you did not take a sample.

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

- a. Maintain a statement with your SWPPP stating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to stormwater in accordance with the substantive requirements in 40 CFR 122.26(g) and sign and certify the statement in accordance with Appendix B, Subsection 11.
- b. If circumstances change and industrial materials or activities become exposed to stormwater or your facility becomes active and/or staffed, this exception no longer applies and you must immediately begin complying with the applicable benchmark monitoring requirements under Part 4.2.2 as if you were in your first year of permit coverage. You must indicate in your NOI that your facility has materials or activities exposed to stormwater or has become active and/or staffed.
- c. If you are not qualified for this exception at the time you are authorized under this permit, but during the permit term you become qualified because your facility is inactive and unstaffed, and there are no industrial materials or activities that are exposed to stormwater, then you must notify EPA of this change on your NOI form. You may discontinue benchmark monitoring once you have notified EPA, and prepared and signed the certification statement described above concerning your facility's qualification for this special exception.

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

¹³ *Ibid.*

4.2.3 **Effluent Limitations Monitoring**

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

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

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

4.2.3.2 Substantially Identical Discharge Points Not Applicable. You must monitor each discharge point discharging stormwater from any regulated activity identified in Table 4-3. The substantially identical discharge points (SIDP) monitoring provisions are not available for numeric effluent limit monitoring.

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

- a. Submit an Exceedance Report:** You must submit an Exceedance Report no later than 30 days after you have received your laboratory result consistent with Part 7.5; and

- b. **Continue to Monitor:** You must monitor, at least quarterly, until your stormwater discharge is in compliance with the effluent limit or until EPA waives the requirement for additional monitoring. Once your discharge is back in compliance with the effluent limitation you must indicate this on a "Change NOI" form per Part 7.3.

4.2.4 State or Tribal Required Monitoring

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

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

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

4.2.5.1 Facilities Required to Monitor Stormwater Discharges to Impaired Waters

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

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

- i. **Year one of permit coverage:** You must take your first annual sample in your first year of permit coverage, which begins in the first full quarter following May 30, 2021 or your date of discharge authorization, whichever date comes later. You must monitor for all pollutants causing impairments using a standard analytical method, provided one exists (see 40 CFR Part 136), once at each discharge point (except substantially identical discharge points) discharging stormwater to impaired waters without an EPA-approved or established TMDL. *Note:* Except where otherwise directed by EPA, if the pollutant of concern for the impaired waterbody is suspended solids, turbidity, or sediment/sedimentation, you must monitor for Total Suspended Solids (TSS). If a pollutant of concern is expressed in the form of an indicator or surrogate pollutant, you must monitor for that indicator or surrogate pollutant. No monitoring is required when a waterbody's biological communities are impaired but no pollutant, including indicator or surrogate pollutants, is specified as causing the

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

impairment, or when a waterbody's impairment is related to hydrologic modifications, impaired hydrology, or other non-pollutant. Operators must consult the applicable EPA Regional Office for any available guidance regarding required monitoring parameters under this part.

- 1) If monitoring results indicate the monitored pollutant is not detected in your discharge, or is within the acceptable range for a given parameter for the waterbody to meet its designated use (e.g., pH or temperature),¹⁵ you may discontinue monitoring for that pollutant for the next two years. You must resume monitoring for that pollutant in year four of permit coverage, if applicable, per Part 4.2.5.1.a.ii.
 - 2) If monitoring results indicate that the monitored pollutant is detected in your stormwater discharge, or is outside the acceptable range for a given parameter (e.g., pH or temperature) for the waterbody to meet its designated use,¹⁶ you must continue to monitor for the pollutant(s) annually until no longer detected, after which you may discontinue monitoring for that pollutant until monitoring resumes in year four of permit coverage, if applicable, per Part 4.2.5.1.a.ii.
- ii. Year four of permit coverage.** Annual monitoring resumes in your fourth year of permit coverage for another year for a sub-set of parameters monitored for in the first monitoring year. In the fourth year of permit coverage, you must monitor for all pollutants causing impairment(s) that are associated with your industrial activity and/or are listed as a benchmark parameter for your subsector(s) (regardless of whether you have satisfied benchmark monitoring for the parameter per Part 4.2.2). To determine these pollutants, start with the list of pollutants for which the receiving waterbody is impaired and for which a standard analytical method exists (see 40 CFR Part 136), then compare that list to the industrial pollutants you identified in Part 6.2.3.2 and any sector-specific benchmark monitoring pollutants in Part 8 and, if applicable, Part 9. You must monitor for pollutants that appear on both the impairments list and either your industrial pollutants and/or your benchmark parameter list, including "indicator" or "surrogate" pollutants (as described in the "note" in 1 above). You must monitor once at each discharge point (except substantially identical discharge points (SIDPs)) for these pollutants. Consistent with Part 4.2, annual samples may be used to also satisfy any single remaining quarterly benchmark monitoring requirement applicable to your discharge.
- 1) If monitoring results indicate the monitored pollutant is not detected in your discharge, or is within the acceptable range for a given parameter for the waterbody to meet its designated use (e.g., pH or temperature),¹⁷ you may discontinue monitoring for that pollutant for the remainder of your permit coverage.
 - 2) If the monitoring results indicate that the monitored pollutant is detected in your discharge, or is outside the acceptable range for a given parameter (e.g., pH or temperature) for the waterbody to meet its designated use, you must continue to monitor for the pollutant(s)

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

¹⁶ *Ibid.*

¹⁷ *Ibid.*

annually until no longer detected, after which you may discontinue monitoring for that pollutant for the remainder of your permit coverage.

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

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

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

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

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

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

- a. Maintain a statement with your SWPPP stating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to stormwater in accordance with the substantive requirements in 40 CFR 122.26(g) and sign and certify the statement in accordance with Appendix B, Subsection 11.
- b. If circumstances change and industrial materials or activities become exposed to stormwater or your facility becomes active and/or staffed, this exception no longer applies and you must immediately begin complying with the applicable impaired waters monitoring requirements under Part 4.2.5 as if you were in your first year of permit coverage. You must indicate in a "Change NOI" form per Part

7.2 that your facility has materials or activities exposed to stormwater or has become active and/or staffed.

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

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

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

5. Corrective Actions and Additional Implementation Measures (AIM)

5.1 Corrective Action

5.1.1 Conditions Requiring SWPPP Review and Revision to Ensure Effluent Limits are Met. When any of the following conditions occur or are detected during an inspection, monitoring or other means, or EPA or the operator of the MS4 through which you discharge informs you that any of the following conditions have occurred, you must review and revise, as appropriate, your SWPPP (e.g., sources of pollution; spill and leak procedures; non-stormwater discharges; the selection, design, installation and implementation of your stormwater control measures) so that this permit's effluent limits are met and pollutant discharges are minimized:

5.1.1.1 An unauthorized release or discharge (e.g., spill, leak, or discharge of non-stormwater not authorized by this or another NPDES permit to a water of the United States) occurs at your facility.

5.1.1.2 A discharge violates a numeric effluent limit listed in Table 2-1 and/or in your Part 8 sector-specific requirements.

5.1.1.3 Your stormwater control measures are not stringent enough for your stormwater discharge to be controlled as necessary such that the receiving water of the United States will meet applicable water quality standards or to meet the non-numeric effluent limits in this permit.

5.1.1.4 A required control measure was never installed, was installed incorrectly, or not in accordance with Parts 2 and/or 8, or is not being properly operated or maintained.

5.1.1.5 Whenever a visual assessment shows evidence of stormwater pollution (e.g., color, odor, floating solids, settled solids, suspended solids, foam).

5.1.2 Conditions Requiring SWPPP Review to Determine if Modifications Are Necessary. If construction or a change in design, operation, or maintenance at your facility occurs that significantly changes the nature of pollutants discharged via stormwater from your facility, or significantly increases the quantity of pollutants discharged, you must review your SWPPP (e.g., sources of pollution, spill and leak procedures, non-stormwater

discharges, selection, design, installation and implementation of your stormwater control measures) to determine if modifications are necessary to meet the effluent limits in this permit.

5.1.3 **Deadlines for Corrective Actions**

5.1.3.1 Immediate Actions. You must immediately take all reasonable steps to minimize or prevent the discharge of pollutants until you can implement a permanent solution, including cleaning up any contaminated surfaces so that the material will not discharge in subsequent storm events. In Part 5, the term “immediately” means that the day you find a condition requiring corrective action, you must take all reasonable steps to minimize or prevent the discharge of pollutants until you can implement a permanent solution. However, if you identify a problem too late in the work day to initiate corrective action, you must perform the corrective action the following work day morning. The term “all reasonable steps” means you must respond to the conditions triggering the corrective action, such as cleaning up any exposed materials that may be discharged in a storm event (e.g., through sweeping, vacuuming) or making arrangements (i.e., scheduling) for a new SCM to be installed.

5.1.3.2 Subsequent Actions. If additional actions are necessary beyond those implemented pursuant to Part 5.1.3.1, you must complete the corrective actions (e.g., install a new or modified control and make it operational, complete the repair) before the next storm event if possible, and within 14 calendar days from the time of discovery that the condition in Part 5.1.1 is not met. If it is infeasible to complete the corrective action within 14 calendar days, you must document why it is infeasible to complete the corrective action within the 14-day timeframe. You must also identify your schedule for completing the work, which must be done as soon as practicable after the 14-day timeframe but no longer than 45 days after discovery. If the completion of corrective action will exceed the 45-day timeframe, you may take the minimum additional time necessary to complete the corrective action, provided that you notify the appropriate EPA Regional Office of your intention to exceed 45 days, your rationale for an extension, and a completion date, which you must also include in your corrective action documentation (see Part 5.3). Where your corrective actions result in changes to any of the controls or procedures documented in your SWPPP, you must modify your SWPPP accordingly within 14 calendar days of completing corrective action work.

These time intervals are not grace periods, but are schedules considered reasonable for documenting your findings and for making repairs and improvements. They are included in this permit to ensure that the conditions prompting the need for these repairs and improvements do not persist indefinitely.

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

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

event if possible, or as soon as practicable following that storm event. Any corrective actions must be conducted within the timeframes set forth in Part 5.1.3.

5.2 Additional Implementation Measures (AIM)

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

5.2.1 Baseline Status

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

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

- 5.2.2.1** The four-quarterly annual average for a parameter exceeds the benchmark threshold, or
- 5.2.2.2** Fewer than four quarterly samples are collected, but a single sample or the sum of any sample results within the sampling year exceeds the benchmark threshold by more than four times for a parameter. This result indicates an exceedance is mathematically certain (i.e., the sum of quarterly sample results to date is already more than four times the benchmark threshold).¹⁸

5.2.3 AIM Level 1

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

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

Review SWPPP/Stormwater Control Measures. Immediately review your SWPPP and the selection, design, installation, and implementation of your stormwater control measures to ensure the effectiveness of your existing measures and

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

determine if modifications are necessary to meet the benchmark threshold for the applicable parameter,¹⁹ and

Implement Additional Measures. After reviewing your SWPPP/stormwater control measures, you must implement additional measures, considering good engineering practices, that would reasonably be expected to bring your exceedances below the parameter's benchmark threshold; or if you determine nothing further needs to be done with your stormwater control measures, you must document per Part 5.3 and include in your annual report why you expect your existing control measures to bring your exceedances below the parameter's benchmark threshold for the next 12-month period.

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

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

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

- a.** Return to Baseline Status. Your AIM Level 1 status will return to baseline status if the AIM Level 1 responses have been met and continued quarterly benchmark monitoring results indicate that an AIM triggering event per Part 5.2.2 has not occurred after four quarters of monitoring (i.e., the benchmark threshold is no longer exceeded for the parameter(s)). You may discontinue benchmark monitoring for that parameter until monitoring resumes in year 4 of permit coverage per Part 4.2.2.3 or if you have fulfilled all benchmark monitoring requirements per Part 4.2.2.3, then you may discontinue monitoring for that parameter for the remainder of the permit.
- b. Advance to AIM Level 2.** Your AIM Level 1 status advances to AIM Level 2 status if you have completed AIM Level 1 responses and the continued quarterly benchmark monitoring results indicate that an AIM triggering event per Part 5.2.2 has occurred (i.e., the benchmark threshold continues to be exceeded for the same parameter(s)).

5.2.4 AIM Level 2

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

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

- 5.2.4.1 AIM Level 2 Responses.** If any of the events in Part 5.2.2 occur, you must review your SWPPP and implement additional pollution prevention/good housekeeping SCMs, considering good engineering practices, beyond what you did in your AIM Level 1 responses that would reasonably be expected to bring your exceedances below the parameter's benchmark threshold. Refer to the MSGP sector-specific fact sheets for recommended controls found at [<https://www.epa.gov/npdes/stormwater-discharges-industrial-activities-fact-sheets-and-guidance>].
- 5.2.4.2 AIM Level 2 Deadlines.** You must implement additional pollution prevention/good housekeeping SCMs within 14 days of receipt of laboratory results that indicate an AIM triggering event has occurred and document per Part 5.3 how the measures will achieve benchmark thresholds. If it is feasible for you to implement a measure, but not within 14 days, you may take up to 45 days to implement such measure. You must document per Part 5.3 why it was infeasible to implement such measure in 14 days. EPA may also grant you an extension beyond 45 days, based on an appropriate demonstration by you, the operator.
- 5.2.4.3 Continue Quarterly Benchmark Monitoring.** After compliance with AIM Level 2 responses and deadlines, you must continue quarterly benchmark monitoring for the next four quarters for the parameter(s) that caused the AIM triggering event at all affected discharge points, beginning no later than the next full quarter after compliance.
- 5.2.4.4 AIM Level 2 Status Update.** While in AIM Level 2 status, you may either:
- a. Return to Baseline Status.** Your AIM Level 2 status will return to baseline status if the AIM Level 2 responses have been met and the continued quarterly benchmark monitoring results indicate that an AIM triggering event per Part 5.2.2 has not occurred after four quarters of monitoring (i.e., the benchmark threshold is no longer exceeded for the parameter(s)). You may discontinue benchmark monitoring for that parameter until monitoring resumes in year 4 of permit coverage per Part 4.2.2.3, or if you have fulfilled all benchmark monitoring requirements per Part 4.2.2.3, then you may discontinue monitoring for that parameter for the remainder of the permit.
 - b. Advance to AIM Level 3.** Your AIM Level 2 status advances to AIM Level 3 status if you have completed the AIM Level 2 responses and the continued quarterly benchmark monitoring results indicate that an AIM triggering event per Part 5.2.2 has occurred (i.e., the benchmark threshold continues to be exceeded for the same parameter(s)).
- 5.2.5 AIM Level 3**
- Your status changes from AIM Level 2 to AIM Level 3 if your continued quarterly benchmark monitoring results indicate that an AIM triggering event per Part 5.2.2 has occurred (i.e., the benchmark threshold continues to be exceeded for the parameter(s)), unless you qualify for an exception per Part 5.2.6.
- 5.2.5.1 AIM Level 3 Responses.** if any of the triggering events in Part 5.2.2 occur, you must install structural source controls (e.g., permanent controls such as permanent cover, berms, and secondary containment), and/or treatment controls (e.g., sand filters, hydrodynamic separators, oil-water separators, retention ponds, and infiltration structures), except as provided in Part 5.2.6 (AIM Exceptions). The controls or treatment technologies or treatment train you install should be appropriate for the pollutants that

triggered AIM Level 3 and should be more rigorous than the pollution prevention/good housekeeping-type stormwater control measures implemented under AIM Level 2 in Part 5.2.4. You must select controls with pollutant removal efficiencies that are sufficient to bring your exceedances below the benchmark threshold. You must install such stormwater control measures for the discharge point(s) in question and for substantially identical discharge points (SIDPs), unless you individually monitor those SIDPs and demonstrate that AIM Level 3 requirements are not triggered at those discharge points.

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

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

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

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

5.2.6 AIM Exceptions

Following the occurrence of an AIM triggering event per Part 5.2.2, at any point or tier level of AIM and following four quarters of benchmark monitoring (or sooner if the exceedance is triggered by less than four quarters of data), you may qualify for an exception below from AIM requirements and continued benchmark monitoring. Regardless if you qualify for and claim an exception, you must still review your SCMs, SWPPP, and other on-site activities to determine if actions or modifications are necessary or appropriate in light of your benchmark exceedance(s). If claiming an AIM exception, you must follow the requirements to demonstrate that you qualify for the

exception as provided below. If you qualify for an exception, you are not required to comply with the AIM responses or the continuation of quarterly benchmark monitoring for any parameters for which you can demonstrate that the benchmark exceedance is:

- 5.2.6.1 Solely Attributable to Natural Background Pollutant Levels:** You must demonstrate that the benchmark exceedance is solely attributable to the presence of that pollutant in natural background sources, provided that all the following conditions are met and you submit your analysis and documentation to the applicable EPA Regional Office upon request:
- a. The four-quarter average concentration of your benchmark monitoring results (or fewer than four-quarters of data that trigger an exceedance) is less than or equal to the concentration of that pollutant in the natural background; and
 - b. You document and maintain with your SWPPP, as required in Part 6.5.9, your supporting rationale for concluding that benchmark exceedances are in fact attributable solely to natural background pollutant levels. You must include in your supporting rationale any data previously collected by you or others (including literature studies) that describe the levels of natural background pollutants in your stormwater discharge. Natural background pollutants are those substances that are naturally occurring in soils or ground water. Natural background pollutants do not include legacy pollutants from earlier activity on your site, or pollutants in run-on from neighboring sources which are not naturally occurring, such as other industrial facilities or roadways.
- 5.2.6.2 Due to Run-On:** You must demonstrate and obtain EPA agreement that run-on from a neighboring source (e.g., a source external to your facility) is the cause of the exceedance, provided that all the following conditions are met and you submit your analysis and documentation to the applicable EPA Regional Office for concurrence:
- a. After reviewing and revising your SWPPP, as appropriate, you should notify the other facility or entity contributing run-on to your discharges and request that they abate their pollutant contribution.
 - b. If the other facility or entity fails to take action to address their discharges or sources of pollutants, you should contact your applicable EPA Regional Office.
- 5.2.6.3 Due to an abnormal event:** You must immediately document per Part 5.3 that the AIM triggering event was abnormal, a description explaining what caused the abnormal event, and how any measures taken within 14 days of such event will prevent a reoccurrence of the exceedance. You must also collect a sample during the next measurable storm event to demonstrate that the result is less than the benchmark threshold, in which case you do not trigger any AIM requirements based on the abnormal event. You must report the result of this sample in NeT-DMR in lieu of the result from the sample that caused the AIM triggering event. You may avail yourself of the "abnormal" demonstration opportunity at any AIM Level, one time per parameter, and one time per discharge point, which shall include substantially identical discharge points (SIDP), provided you qualify for the exception.
- 5.2.6.4 For Aluminum and Copper benchmark parameters only: Demonstrated to not result in an exceedance of your facility-specific value using the national recommended water quality criteria in-lieu of the applicable MSGP benchmark threshold:**

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

a. Aluminum (only for discharges to freshwater):

i. Conditions for this exception are:

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

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

- 1) A description of the sampling, analysis, and quality assurance procedures that were followed for data collection, following the guidance in Section 3 of EPA's Industrial Stormwater Monitoring and Sampling Guide. https://www.epa.gov/sites/production/files/2015-11/documents/msgp_monitoring_guide.pdf;
- 2) The input parameters and export of results from the Aluminum Criteria Calculator, available at: <https://www.epa.gov/sites/production/files/2018-12/aluminum-criteria-calculator-v20.xlsm>; and,
- 3) A narrative summary of results.

b. Copper (only for discharges to freshwater):

i. Conditions for this exception are:

- 1) Use of EPA's 2007 National Recommended Freshwater Copper Aquatic Life Criteria: <https://www.epa.gov/wqc/aquatic-life-criteria-copper>;
- 2) In-stream waterbody sampling for the 10 water quality input parameters

to the BLM for copper: pH; dissolved organic carbon (DOC); alkalinity; temperature; major cations (calcium, magnesium, sodium, and potassium); and major anions (sulfate, chloride);

- 3) The water quality input parameters, with the exception of temperature, must fall within the range of conditions recommended for use in the BLM, found in Table 1-1 of the Data Requirements document: <https://www.epa.gov/sites/production/files/2015-11/documents/copper-data-requirements-training.pdf>; and
- 4) Completion of sampling events sufficient to capture spatial and temporal variability. Because some of the BLM input parameters are known to vary seasonally, EPA suggests a possible starting point of at least one sampling event per season.²⁰ Sampling events must adequately represent each applicable season at the facility's location, which would likely be over the course of at least one year. An equal number of ambient waterbody samples must be collected at a single upstream and downstream location from the operator's discharge point(s) to the receiving water of the United States. Where there exists no ambient source water upstream of the operator's discharge point(s) to the receiving water of the United States, samples of the ambient downstream waterbody conditions are sufficient.

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

- 1) A description of the sampling, analysis, and quality assurance procedures that were followed for data collection, following the guidance in Section 3 of EPA's Industrial Stormwater Monitoring and Sampling Guide. https://www.epa.gov/sites/production/files/2015-11/documents/msgp_monitoring_guide.pdf;
- 2) A discussion of how the data collected reflects the site-specific characteristics and how the operator considered special circumstances that may affect copper toxicity throughout the expected range of receiving water conditions;
- 3) The input file and export of the results from the BLM software, which can be requested at: <https://www.epa.gov/wqs-tech/copper-biotic-ligand-model>; and
- 4) A narrative summary of results.

5.2.6.5 Demonstrated to not result in any exceedance of water quality standards: You must demonstrate to EPA within 30 days of the AIM triggering event that the triggering event does not result in any exceedance of water quality standards. If it is not feasible to complete this demonstration within 30 days, you may take up to 90 days, documenting

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

in your SWPPP why it is infeasible to complete the demonstration within 30 days. EPA may also grant you an extension beyond 90 days, based on an appropriate demonstration by you, the operator. The demonstration to EPA, which will be made publicly available, must include the following minimum elements in order to be considered for approval by the EPA Regional Office:

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

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

- **EPA Approval of Your Submitted Demonstration.** If EPA approves such demonstration within this timeframe, you have met the requirements for this exception, and you do not have to comply with the corresponding AIM requirements and continued benchmark monitoring.
- **EPA Disapproval of Your Submitted Demonstration.** If EPA disapproves such demonstration within this timeframe, you must comply with the corresponding AIM requirements and continued benchmark monitoring, as required. Compliance with the AIM requirements would begin from the date EPA notifies you of the disapproval unless you submit a Notice of Dispute to the applicable EPA Regional Office in Part 7 within 30 days of EPA's disapproval.
- **EPA Does Not Provide Response Related to Your Submitted Demonstration.** If EPA does not provide a response on the demonstration within this timeframe, you may submit to the EPA Regional Office in Part 7 a Notice of Dispute.
- **Operator Submittal of Notice of Dispute.** You may submit all relevant materials, including support for your demonstration and all notices and responses to the Water Division Director for the applicable EPA Region to review within 30 days of EPA's disapproval or after 90 days (or 180 days if EPA has provided notice that it needs more time) of not receiving a response from EPA.
- **EPA Review of Notice of Dispute.** EPA will send you a response within 30 days of receipt of the Notice of Dispute. Time for action by you, the operator, upon disapproval shall be tolled during the period from filing of the Notice of Dispute until the decision on the Notice of Dispute is issued by the Water Division Director for the applicable EPA Region.

5.3 **Corrective Action and AIM Documentation**

- 5.3.1 **Documentation within 24 Hours.** You must document the existence of any of the conditions listed in Parts 5.1.1, 5.2.3, 5.2.4, or 5.2.5 within 24 hours of becoming aware of

such condition. You are not required to submit this documentation to EPA, unless specifically required or requested to do so. However, you must summarize your findings in the annual report per Part 7.4. Include the following information in your documentation:

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

6. Stormwater Pollution Prevention Plan (SWPPP)

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

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

6.1 Person(s) Responsible for Preparing the SWPPP

You shall prepare the SWPPP in accordance with good engineering practices and to industry standards. The SWPPP may be developed by either a person on your staff or a third party you hire, but it must be developed by a “qualified person” and must be certified per the signature requirements in Part 6.2.7. If EPA concludes that the SWPPP is not in compliance with Part 6.2 of this permit, EPA may require the SWPPP to be reviewed, amended as necessary, and certified by a Professional Engineer, or for Sector G, H or J, by a Professional Geologist, with the education and experience necessary to prepare an adequate SWPPP.

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

6.2 Required Contents of Your SWPPP

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

- Stormwater pollution prevention team (Part 6.2.1);
- Site description (Part 6.2.2);
- Summary of potential pollutant sources (Part 6.2.3);
- Description of stormwater control measures (Part 6.2.4);
- Schedules and procedures (Part 6.2.5);
- Documentation to support eligibility pertaining to other federal laws (Part 6.2.6); and
- Signature requirements (Part 6.2.7).

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

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

6.2.2 Site Description. Your SWPPP must include the following:

- 6.2.2.1 Activities at the facility.** Provide a description of the nature of the industrial activities at your facility.
- 6.2.2.2 General location map.** Provide a general location map (e.g., U.S. Geological Survey (USGS) quadrangle map) with enough detail to identify the location of your facility and all receiving waters for your stormwater discharges.
- 6.2.2.3 Site map.** Provide a map showing:
- a. Boundaries of the property and the size of the property in acres;
 - b. Location and extent of significant structures and impervious surfaces;
 - c. Directions of stormwater flow (use arrows), including flows with a significant potential to cause soil erosion;
 - d. Locations of all stormwater control measures;
 - e. Locations of all receiving waters, including wetlands, in the immediate vicinity of your facility. Indicate which waterbodies are listed as impaired and which are identified by your state, tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 waters;
 - f. Locations of all stormwater conveyances including ditches, pipes, and swales;
 - g. Locations of potential pollutant sources identified under Part 6.2.3.2;
 - h. Locations where significant spills or leaks identified under Part 6.2.3.3 have occurred;
 - i. Locations of all stormwater monitoring points;
 - j. Locations of stormwater inlets and discharge points, with a unique identification code for each discharge point (e.g., 001, 002), indicating if you are treating one or more discharge points as "substantially identical" under Parts 3.2.4.5, 6.2.5.3, and 4.1.1, and an approximate outline of the areas draining to each discharge point;
 - k. If applicable, municipal separate storm sewer systems (MS4s) and where your stormwater discharges to them;
 - l. Areas of Endangered Species Act-designated critical habitat for endangered or threatened species, if applicable.
 - m. Locations of the following activities where such activities are exposed to precipitation:
 - i. fueling stations;
 - ii. vehicle and equipment maintenance and/or cleaning areas;
 - iii. loading/unloading areas;
 - iv. locations used for the treatment, storage, or disposal of wastes;
 - v. liquid storage tanks;
 - vi. processing and storage areas;
 - vii. immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility;
 - viii. transfer areas for substances in bulk;
 - ix. machinery;

- x. locations and sources of run-on to your site from adjacent property that contains significant quantities of pollutants.

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

For each area identified, the description must include:

6.2.3.1 Activities in the Area. A list of the industrial activities exposed to stormwater (e.g., material storage; equipment fueling, maintenance, and cleaning; cutting steel beams).

6.2.3.2 Pollutants. A list of the pollutant(s) or pollutant constituents (e.g., crankcase oil, zinc, sulfuric acid, cleaning solvents) associated with each identified activity, which could be exposed to rainfall or snowmelt and could be discharged from your facility. The pollutant list must include all significant materials that have been handled, treated, stored or disposed, and that have been exposed to stormwater in the three years prior to the date you prepare or amend your SWPPP.

6.2.3.3 Spills and Leaks. You must document where potential spills and leaks could occur that could contribute pollutants to stormwater discharges, and the corresponding discharge point(s) that would be affected by such spills and leaks. You must document all significant spills and leaks of oil or toxic or hazardous substances that actually occurred at exposed areas, or that drained to a stormwater conveyance, in the three years prior to the date you prepare or amend your SWPPP.

Note: Significant spills and leaks include, but are not limited to, releases of oil or hazardous substances in excess of quantities that are reportable under CWA section 311 (see 40 CFR 110.6 and 40 CFR 117.21) or section 102 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 USC § 9602. This permit does not relieve you of the reporting requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302 relating to spills or other releases of oils or hazardous substances.

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

- a. The date of the evaluation;
- b. A description of the evaluation criteria used;
- c. A list of the discharge points or onsite drainage points that were directly observed during the evaluation; and

- d. If there are any unauthorized non-stormwater discharges (see Part 1.2.2 for the exclusive list of authorized non-stormwater discharges under this permit) you must immediately take action(s), such as implementing control measures, to eliminate those discharges or seek an individual NPDES wastewater permit and document that you obtained the permit (for example, a floor drain was sealed, a sink drain was re-routed to sanitary, or an NPDES permit application was submitted for an unauthorized cooling water discharge).
 - e. An explanation of everything you did to immediately eliminate the unauthorized discharge per Part 5 Corrective Actions.
- 6.2.3.5 Salt Storage.** You must document the location of any storage piles containing salt used for deicing or other commercial or industrial purposes.
- 6.2.3.6 Sampling Data.** Existing permitted facilities must summarize all stormwater discharge sampling data collected at the facility during the previous permit term. The summary shall include a narrative description (and may include data tables/figures) that adequately summarizes the collected sampling data to support identification of potential pollution sources at your facility. New dischargers and new sources must provide a summary of any available stormwater data they may have.
- 6.2.4 Description of Stormwater Control Measures to Meet Technology-Based and Water Quality-Based Effluent Limits.** You must document the location and type of stormwater control measures you have specifically chosen and/or designed to comply with:
- 6.2.4.1** Part 2.1.2: Non-numeric technology-based effluent limits;
 - 6.2.4.2** Parts 2.1.3 and 8: Applicable numeric effluent limitations guidelines-based limits;
 - 6.2.4.3** Part 2.2: Water quality-based effluent limits;
 - 6.2.4.4** Part 2.3: Any additional measures that formed the basis of eligibility regarding Endangered Species Act-listed threatened and endangered species or their critical habitat, National Historic Preservation Act historic properties, and/or federal CERCLA Site requirements;
 - 6.2.4.5** Parts 8 and 9: Applicable effluent limits;
 - 6.2.4.6** Regarding your control measures, you must also document, as appropriate:
 - a. How you addressed the selection and design considerations in Part 2.1.1;
 - b. How they address the pollutant sources identified in Part 6.2.3.
- Effluent limit requirements in Part 2.1.2 that do not involve the site-specific selection of a stormwater control measure or are specific activity requirements (e.g., “cleaning catch basins when the depth of debris reaches two-thirds (2/3) of the sump depth, or in line with manufacturer specifications, whichever is lower, and keeping the debris surface at least six inches below the lowest outlet pipe”) are marked with an asterisk (*). For the requirements marked with an asterisk, you may include extra information, or you may just “copy-and-paste” these effluent limits word-for-word into your SWPPP without providing additional documentation.

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

- a. **Good Housekeeping (see Part 2.1.2.2)** – A schedule or the convention used for determining when pickup and disposal of waste materials occurs. Also provide a schedule for routine inspections for leaks and conditions of drums, tanks and containers.
- b. **Maintenance (see Part 2.1.2.3)** – Preventative maintenance procedures, including regular inspections, testing, maintenance and repair of all stormwater control measures to avoid situations that may result in leaks, spills, and other releases, and any back-up practices in place should a storm event resulting in a stormwater discharge occur while a control measure is off-line. The SWPPP shall include the schedule or frequency for maintaining all control measures used to comply with the effluent limits in Part 2;
- c. **Spill Prevention and Response Procedures (see Part 2.1.2.4)** – Procedures for preventing and responding to spills and leaks, including notification procedures. For preventing spills, include in your SWPPP the stormwater control measures for material handling and storage, and the procedures for preventing spills that can contaminate stormwater. Also specify cleanup equipment, procedures and spill logs, as appropriate, in the event of spills. You may reference the existence of other plans for Spill Prevention, Control and Countermeasure (SPCC) developed for the facility under section 311 of the CWA or BMP programs otherwise required by an NPDES permit for the facility, provided that you keep a copy of that other plan onsite and make it available for review consistent with Part 6.4;
- d. **Erosion and Sediment Controls (see Part 2.1.2.5)** – If you use polymers and/or other chemical treatments as part of your erosion and sediment controls, you must identify the polymers and/or chemicals used and the purpose;
- e. **Employee Training (see Part 2.1.2.8)** – The elements of your employee training plan shall include all, but not necessarily limited to, the requirements set forth in Part 2.1.2.8, and also the following:
 - ii. The content of the training;
 - iii. The frequency/schedule of training for employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of this permit;
 - iv. A log of the dates on which specific employees received training.

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

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

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

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

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

6.2.5.3 Pertaining to Monitoring

- a. **Procedures for Each Type of Monitoring.** You must document in your SWPPP procedures for conducting the six types of analytical stormwater discharge monitoring specified by this permit, where applicable to your facility, including:
 - i. Indicator monitoring (Part 4.2.1);
 - ii. Benchmark monitoring (Part 4.2.2);
 - iii. Effluent limitations guidelines monitoring (Part 4.2.3);
 - iv. State- or tribal-specific monitoring (Part 4.2.4);
 - v. Impaired waters monitoring (Part 4.2.5);
 - vi. Other monitoring as required by EPA (Part 4.2.6).
- b. **Documentation for Each Type of Monitoring.** For each type of stormwater discharge monitoring, you must document in your SWPPP:
 - i. Locations where samples are collected, including any determination that two or more discharge points are substantially identical;
 - ii. Parameters for sampling and the frequency of sampling for each parameter;
 - iii. Schedules for monitoring at your facility, including schedule for alternate monitoring periods for climates with irregular stormwater discharges (see Part 4.1.6);
 - iv. Any numeric control values (benchmark thresholds, effluent limitations guidelines, TMDL-related requirements, or other requirements) applicable to stormwater discharges from each discharge point;
 - v. Procedures (e.g., responsible staff, logistics, laboratory to be used) for gathering storm event data, as specified in Part 4.1.
- c. **Exception for Inactive and Unstaffed Facilities.** If you are invoking the exception for inactive and unstaffed facilities for indicator monitoring, benchmark monitoring or impaired waters monitoring, you must include in your SWPPP the information to support this claim as required by Parts 4.2.2.5 and 4.2.5.2.
- d. **Exception for Substantially Identical Discharge Points (SIDP).** You must document the following in your SWPPP if you plan to use the SIDP exception for your quarterly visual assessment requirements in Part 3.2.4 or your indicator,

benchmark, or impaired waters monitoring requirements in Parts 4.2.1, 4.2.2, and 4.2.5, respectively (see also Part 4.1.1):

- i. Location of each SIDP;
- ii. Description of the general industrial activities conducted in the drainage area of each discharge point;
- iii. Description of the control measures implemented in the drainage area of each discharge point;
- iv. Description of the exposed materials located in the drainage area of each discharge point that are likely to be significant contributors of pollutants via stormwater discharges;
- v. An estimate of the runoff coefficient of the drainage areas (low = under 40%; medium = 40 to 65%; high = above 65%);
- vi. Why the discharge points are expected to discharge substantially identical effluents.

6.2.6 Documentation to Support Eligibility Pertaining to Other Federal Laws

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

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

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

6.3 Required SWPPP Modifications

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

6.4 SWPPP Availability

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

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

6.4.1 Making Your SWPPP Publicly Available

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

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

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

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

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

6.5 Additional Documentation Requirements

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

6.5.1 A copy of the NOI submitted to EPA along with any correspondence exchanged between you and EPA specific to coverage under this permit;

- 6.5.2** A copy of the authorization email you receive from the EPA assigning your NPDES ID;
- 6.5.3** A copy of this permit (either a hard copy or an electronic copy easily available to SWPPP personnel);
- 6.5.4** Documentation of any maintenance and repairs of stormwater control measures, including the date(s) of regular maintenance, date(s) of discovery of areas in need of repair/replacement, and for repairs, date(s) that the control measure(s) returned to full function, and the justification for any extended maintenance/repair schedules (see Part 2.1.2.3);
- 6.5.5** All inspection reports, including the Routine Facility Inspection Reports (see Part 3.1.6) and Visual Assessment Documentation (see Part 3.2.3);
- 6.5.6** Description of any deviations from the schedule for visual assessments and/or monitoring, and the reason for the deviations (e.g., adverse weather or it was impracticable to collect samples within the first 30 minutes of a measurable storm event) (see Parts 3.2.4 and 4.1.5);
- 6.5.7** Corrective action documentation required per Part 5.1;
- 6.5.8** Documentation of any benchmark threshold exceedances, which AIM Level triggering event the exceedance caused, and AIM response you employed per Part 5.2, including:
- 6.5.8.1** The AIM triggering event;
- 6.5.8.2** The AIM response taken;
- 6.5.8.3** Any rationale that SWPPP/SCM changes were unnecessary;
- 6.5.8.4** Any documentation required to meet any AIM exception per Part 5.2.6.
- 6.5.9** Documentation to support any determination that pollutants of concern are not expected to be present above natural background levels if you discharge directly to impaired waters, and that such pollutants were not detected in your discharge after three years or were solely attributable to natural background sources (see Part 4.2.5.1); and
- 6.5.10** Documentation to support your claim that your facility has changed its status from active to inactive and unstaffed with respect to the requirements to conduct routine facility inspections (see Part 3.1.5), quarterly visual assessments (see Part 3.2.4.4), benchmark monitoring (see Part 4.2.2.5), and/or impaired waters monitoring (see Part 4.2.5.2).

7. Reporting and Recordkeeping

7.1 Electronic Reporting Requirement

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

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

- If you have limitations regarding available computer access or computer capability.

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

If you wish to obtain a waiver from submitting a report electronically, you must submit a request to the applicable EPA Regional Office, found in Part 7.8. In that request you must document which exemption you meet, provide evidence supporting any claims, and a copy of your completed paper form. A waiver may only be considered granted once you receive written confirmation from EPA or its authorized representative.

7.2 Submitting Information to EPA

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

Information you must submit to EPA via NeT-MSGP:

- Notice of Intent (NOI) (Part 1.3);
- Change Notice of Intent (NOI) (Part 1.3.4);
- No Exposure Certification (NEC) (Part 1.5);
- Notice of Termination (NOT) (Part 1.4); and
- Annual Report (AR) (Part 7.4).

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

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

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

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

7.3 Reporting Monitoring Data to EPA

- 7.3.1 Submitting Monitoring Data via NeT-DMR.** You must submit all stormwater discharge monitoring data collected pursuant to Part 4 to EPA using Net-DMR, EPA's electronic DMR system (for more information visit: <https://www.epa.gov/compliance/npdes-ereporting> (unless the applicable EPA Regional Office grants you a waiver from electronic reporting, in which case you may submit a paper DMR form) no later than 30 days after you have received your complete laboratory results for all monitoring discharge points for the reporting period. Your monitoring requirements (i.e., parameters required to be monitored and sample frequency) will be prepopulated on your electronic Discharge Monitoring Report (DMR) form based on the information you

reported on your NOI form through the NeT-MSGP. Accordingly, you must certify the following changes to your monitoring frequency to EPA by submitting a Change NOI in NeT-MSGP, unless EPA has completed the development of planned features in the electronic systems to process submitted monitoring results to automatically turn monitoring on/off as applicable, which will trigger changes to your monitoring requirements in Net-DMR:

- 7.3.1.1 All benchmark monitoring requirements have been fulfilled for the permit term;
- 7.3.1.2 All impaired waters monitoring requirements have been fulfilled for the permit term;
- 7.3.1.3 Benchmark monitoring requirements no longer apply because the EPA Regional Office has concurred with your assessment that run-on from a neighboring source is the cause of the exceedance;
- 7.3.1.4 Benchmark and/or impaired monitoring requirements no longer apply because your facility is inactive and unstaffed;
- 7.3.1.5 Benchmark and/or impaired monitoring requirements now apply because your facility has changed from inactive and unstaffed to active and staffed;
- 7.3.1.6 For Sector G2 only: Discharges from waste rock and overburden piles have exceeded benchmark thresholds;
- 7.3.1.7 A numeric effluent limitation guideline has been exceeded;
- 7.3.1.8 A numeric effluent limitation guideline exceedance is back in compliance.
- 7.3.2 **When You Can Discontinue Submission of Monitoring Data.** Once you have completely fulfilled applicable monitoring requirements, you are no longer required to report monitoring results using Net-DMR. If you have only partially fulfilled your benchmark monitoring and/or impaired waters monitoring requirements (e.g., your four quarterly average is below the benchmark for some, but not all, parameters; you did not detect some, but not all, impairment pollutants), you must continue to report your results in Net-DMR for the remaining monitoring requirements. If the EPA Regional Office grants you a waiver per Part 7.1, you must submit paper reporting forms by the same deadline.
- 7.3.3 **State or Tribal Required Monitoring Data.** See Part 9 for specific reporting requirements applicable to individual states or tribes.
- 7.3.4 **Submission Deadline for Indicator and Benchmark Monitoring Data.** For both indicator and benchmark monitoring, you are required to submit sampling results to EPA no later than 30 days after receiving your complete laboratory results for all monitored discharge points for each monitoring period that you are required to collect samples, per Part 4.2.1. and Part 4.2.2. If you collect samples during multiple storm events in a single quarter (e.g., due to adverse weather conditions, climates with irregular stormwater discharges, or areas subject to snow), you are required to submit all sampling results for each storm event to EPA within 30 days of receiving all laboratory results for the event. Or, for any of your monitored discharge points that did not have a discharge within the reporting period, using Net-DMR, you must report that no discharges occurred for that discharge point no later than 30 days after the end of the reporting period.

7.4 Annual Report

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

7.4.1 A summary of your past year's routine facility inspection documentation required (Part 3.1.6). In addition, if you are an operator of an airport facility (Sector S) that is subject to the airport effluent limitations guidelines and are complying with the Part 8.S.9.1 effluent limitation through the use of non-urea-containing deicers, provide a statement certifying that you do not use pavement deicers containing urea. (Note: Operators of airport facilities that are complying with Part 8.S.9.1 by meeting the numeric effluent limitation for ammonia do not need to include this statement.)

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

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

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

7.5 Numeric Effluent Limitations Exceedance Report

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

7.5.1 NPDES ID;

7.5.2 Facility name, physical address and location;

7.5.3 Name of receiving water;

7.5.4 Monitoring data from this and the preceding monitoring event(s);

7.5.5 An explanation of the situation, including what you have done and intend to do (should your corrective actions not yet be complete) to correct the violation;

7.5.6 An appropriate contact name and phone number.

7.6 Additional Standard Recordkeeping and Reporting Requirements

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

- 7.6.1** 24-hour reporting (see Appendix B, Subsection 12.F) – You must report any noncompliance which may endanger health or the environment. Any information must be provided orally within 24 hours from the time you become aware of the circumstances;
- 7.6.2** 5-day follow-up reporting to the 24-hour reporting (see Appendix B, Subsection 12.F) – A written submission must also be provided within five days of the time you become aware of the circumstances;
- 7.6.3** Reportable quantity spills (see Part 2.1.2.4) – You must provide notification, as required under Part 2.1.2.4, as soon as you have knowledge of a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity;
- 7.6.4** Planned changes (see Appendix B, Subsection 12.A) – You must give notice to EPA promptly, no fewer than 30 days prior to making any planned physical alterations or additions to the permitted facility that qualify the facility as a new source or that could significantly change the nature or significantly increase the quantity of pollutants discharged;
- 7.6.5** Anticipated noncompliance (see Appendix B, Subsection 12.B) – You must give advance notice to EPA of any planned changes in the permitted facility or activity which you anticipate will result in noncompliance with permit requirements;
- 7.6.6** Compliance schedules (see Appendix B, Subsection 12.E) – Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date;
- 7.6.7** Other noncompliance (see Appendix B, Subsection 12.G) – You must report all instances of noncompliance not reported in your Annual Report, compliance schedule report, or 24-hour report at the time monitoring reports are submitted; and
- 7.6.8** Other information (see Appendix B, Subsection 12.H) – You must promptly submit facts or information if you become aware that you failed to submit relevant facts in your NOI, or that you submitted incorrect information in your NOI or in any report.

7.7 **Record Retention Requirements**

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

7.8 Addresses for Reports

Permit Part	EPA Region	Areas Covered	Address
7.8.1	1	Connecticut Massachusetts New Hampshire Rhode Island Vermont	U.S. EPA Region 1 Water Division Stormwater and Construction Permits Section 5 Post Office Square, Ste. 100 (06-1) Boston, MA 02109-3912
7.8.2	2	New Jersey New York	U.S. EPA Region 2 NPDES Stormwater Program 290 Broadway, 24th Floor New York, NY 10007-1866
		Puerto Rico Virgin Islands	U.S. EPA Region 2 Caribbean Environmental Protection Division NPDES Stormwater Program City View Plaza II – Suite 7000 48 Rd. 165 Km 1.2 Guaynabo, PR 00968-8069
7.8.3	3	Delaware District of Columbia Maryland Pennsylvania Virginia West Virginia	U.S. EPA Region 3 NPDES Permits Section, MC 3WD41 1650 Arch Street Philadelphia, PA 19103
7.8.4	4	Alabama Florida Georgia Kentucky Mississippi North Carolina South Carolina Tennessee	U.S. EPA Region 4 Water Division NPDES Stormwater Program Atlanta Federal Center 61 Forsyth Street SW Atlanta, GA 30303-3104
7.8.5	5	Illinois Indiana Michigan Minnesota Ohio Wisconsin	U.S. EPA Region 5 NPDES Program Branch 77 W. Jackson Blvd. MC WP16J Chicago, IL 60604-3507
7.8.6	6	Arkansas Louisiana Oklahoma Texas New Mexico (except see Region 9 for Navajo lands, and see Region 8 for Ute Mountain Reservation lands)	U.S. EPA Region 6 Permitting Section (WD-PE) 1201 Elm Street, Suite 500 Dallas, TX 75270
7.8.7	7	Iowa Kansas Missouri	U.S. EPA Region 7 NPDES Stormwater Program 11201 Renner Blvd

Permit Part	EPA Region	Areas Covered	Address
		Nebraska	Lenexa, KS 66219
7.8.8	8	Colorado Montana North Dakota South Dakota Wyoming Utah (except see Region 9 for Goshute Reservation and Navajo Reservation lands) The Ute Mountain Reservation in New Mexico The Pine Ridge Reservation in Nebraska	EPA Region 8 Storm Water Program MC: 8P-W-WW 1595 Wynkoop Street Denver, CO 80202-1129
7.8.9	9	Arizona California Hawaii Nevada Guam American Samoa The Commonwealth of the Northern Mariana Islands The Goshute Reservation in Utah and Nevada The Navajo Reservation in Utah New Mexico, and Arizona The Duck Valley Reservation in Idaho Fort McDermitt Reservation in Oregon	U.S. EPA Region 9 Water Division NPDES Stormwater Program (WTR-2-3) 75 Hawthorne Street San Francisco, CA 94105-3901
7.8.10	10	Alaska Idaho Oregon (except see Region 9 for Fort McDermitt Reservation) Washington	U.S. EPA Region 10 Water Division NPDES Stormwater Program (19-C04) 1200 6th Avenue, Suite 155 Seattle, WA 98101-3188
7.8.11	State and Tribal Addresses		See Part 9 (states and tribes) for the addresses of applicable states or tribes that require submission of information to their agencies.

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT FOR REMEDIATION ACTIVITY DISCHARGES**

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APPENDICES

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**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT FOR REMEDIATION ACTIVITY DISCHARGES**

Massachusetts General Permit, Permit No. MAG910000

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. §§1251 *et seq.*; the "CWA"), and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53), the following permit authorizes discharges from eight general remediation activity categories, including:

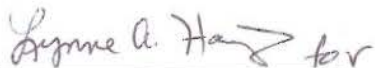
- I. Petroleum-related site remediation;¹
- II. Non-petroleum-related site remediation;¹
- III. Contaminated site dewatering;
- IV. Pipeline and tank dewatering;
- V. Aquifer pump testing;
- VI. Well development/rehabilitation;
- VII. Collection structure remediation/dewatering; and
- VIII. Dredge-related dewatering.

Such discharges are authorized at sites located in Massachusetts to all classes of waters designated in the Massachusetts Water Quality Standards, 314 CMR 4.00 *et seq.*, unless otherwise restricted, in accordance with effluent limitations, monitoring requirements, and other conditions set forth herein.

This Remediation General Permit (RGP) shall become effective thirty (30) days from the date of signature.

This general permit and the authorization to discharge supersede the previous Remediation General Permit which expired on September 9, 2015. This general permit will expire at midnight, 5 years from the effective date.

Signed this 9th day of March 2017.



Ken Moraff, Director
Office of Ecosystem Protection
Environmental Protection Agency
Region 1
Boston, MA



Douglas E. Fine, Assistant Commissioner
Bureau of Water Resources
Department of Environmental Protection
Commonwealth of Massachusetts
Boston, MA

¹ For discharges that are subject to the Massachusetts Contingency Plan (310 CMR 40.0000), this general permit applies as a matter of federal, but not state, law. For all other discharges, this general permit applies as a matter of both.

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT FOR REMEDIATION ACTIVITY DISCHARGES**

New Hampshire General Permit, Permit No. NHG910000

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. §§1251 *et seq.*; the "CWA"), the following permit authorizes discharges from eight general remediation activity categories, including:

- I. Petroleum-related site remediation;
- II. Non-petroleum-related site remediation;
- III. Contaminated site dewatering;
- IV. Pipeline and tank dewatering;
- V. Aquifer pump testing;
- VI. Well development/rehabilitation;
- VII. Collection structure remediation/dewatering, and
- VIII. Dredge-related dewatering.

Such discharges are authorized to all waters located in New Hampshire, unless otherwise restricted by the New Hampshire Water Quality Standards,² in accordance with effluent limitations, monitoring requirements, and other conditions set forth herein.

This Remediation General Permit (RGP) shall become effective thirty (30) days from the date of signature.

This general permit and the authorization to discharge supersede the previous Remediation General Permit which expired on September 9, 2015. This general permit will expire at midnight, 5 years from the effective date.

Signed this *9th* day of *March* 2017.

Signature A. Hay

Ken Moraff, Director
Office of Ecosystem Protection
Environmental Protection Agency
Region 1
Boston, MA

² 50 RSA §485-A:8 and the N.H. Code of Administrative Rules, Chapter Env-Wq 1700 Surface Water Quality Regulations.

PART 1 APPLICABILITY AND COVERAGE OF THE RGP

For purposes of this general permit, the owner or operator (hereinafter referred to as the “operator”), as defined by 40 CFR §122.2, of any “facility or activity” (hereinafter referred to as “site”) subject to regulation under the NPDES program is responsible for applying for coverage under this general permit. As required by 40 CFR §122.21(b), “[w]hen a facility or activity is owned by one person but is operated by another person, it is the operator’s duty to obtain a permit.” For the purposes of this general permit, this can include residential owners treating contaminated groundwater released from heating oil tanks.

1.1 Subject Discharges

Existing, emergency, and new discharges from the following remediation, dewatering and dewatering/remediation-related activities are eligible for coverage under this general permit:

1. Petroleum-related site remediation includes remediation of groundwater contaminated by petroleum products (e.g., gasoline, fuel oil, jet fuel, fuel additives and oxygenates, waste oil) and related activities.
2. Non-petroleum-related site remediation includes remediation of groundwater contaminated by volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), or inorganics (e.g., metals) and related activities.
3. Contaminated site dewatering includes dewatering conducted at former remediation sites, sites with no known source of contamination, or sites where pollutants are naturally occurring and related activities.
4. Pipeline and tank dewatering includes dewatering of pipelines, tanks, and similar structures and appurtenances that store or convey petroleum products, non-petroleum products, potable water, groundwater, and certain surface waters during construction of new structures or repair or maintenance of existing structures.
5. Aquifer pump testing includes short or long-term testing of a distinct contaminated or formerly contaminated aquifer(s), including when contamination is naturally occurring.
6. Well development/rehabilitation includes the development or rehabilitation of groundwater monitoring, groundwater extraction, and water supply wells at contaminated or formerly contaminated sites, including when contamination is naturally occurring.
7. Collection structure dewatering/remediation includes dewatering/remediation of structures utilized for collecting miscellaneous sources of water from contaminated or formerly contaminated sites or sources (e.g., sumps and dikes), including when contamination is naturally occurring or a result of the infiltration of contaminated groundwater or storm water.

8. Dredge-related dewatering includes certain short-term dredging-related activities such as a short-term pilot study or similar activity associated with dredging, dredge material dewatering, including drain back waters and dewatering of contaminated solids.

Table 1: Activities Covered by the Remediation General Permit

Activity Category	Contamination Type	
I. Petroleum-Related Site Remediation II. Non-Petroleum-Related Site Remediation	A. Inorganics B. Non-Halogenated Volatile Organic Compounds C. Halogenated Volatile Organic Compounds D. Non-Halogenated Semi-Volatile Organic Compounds E. Halogenated Semi-Volatile Organic Compounds F. Fuels Parameters	
Activity Category	Contamination Type	
III. Contaminated Site Dewatering IV. Pipeline and Tank Dewatering V. Aquifer Pump Testing VI. Well Development/Rehabilitation VII. Collection Structure Dewatering/Remediation VIII. Dredge-Related Dewatering	G. Sites with Known Contamination	A. Inorganics B. Non-Halogenated Volatile Organic Compounds C. Halogenated Volatile Organic Compounds D. Non-Halogenated Semi-Volatile Organic Compounds E. Halogenated Semi-Volatile Organic Compounds F. Fuels Parameters
	H. Sites with Unknown Contamination	

For the purposes of this general permit, remediation and dewatering discharges are those that contain only the pollutants included in the Contamination Type Categories in this general permit at levels that do not exceed the effluent limitations in this general permit (see Part 2), unless otherwise authorized on a case-by-case basis. Minimum treatment requirements, including Best Management Practices (BMPs), are found in Part 2.5 of this general permit. The term “existing discharge” refers to a discharge in accordance with the Remediation General Permit that expired on September 9, 2015. The term “emergency discharge” refers to a discharge that is a result of remediation or dewatering activities conducted in response to a public emergency and the discharge requires immediate authorization to avoid imminent endangerment to human health, public safety, or the environment, or to reestablish essential public services. The term “new discharge” refers to any discharge that is not an existing or emergency discharge. The term “known” used in Contamination Type G, above, refers to sites with fully characterized and/or specific contamination type categories, where pollutants have been quantified in environmental samples, and such data meet minimum data validation requirements.³ Activity Categories III-G through VIII-G must select all Contamination Type Categories A through F, that are present. The term “unknown” used in Contamination Type H, above, refers to sites broadly associated with

³ For sites located in Massachusetts, operators may refer to Massachusetts Policy #WSC-07-350, *MCP Representativeness Evaluations and Data Usability Assessments* for guidance on data usability assessments. For sites located in New Hampshire, operators may refer to EPA Region 1 guidance for data validation.

contamination that may or may not be fully characterized, including, but not limited to sites where pollutants may be present, but all potential pollutants have not been quantified, or pollutants have been quantified, but such data do not meet minimum data validation requirements. For Activity Categories III-H through VIII-H, Contamination Type Categories A through F apply. For the purposes of this general permit, a pollutant is “known present” if measured above the analytical detection limit using a sufficiently sensitive test method in an environmental sample, and “believed present” if a pollutant has not been measured in an environmental sample but will be added or generated prior to discharge, such as through a treatment process. Consequently, a pollutant is “known absent” if measured as non-detect relative to the analytical detection limit using a sufficiently sensitive test method in an environmental sample, and “believed absent” if a pollutant has not been measured in an environmental sample but will not be added or generated prior to discharge and is not a parameter that applies to the applicable activity category for a site. See Part 2.1.1 for parameter applicability and Part 4.1.4 for additional definitions.

1.2 Geographic Coverage Area

1. Sites located in Massachusetts

All of the discharges to be authorized by this general NPDES permit in the Commonwealth of Massachusetts are into all waters of the Commonwealth unless otherwise restricted by the Massachusetts Surface Water Quality Standards, 314 CMR 4.00 (or as revised), including 314 CMR 4.04(3), Protection of Outstanding Resource Waters.

2. Sites located in New Hampshire

All of the discharges to be authorized by this general NPDES permit in the State of New Hampshire are into all waters of the State of New Hampshire unless otherwise restricted by the New Hampshire Surface Water Quality Regulations, New Hampshire Code of Administrative Rules, Chapter Env-Wq 1700 (or as revised), including 50 RSA §485-A:8-11, Classification of Waters.

1.3 Limitations on Coverage

The following discharges are ineligible for coverage under this general permit:

1. Discharges to Outstanding Resource Waters in Massachusetts and New Hampshire:
 - a. as defined in Massachusetts by 314 CMR 4.06, including Public Water Supplies (314 CMR 4.06(1)(d)1) which have been designated by the State as Class A waters, unless an authorization is granted by the Massachusetts Department of Environmental Protection (MassDEP) by 314 CMR 4.04(3)(b); or
 - b. as defined in New Hampshire under Env-Wq 1708.05(a), unless allowed by the New Hampshire Department of Environmental Services (NHDES) under Env-Wq 1708.05(b).
2. Discharges to Class A waters in New Hampshire, in accordance with RSA 485A:8, I. and Env-Wq 1708.06. To determine if the proposed receiving water is a Class A waterbody, contact NHDES as listed in Part 4.6 of this general permit.

3. Discharges that are likely to adversely affect any species listed as endangered or threatened under the Endangered Species Act (ESA) or result in the adverse modification or destruction of critical habitat under ESA. See Appendix I of this general permit for additional ESA requirements, and Appendix II of this general permit for additional ESA information.
4. Discharges whose direct or indirect impacts do not prevent or minimize adverse effects on any designated Essential Fish Habitat (EFH). See Appendix II of this general permit for additional EFH information.
5. Discharges of pollutants identified as the cause of an impairment to receiving water segments identified on the Commonwealth of Massachusetts or the State of New Hampshire approved 303(d) lists, unless the pollutant concentration is at or below a concentration that meets water quality standards.⁴
6. Discharges to Ocean Sanctuaries in Massachusetts, as defined at 302 CMR 5.00.
7. Discharges to territorial seas, as defined by Section 502 of the CWA.
8. Discharges to a river designated as a Wild and Scenic River, except in accordance with 16 U.S.C. 1271 *et seq.* See <http://www.rivers.gov/> for additional information.
9. Discharges which adversely affect properties listed or eligible for listing in the National Registry of Historic Places under the National Historic Preservation Act of 1966 (NHPA), 16 USC §470 *et seq.* See Appendix III of this general permit for additional NHPA requirements.
10. Remediation or dewatering discharges resulting from on-site response action conducted pursuant to §§104, 106, 120, 121 or 122 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).
11. Discharges of uncontaminated effluent authorized or allowable under other United States Environmental Protection Agency (EPA) permits.
12. Discharges to a Publicly Owned Treatment Works (POTW) which is permitted under Section 402 of the CWA.

⁴ The discharge would be eligible if a segment is impaired due to a pollutant which is not expected in the discharge covered by this general permit. Similarly, the discharge would be eligible if the discharge contains the pollutants for which a segment is impaired (e.g., metals) but meets the limitations in this general permit for those pollutants, as these limitations are equal to the water quality standards with no allowable dilution. See Massachusetts' integrated list of waters (CWA 303(d) and 305(b)) at <http://www.mass.gov> and New Hampshire's integrated list of waters (CWA 303(d) and 305(b)) at <http://des.nh.gov>.

13. Discharges directly or indirectly to the ground subject to other program authority, including the Underground Injection Control (UIC) Program under authority of the Safe Drinking Water Act, a State groundwater discharge permit program, or a similar program authority.
14. Discharge of dredge-related waters where the United States Army Corps of Engineers (ACE) intends to authorize the discharge under a CWA §404 permit.⁵
15. New Sources, as defined in 40 CFR §122.2.
16. Discharges covered by an individual NPDES permit unless:
 - a. The discharges are separate from the currently permitted discharges; or
 - b. The discharges covered by an individual NPDES permit are eligible for this general permit.
17. Discharges for which the Director makes a determination that an individual permit is required. See Part 3 of this general permit.

1.4 Special Eligibility Determinations

Sites located in Massachusetts and New Hampshire that are seeking coverage under this general permit must certify compliance with the requirements of this permit related to threatened and endangered species and critical habitat under the Endangered Species Act (i.e., ESA and EFH) and to historic properties under the National Historical Preservation Act, where applicable (i.e., NHPA).

1. Endangered and Threatened Species and/or Critical Habitat⁶

Sites that are located in areas in which listed species may be present are not automatically covered under this general permit. Operators must demonstrate permit eligibility following the eligibility requirements in Appendix I and include this determination in the Notice of Intent (NOI). See Appendix II of this general permit for additional information.

2. National Historic Preservation Act

Sites that are located on or near properties listed or eligible for listing in the National Registry of Historic Places under the National Historic Preservation Act of 1966, 16 USC §470 *et seq.* are not automatically covered under this permit. Prior to submitting a NOI, operators must meet the requirements of Appendix III pertaining to historic places, which requires *the operator* to determine whether discharges have the potential to affect a property that is listed or eligible for

⁵ Dredge-related discharges may be covered under the RGP provided the ACE does not intend to issue a general or individual permit under 33 USC §1344 for the activities. If authorized to discharge under the RGP, this general permit does not authorize dredging or disposal of dredge material. This general permit also does not constitute authorization under §404 of any dredging or filling operations. See 33 CFR §330.5 and §§401 and 404 of the CWA.

⁶ Several listed species may apply to operators under this general permit, including, but not limited to: the shortnose sturgeon, Atlantic sturgeon, dwarf wedge mussel, bog turtle, northern redbelly cooter, and northern long-eared bat. The shortnose sturgeon and Atlantic sturgeon are listed under the jurisdiction of the National Marine Fisheries Service (NMFS) and the dwarf wedgemussel, bog turtle, northern redbelly cooter, and northern long-eared bat are listed under the jurisdiction of the United States Fish and Wildlife Service (FWS).

listing on the National Register of Historic Places. If the potential exists, the operator must consult with the appropriate agencies. Operators must submit the results of any consultations with the NOI.

Operators must also comply with applicable State and local laws concerning the protection of historic properties and places. Where a discharge(s) has the potential to affect a property that is either listed or eligible for listing on the National Register of Historic Places, an operator must coordinate with the appropriate State Historic Preservation Officer (SHPO) regarding effects of their discharges.⁷ In the event there is an inadvertent discovery of a historic property on the site, the operator must immediately stop the remediation activity, contact EPA, and coordinate with the appropriate official(s) consistent with the steps outlined in 36 CFR §800.13 of the NHPA regulations.

1.5 Coverage under the RGP

Under this general permit, operators in Massachusetts and New Hampshire may request authorization to discharge into waters of the respective States. To obtain authorization to discharge under this general permit, an operator must:

1. Have a discharge type described in Part 1.1 of this general permit;
2. Have a discharge located in the areas listed in Part 1.2 of this general permit;
3. Meet the eligibility requirements in Part 1.3 and Part 1.4 of this general permit;
4. Submit a complete and accurate Notice of Intent in accordance with the requirements of Part 3 of this general permit; and
5. Receive a written authorization to discharge from EPA.⁸

To maintain coverage under this general permit, the discharge must meet applicable water quality standards and all effluent limitations and requirements included in Part 2 and Part 6, and, if applicable, Part 7 of this general permit. The operator must also meet the requirements included in Part 4 and 5 of this general permit.

PART 2 GENERAL PERMIT FOR REMEDIATION ACTIVITY DISCHARGES

2.1 Effluent Limitations and Monitor-Only Requirements

⁷ For sites located in Massachusetts, the SHPO is currently within the Massachusetts Historical Commission. For sites located in New Hampshire, the SHPO is currently the Director of Cultural Resources within the Department of Cultural Resources.

⁸ Where the RGP refers to correspondence in writing from EPA, such correspondence may be by mail, email and/or facsimile transmittal. An emergency discharge is considered provisionally covered under the RGP immediately upon the initiation of discharges on the condition that: 1) A complete and accurate NOI is submitted in accordance with Part 3.3 within fourteen (14) days after the emergency discharges commence; 2) Notification is provided to EPA in accordance with Part 4.6.3.b and c prior to commencing an emergency discharge when feasible, but no later than twenty-four (24) hours after such discharges commence; and 3) Monitoring proceeds in accordance with the monitoring requirements specified in Part 4.4. as for short-term discharges for the duration of provisional coverage. Provisional coverage is authorized for up to fourteen (14) days, after which the operator must either: 1) Received written authorization to discharge from EPA, unless EPA notifies the operator that their authorization has been delayed or denied; or 2) Submitted a NOT to EPA.

1. Chemical-Specific Effluent Limitations in Massachusetts and New Hampshire
During the period beginning on the effective date and lasting through the expiration date, EPA will authorize the discharges under Part 1.1 of this general permit to receiving waters in Massachusetts and New Hampshire. The effective date of authorization for each discharge covered under this general permit is the date indicated in EPA's written authorization to discharge, lasting through the expiration date of this general permit or written termination of coverage, whichever occurs first. Each discharge shall be limited and monitored as specified in Table 2, below. The applicability of effluent limitations for each Activity Category listed in Table 1 is included in footnote 2, below. Additional limitations and monitoring requirements are specified in Parts 2.2 through 2.5 and Part 4, below.

Table 2: Chemical-Specific Effluent Limitations and Monitor-Only Requirements¹

Parameter ²	Effluent Limitation ^{3,4}	
	TBEL ⁵	WQBEL ⁶
A. Inorganics		
Ammonia ⁷		Report mg/L
Chloride ⁸		Report µg/L
Total Residual Chlorine ⁹	0.2 mg/L	FW= 11 µg/L SW= 7.5 µg/L
Total Suspended Solids		30 mg/L
Antimony ¹⁰	206 µg/L	640 µg/L in MA 4.3 mg/L in NH
Arsenic ¹⁰	104 µg/L	FW= 10 µg/L SW= 36 µg/L
Cadmium ^{11,12}	10.2 µg/L	FW= 0.25 µg/L SW= 8.8 µg/L in MA SW= 9.3 µg/L in NH
Chromium III ^{11,12}	323 µg/L	FW= 74 µg/L SW= 100 µg/L
Chromium VI ^{11,13}	323 µg/L	FW= 11 µg/L SW= 50 µg/L
Copper ^{11,12}	242 µg/L	FW= 9 µg/L SW= 3.1 µg/L
Iron ¹⁰	5,000 µg/L	FW = 1,000 µg/L
Lead ^{11,12}	160 µg/L	FW= 2.5 µg/L SW= 8.1 µg/L
Mercury ¹¹	0.739 µg/L	FW= 0.77 µg/L SW= 0.94 µg/L
Nickel ^{11,12}	1,450 µg/L	FW= 52 µg/L SW= 8.2 µg/L
Selenium	235.8 µg/L	FW= 5.0 µg/L ¹⁰ SW= 71 µg/L ¹¹
Silver ^{11,12}	35.1 µg/L	FW= 3.2 µg/L SW= 1.9 µg/L
Zinc ^{11,12}	420 µg/L	FW= 120 µg/L SW= 81 µg/L

Parameter ²	Effluent Limitation ^{3,4}	
	TBEL ⁵	WQBEL ⁶
Cyanide ¹⁴	178 mg/L	FW = 5.2 µg/L SW = 1.0 µg/L
B. Non-Halogenated Volatile Organic Compounds		
Total BTEX ¹⁵	100 µg/L	
Benzene ¹⁵	5.0 µg/L	
1,4 Dioxane ¹⁶	200 µg/L	
Acetone	7.97 mg/L	
Phenol	1,080 µg/L	300 µg/L
C. Halogenated Volatile Organic Compounds		
Carbon Tetrachloride	4.4 µg/L	1.6 µg/L in MA
1,2 Dichlorobenzene	600 µg/L	
1,3 Dichlorobenzene	320 µg/L	
1,4 Dichlorobenzene	5.0 µg/L	
Total dichlorobenzene	763 µg/L in NH	
1,1 Dichloroethane	70 µg/L	
1,2 Dichloroethane	5.0 µg/L	
1,1 Dichloroethylene	3.2 µg/L	
Ethylene Dibromide ¹⁷	0.05 µg/L	
Methylene Chloride	4.6 µg/L	
1,1,1 Trichloroethane	200 µg/L	
1,1,2 Trichloroethane	5.0 µg/L	
Trichloroethylene	5.0 µg/L	
Tetrachloroethylene	5.0 µg/L	3.3 µg/L in MA
cis-1,2 Dichloroethylene	70 µg/L	
Vinyl Chloride	2.0 µg/L	
D. Non-Halogenated Semi-Volatile Organic Compounds		
Total Phthalates ¹⁸	190 µg/L	FW = 3.0 µg/L in NH SW = 3.4 µg/L in NH
Diethylhexyl phthalate ¹⁸	101 µg/L	2.2 µg/L in MA 5.9 µg/L in NH
Total Group I Polycyclic Aromatic Hydrocarbons ¹⁹	1.0 µg/L	As Individual PAHs
Benzo(a)anthracene ¹⁹	As Total Group I PAHs	0.0038 µg/L
Benzo(a)pyrene ¹⁹		0.0038 µg/L
Benzo(b)fluoranthene ¹⁹		0.0038 µg/L
Benzo(k)fluoranthene ¹⁹		0.0038 µg/L
Chrysene ¹⁹		0.0038 µg/L
Dibenzo(a,h)anthracene ¹⁹		0.0038 µg/L
Indeno(1,2,3-cd)pyrene ¹⁹		0.0038 µg/L
Total Group II Polycyclic Aromatic Hydrocarbons ²⁰	100 µg/L	
Naphthalene ²⁰	20 µg/L	
E. Halogenated Semi-Volatile Organic Compounds		
Total Polychlorinated Biphenyls ²¹	0.000064 µg/L	
Pentachlorophenol	1.0 µg/L	

Parameter ²	Effluent Limitation ^{3,4}	
	TBEL ⁵	WQBEL ⁶
F. Fuels Parameters		
Total Petroleum Hydrocarbons ²²	5.0 mg/L	
Ethanol ²³	Report mg/L	
Methyl-tert-Butyl Ether ²⁴	70 µg/L	20 µg/L in MA
tert-Butyl Alcohol	120 µg/L in MA 40 µg/L in NH	
tert-Amyl Methyl Ether ²⁴	90 µg/L in MA 140 µg/L in NH	

Table 2 Footnotes:

¹ The following abbreviations are used in Table 2, above:

^a TBEL = technology-based effluent limitation

^b WQBEL = water quality-based effluent limitation

^c mg/L = milligrams per liter

^d avg = average

^e µg/L = micrograms per liter

^f FW = freshwater

^g SW = saltwater

² The sample type required for all parameters is grab. Grab samples must be analyzed individually and cannot be composited. See Appendix IX for additional definitions.

³ The effluent limitation and/or monitor-only requirement for any parameter listed applies to any site if the given parameter is present at that site. The effluent limitations and monitor-only requirements also apply to Activity Categories as follows:

^a Activity Category I:

all parameters in contamination type A. Inorganics;
any present in contamination type B. non-halogenated VOCs;
if present in contamination type C. halogenated VOCs;
any present in contamination type D. non-halogenated SVOCs;
if present in contamination type E. halogenated SVOCs; and
any present in contamination type F. fuels parameters.

^b Activity Category II:

all parameters in contamination type A. Inorganics;
any present in contamination type B. non-halogenated VOCs;
any present in contamination type C. halogenated VOCs;
any present in contamination type D. non-halogenated SVOCs;
if present in contamination type E. halogenated SVOCs; and
if present in contamination type F. fuels parameters.

^c Activity Category III-G:
all parameters in contamination type A. Inorganics; and
if present in contamination type B through F.

^d Activity Category IV-G, V-G, VI-G, VII-G, VIII-G:
if present in contamination type A through F.

^e Activity Category III-H, IV-H, V-H, VI-H, VII-H, VIII-H:
all parameters in contamination type A through F apply.

^f When “if present” is noted above, the effluent limitation and/or monitor-only requirement for a parameter in the Contamination Type applies to a site only if the given parameter is known or believed present at that site. When “any present” is noted above, the effluent limitations and/or monitor-only requirements for all parameters in the Contamination Type apply to a site when at least one parameter in that Contamination Type is known or believed present at that site, unless otherwise specified below. See Part 1.1 for additional definitions.

⁴ The limitation type for all parameters is monthly average. See Appendix IX for additional definitions.

⁵ For any parameter with a single effluent limitation, that effluent limitation applies to a site if that parameter is applicable to that site. For any parameter with both a TBEL and a WQBEL, the TBEL applies to a site, at a minimum, if that parameter is applicable to that site.

⁶ For any parameter with both a TBEL and a WQBEL, the WQBEL applies to a site if: 1) *The operator* determines that the WQBEL for a parameter calculated in accordance with Appendix V or VI applies; or 2) EPA or the appropriate State determines that a WQBEL is necessary to meet water quality standards. The calculation of WQBELs shall be as follows: 1) A dilution factor may be used to calculate the WQBEL for a parameter, if allowable and approved by the appropriate State prior to the submission of the NOI to EPA; 2) The calculations are completed in accordance with the instructions provided in Appendix V for sites located in Massachusetts or Appendix VI for sites located in New Hampshire; 3) The WQBEL calculations are included in the NOI submitted to EPA; and 4) The calculated WQBEL is confirmed by EPA in writing. In the event of a calculation error, the operator will be informed of any corrected WQBEL when notified of permit coverage by EPA. Operators are encouraged to use the additional resources provided by EPA at <https://www.epa.gov/region1/npdes/rgp.html> to follow the calculation methodologies for effluent limitations in Appendix V for sites in Massachusetts and Appendix VI for sites in New Hampshire.

⁷ This parameter is expressed as ammonia nitrogen. The minimum level (ML) for analysis must be less than or equal to 0.1 mg/L. See Appendix VII for additional definitions.

⁸ Sites located in Massachusetts must report concentrations of chloride. Sites located in New Hampshire may be subject to §401 certification requirements by the State of New Hampshire, including a numeric effluent limitation for chloride.

⁹ Effluent limitations for TRC only apply if TRC is present or if discharges are likely to contain residual chlorine (e.g., potable water is in use or chlorine is a chemical used for and/or byproduct of treatment). The TBEL applies to all discharges subject to a TRC effluent limitation. The WQBELs are shown with zero dilution. The FW or SW WQBELs are calculated as follows:

^a $11 \mu\text{g/L} \times \text{approved dilution factor for discharges to freshwater waterbodies}$

^b $7.5 \mu\text{g/L} \times \text{approved dilution factor for discharges to saltwater waterbodies}$

If the FW or SW limitation for TRC as calculated above is less than the TBEL for TRC, the FW or SW limitation for TRC applies. The compliance level for TRC is $50 \mu\text{g/L}$.

¹⁰ The TBEL and WQBEL for this parameter is expressed on the basis of total recoverable metal in the water column. The WQBEL is shown with zero dilution. For the antimony WQBEL in NH, EPA anticipates that the applicable revised WQC found in Env-Wq 1700 shall be incorporated into the RGP for sites in New Hampshire, once final. Based on the proposed revision for this value, $640 \mu\text{g/L}$, EPA expects to change the WQBEL from $4.3 \mu\text{g/L}$ to $640 \mu\text{g/L}$.

¹¹ The WQBEL for this parameter is expressed on the basis of dissolved metal in the water column. The WQBEL is shown with zero dilution. The WQBEL shall apply in the form of total recoverable metal in the water column. The WQBEL must be adjusted using the calculation methodology included in Appendix V for sites located in Massachusetts or Appendix VI for sites located in New Hampshire. For the saltwater cadmium WQBEL in NH, EPA anticipates that the applicable revised WQC found in Env-Wq 1700 shall be incorporated into the RGP for sites in New Hampshire, once final. Based on the proposed revision for this value, $7.9 \mu\text{g/L}$, EPA expects to change the WQBEL from $9.3 \mu\text{g/L}$ to $7.9 \mu\text{g/L}$.

¹² This parameter is hardness-dependent in freshwater. The WQBEL shown assumes a hardness of 100 mg/L CaCO_3 . Hardness-dependent metals WQBELs must be adjusted for actual hardness using the calculation methodology included in Appendix V for sites located in Massachusetts or Appendix VI for sites located in New Hampshire. The hardness-dependent calculation requirement does not apply to saltwater discharges.

¹³ The effluent limitations for chromium VI assume this metal is reduced to chromium III as a result of treatment. This metal is not hardness-dependent in freshwater.

¹⁴ The effluent limitations for cyanide only applies if this parameter is present. The TBEL is shown as total cyanide. The WQBEL is shown as free cyanide per liter. However, total cyanide must be reported. The compliance level for total cyanide is $5 \mu\text{g/L}$.

¹⁵ Total BTEX is the sum of: benzene (CAS No. 71432); toluene (CAS No. 108883); ethylbenzene (CAS No. 100-41-4); and (m,p,o) xylenes (CAS Nos. 108-88-3, 106-42-3, 95-47-6, and 1330-20-7). The Volatile Petroleum Hydrocarbon (VPH) method cannot be used for analysis of this parameter.

¹⁶ The effluent limitation for 1,4-dioxane only applies if this parameter and/or 1,1,1 trichloroethane is present. 1,4-dioxane analysis must achieve a ML less than or equal to 50 µg/L. See Appendix VII for additional definitions.

¹⁷ The effluent limitation for EDB only applies if this parameter is present.

¹⁸ Total Phthalates is the sum of: diethylhexyl phthalate (CAS No. 117-81-7); butyl benzyl phthalate (CAS No. 85-68-7); di-n-butyl phthalate (CAS No. 84-74-2); diethyl phthalate (CAS No. 84-66-2); dimethyl phthalate (CAS No. 131-11-3); di-n-octyl phthalate (CAS No. 117-84-0). The effluent limitations for total phthalates and the individual phthalate, diethylhexyl phthalate, only apply if these parameters are present. For the diethylhexyl phthalate WQBEL in NH, EPA anticipates that the applicable revised WQC found in Env-Wq 1700 shall be incorporated into the RGP for sites in New Hampshire, once final. Based on the proposed revision for this value, 2.2 µg/L, EPA expects to change the WQBEL from 5.9 µg/L to 2.2 µg/L.

¹⁹ Total Group I PAHs is the sum of: benzo(a)anthracene (CAS No. 56-55-3); benzo(a)pyrene (CAS No. 50-32-8); benzo(b)fluoranthene (CAS No. 205-99-2); benzo(k)fluoranthene (CAS No. 207-08-9); chrysene (CAS No. 218-01); dibenzo(a,h)anthracene (CAS No. 53-70-3); indeno(1,2,3-cd)pyrene (CAS No. 193-39-5). The compliance level for each individual PAH is 0.1 µg/L using a test method in 40 CFR §136 with selected ion monitoring. The extractable petroleum hydrocarbon (EPH) method cannot be used for analysis of this parameter.

²⁰ Total Group II PAHs is the sum of: acenaphthene (CAS No. 83-32-9); acenaphthylene (CAS No. 208-96-8); anthracene (CAS No. 120-12-7); benzo(g,h,i)perylene (CAS No. 191-24-2); fluoranthene (CAS No. 206-44-0); fluorene (CAS No. 86-73-7); naphthalene (CAS No. 91-20-3); phenanthrene (CAS No. 85-01-8); pyrene (CAS No. 129-00-0). The EPH method cannot be used for analysis of this parameter.

²¹ Total PCBs is the sum of the following aroclors: PCB-1016, PCB-1221, PCB-1232, PCB-1242, PCB-1248, PCB-1254, and PCB-1260. The compliance level for total PCBs is 0.5 µg/L. The effluent limitation for total PCBs only applies if one or more of these parameters are present.

²² The VPH and EPH methods cannot be used for TPH analysis.

²³ The monitor-only requirement for ethanol only applies if ethanol is present (e.g., discharges are likely to contain ethanol at a site where a release of a petroleum product that contains ethanol or where ethanol has been used or stored). Ethanol analysis must achieve a ML less than or equal to 0.4 mg/L. See Appendix VII for additional definitions.

²⁴ The effluent limitation for this parameter only applies if this fuel additive/oxygenate is present (e.g., discharges are likely to contain this fuel additive/oxygenate at a site where a release of a petroleum product that contained this additive/oxygenate occurred or where oxygenates/additives have been used or stored).

2. Effluent Flow Limitations

Effluent flow shall be limited and monitored as specified below.

Table 3: Effluent Flow Limitations¹

Effluent Flow²	Effluent Limitations	
	Design Flow BMP ³	1.0 MGD ⁴

Table 3 Footnotes

¹ Effluent flow limitations apply to all discharges. The limitation type for effluent flow is daily maximum. Effluent flow shall be the sum of the recorded discharge volume for each day (i.e., 24 hours) that effluent is discharged.

² Effluent flow shall be measured after treatment using a continuous measurement flow meter (i.e., a device that records the instantaneous gallons per minute (gpm) and total gallons discharged). If an operator demonstrates that use of a meter is infeasible and such a change is provided to the operator in writing, effluent flow shall be based on an estimate. An estimate of effluent flow shall be determined by the operation time and design flow of the treatment system in use at a site, or the flow rate and dimensions of the outfall at a site, if no treatment system is in use, unless otherwise instructed by EPA and/or the appropriate State. An operator must provide justification in the NOI or through a subsequent Notice of Change (NOC) submitted to EPA for a site if the use of a meter is infeasible.

³ Effluent flow shall not exceed the design flow rate of any treatment system in use at a site, determined by the component of the treatment system with the most restricted flow and as reported in the NOI submitted to EPA for that site. Additional Design Flow BMP requirements are included in Part 2.5.2, below.

⁴ Effluent flow shall not exceed 1.0 MGD, unless an effluent flow limitation greater than 1.0 MGD is approved by EPA and the appropriate State on a case-by-case basis. Effluent flow shall not exceed the flow of receiving water, or alter the structural characteristics of the receiving water. Flow control measures must be used if necessary to dissipate energy and control erosion or scouring during discharge.

2.2 Water Quality-Based Effluent Limitations and Requirements

1. The discharge shall not cause a violation of the water quality standards of the receiving water.
2. The discharge shall be adequately treated to ensure that the receiving water(s) remain free from:
 - a. Pollutants in concentrations or combinations that settle to form harmful deposits, float as foam, debris, scum, form a visible sheen or other visible pollutants.
 - b. Color, odor, taste, or turbidity in concentrations that would render them unsuitable for their designated use, unless such concentrations are naturally occurring.
 - c. Oil, grease and petrochemicals that produce a visible film on the surface of the water, impart an oily taste to the water or an oily or other undesirable taste to the edible portions of aquatic life, coat the banks or bottom of the water course, or become toxic to aquatic life.

3. Toxics Control
 - a. The discharge shall not contain any pollutant or combination of pollutants in toxic amounts or in concentrations or combinations which are toxic to humans, aquatic life, or wildlife, or which would impair the uses designated by the classification of the receiving waters;
 - b. The discharge shall not contain any pollutant or combination of pollutants in concentrations or combinations which violate any applicable water quality standard; and
 - c. If a discharge contains any pollutant which is not limited by this general permit and the operator is otherwise eligible for coverage under this general permit, the operator must specifically disclose the pollutant and concentration in the Notice of Intent to request authorization to discharge that pollutant. EPA and the applicable State may authorize the discharge of additional pollutants on a case-by-case basis, including effluent limitations when necessary, provided that such a discharge does not violate Section 307 or 311 of the CWA or applicable State water quality standards.

4. EPA may impose additional effluent limitations on a case-by-case basis, or require an operator to obtain coverage under an individual permit, if information in the NOI, required reports, or from other sources indicates that the discharges are not controlled as necessary to meet water quality standards. If additional effluent limitations, including monitor-only requirements, are required, EPA will state the reasons for the additional effluent limitations, and will specify the monitoring and reporting requirements.

2.3 Massachusetts General Permit Limitations and Conditions

In addition to the Effluent Limitations and Monitor-Only Requirements included in Part 2.1 and Part 2.2, above, each outfall shall be limited and monitored as specified below.

1. pH Limitations for Discharges in Massachusetts

Table 4: pH Limitations for Discharges in Massachusetts¹

Receiving Water Class²	Effluent Limitations³
Freshwater ⁴	6.5 to 8.3 SU
Saltwater ⁵	6.5 to 8.5 SU

Table 4 Footnotes

¹ pH effluent limitations apply to all discharges.

² There shall be no change from natural background conditions that would impair any use assigned to the class of the receiving water.

³ The limitation type for pH is range. The sample type required for pH is grab. Grab samples shall be analyzed using EPA Method 4500-H⁺-B 2000 or other EPA-approved methods in 40 CFR §136.

⁴ The pH of the effluent shall be in the range of 6.5 to 8.3 standard units (SU) and not more than 0.5 SU outside of the naturally occurring range for freshwater classes.

⁵ The pH of the effluent shall be in the range of 6.5 to 8.5 SU and not more than 0.2 SU outside of the naturally occurring range for saltwater classes.

2. Temperature Limitations for Discharges in Massachusetts

Table 5: Temperature Limitations for Discharges in Massachusetts¹

Receiving Water Class		Effluent Limitation ^{2,3}	ΔT Limitation ⁴
Class A	Warm Water Fishery	83°F	≤ 1.5°F
	Cold Water Fishery	68°F	≤ 1.5°F
Class B	Warm Water Fishery	83°F	≤ 5°F
	Cold Water Fishery	68°F	≤ 3°F
	Lakes and Ponds	83°F Warm Water Fishery 68°F Cold Water Fishery	≤ 3°F in epilimnion
Class SA	---	85°F 80°F (mean)	≤ 1.5°F
Class SB	July to September	85°F 80°F (mean)	≤ 1.5°F
	October to June	85°F 80°F (mean)	≤ 4°F

Table 5 Footnotes

¹ Temperature effluent limitations apply on a case-by-case basis if heat is indicated as a pollutant in the NOI submitted to EPA, or if EPA and/or the State determine a discharge is likely to contain residual heat.

² The limitation type for temperature is daily maximum. The sample type required for temperature is grab. Grab samples shall be analyzed using EPA Method 2550-B-2000 or other EPA-approved methods in 40 CFR §136.

³ The effluent shall not exceed the maximum temperature noted in Table 5, above for the class of the receiving water. There shall be no change from natural background that would impair any uses assigned to this class including those conditions necessary to protect normal species diversity, successful migration, reproductive functions or growth of aquatic organisms.

⁴ The rise due to a discharge shall not exceed the change in temperature (ΔT) noted for each class in Table 5, above. Change in temperature from background shall be determined by subtracting the temperature of the effluent from the temperature of the receiving water measured a point immediately upstream of a discharge(s) zone of influence at a reasonably accessible location.

3. Massachusetts State Permit Conditions

- a. This discharge permit is issued jointly by the EPA and the MassDEP under Federal and State law, respectively. As such, all the terms and conditions of this permit are

hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MassDEP pursuant to M.G.L. Chapter 21 §43, except where exempted under 310 CMR 40.0042(2) of the Massachusetts Contingency Plan. Each agency shall have the independent right to enforce the terms and conditions of this permit. Any modification, suspension or revocation of this permit shall be effective only with respect to the agency taking such action, and shall not affect the validity or status of this permit as issued by the other agency, unless and until each agency has concurred in writing with such modification, suspension or revocation. In the event that any portion of this permit is declared invalid, illegal or otherwise issued in violation of State law, such permit shall remain in full force and effect under federal law as an NPDES permit issued by the EPA. In the event that this permit is declared invalid, illegal or otherwise issued in violation of federal law, this permit shall remain in full force and effect under State law as a permit issued by the Commonwealth of Massachusetts, except where exempted under 310 CMR 40.0042(2) of the Massachusetts Contingency Plan.

- b. An authorization to discharge under this General Permit, where the activity discharges to a municipal or private storm drain owned by another party, does not convey any rights or authorization to connect to that drain. If the storm sewer system is within an urbanized area, the applicant must notify the MS4 operator of the proposed discharge.
- c. At any time MassDEP determines that additional requirements are necessary to protect water quality and in lieu of requiring a discharger covered under a general permit to obtain an individual permit (314 CMR 3.06(8)), MassDEP may require a discharger to undertake additional control measures, BMPs, or other actions. MassDEP may exercise its authority to require the discharger to take these actions by imposing a condition in the general permit to that effect, or by taking an enforcement action against the discharger, or by any other means. Any such conditions shall be supplied to the permittee in writing.

2.4 New Hampshire General Permit Limitations and Conditions

In addition to the Effluent Limitations and Monitoring Requirements included in Part 2.1 and Part 2.2, above, each outfall shall be limited and monitored as specified below.

1. pH Limitations for Discharges in New Hampshire

Table 6: pH Limitations for Discharges in New Hampshire¹

Receiving Water Class	Effluent Limitations ^{2,3}
Class B	6.5 to 8.0 SU

Table 6 Footnotes

¹ pH effluent limitations apply to all discharges.

² The limitation type for pH is range. The sample type required for pH is grab. Grab samples shall be analyzed using EPA Method 4500-H⁺-B 2000 or other EPA-approved methods in 40 CFR §136.

³ The pH of the effluent shall be in the range of 6.5 to 8.0 standard units unless a different range is allowed in accordance with Part 2.4.3.b and 5.1.2.c.

2. Temperature Limitations for Discharges in New Hampshire

Table 7: Temperature Limitations in New Hampshire¹

Receiving Water Class		Effluent Limitation ^{2,3}
Class B	Warm Water Fishery	83°F
	Cold Water Fishery	68°F

Table 7 Footnotes

¹ Temperature effluent limitations apply on a case-by-case basis if heat is indicated as a pollutant in the NOI submitted to EPA, or if EPA and/or the State determine a discharge is likely to contain residual heat.

² The limitation type for temperature is daily maximum. The sample type required for temperature is grab. Grab samples shall be analyzed using EPA Method 2550-B-2000 or other EPA-approved methods in 40 CFR §136.

³ The effluent shall not exceed the maximum temperature noted in Table 7, above for the class of the receiving water. Any stream temperature increase associated with the discharge(s) shall not be such as to appreciably interfere with the uses assigned to the receiving water.

3. New Hampshire State Permit Conditions

- a. This NPDES permit is issued by the EPA under Federal law. Upon final issuance by the EPA, the NHDES may adopt this permit, including all terms and conditions, as a State permit pursuant to RSA 485-A:13. Each agency shall have the independent right to enforce the terms and conditions of this permit. Any modification, suspension or revocation of this permit shall be effective only with respect to the agency taking such action, and shall not affect the validity or status of the permit as issued by the other agency, unless and until each agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this permit is declared invalid, illegal, or otherwise issued in violation of State law, such permit shall remain in full force and effect under federal law as a NPDES permit issued by the EPA.
- b. An operator may request a change in the permitted pH range of 6.5-8.0 standard units (SU) if the operator can demonstrate to NHDES: 1) that the range should be widened due to naturally occurring conditions in the receiving water; or 2) that the naturally occurring receiving water pH is not significantly altered by the authorized discharge. The scope of any demonstration project must receive prior approval from NHDES. The upstream or background sampling location identified by the operator shall be approved by NHDES prior to the initiation of sampling. In addition, the upstream and effluent sampling is to occur as close in time as possible, but not greater than 1 hour

- apart. In no case, shall the above procedure result in pH limits less restrictive than 6.0–9.0 SU. Written approval from NHDES must be submitted to EPA for consideration of this change (see Part 5.1, below).
- c. The operator shall not at any time, either alone or in conjunction with any person or persons, cause directly or indirectly the discharge of waste into the said receiving water unless it has been treated in such a manner as will not lower the legislated water quality classification or interfere with the uses assigned to said water by the New Hampshire Legislature (RSA 485-A:13).
 - d. Pursuant to New Hampshire Statute RSA 485-A:13I(c), any person responsible for a bypass or upset at a wastewater facility shall give immediate notice of a bypass or upset to all public or privately owned water systems drawing water from the same receiving water and located within 20 miles downstream of the point of discharge regardless of whether or not it is on the same receiving water or on another surface water to which the receiving water is tributary. Wastewater facility is defined at RSA 485-A:2XIX as the structures, equipment, and processes required to collect, convey, and treat domestic and industrial wastes, and dispose of the effluent and sludge. The operator shall maintain a list of persons, and their telephone numbers, who are to be notified immediately by telephone. In addition, written notification, which shall be postmarked within 3 days of the bypass or upset, shall be sent to such persons.
 - e. An authorization to discharge under this general permit, where the activity discharges to a municipal or private storm drain owned by another party, does not convey any rights or authorization to connect to that drain.
 - f. Persons filing a NOI for a new discharge that will last for one year or more will be required to supply NHDES with additional water quality data for the discharge and the receiving water. The data must be collected during both low flow and high flow (spring/autumn) conditions in accordance with an approved Scope of Work and Sampling/Analysis Plan. NHDES recommends that applicants meet with staff of the Wastewater Engineering Bureau at least one year prior to the date of the commencement of the discharge.
 - g. At any time that NHDES determines that additional water quality certification requirements are necessary to protect water quality, an individual discharger may be required to meet additional conditions to obtain coverage or to continue coverage under this general permit. Any such conditions shall be supplied to the operator in writing.

2.5 Special Conditions

1. Best Management Practices Plan (BMPP)

Operators must develop, implement, and maintain a BMPP for the discharges covered under this general permit.

- a. The BMPP shall provide a plan for compliance with the terms of this general permit and must document the implementation of control measures, including best management practices (BMPs), to meet the following non-numeric technology-based effluent limitations:
 - i. Minimize the potential for violations of the terms of this general permit, taking corrective actions, when necessary;

- ii. Minimize the number and quantity of pollutants and/or the toxicity generated, discharged, or potentially discharged at the site;
 - iii. Minimize discharges of pollutants from the remediation activities, including: material storage areas, on-site control measures and materials, treatment and material handling areas, loading and unloading operations, and accidental leaks or spills, including implementation of material compatibility and good housekeeping practices; and
 - iv. Use pollution control technologies when necessary to meet the effluent limitations and requirements in this general permit, including the proper operation and maintenance of any treatment system.
- b. The BMPP must include the following information, at a minimum:
- i. Name and location of the site;
 - ii. Any necessary system schematics, drawings or maps, including up to date site plans with a detailed outfall diagram;
 - iii. Identification and contact information for the operator(s);
 - iv. Identification of potential sources of pollution;
 - v. Description of the specific control measures, including BMPs, the operator will take to reduce the pollutants associated with the following:
 - 1) Influent and effluent;
 - 2) Storage and handling areas;
 - 3) Site runoff;
 - 4) On-site transfer;
 - 5) Loading or unloading operations;
 - 6) Spillage or leaks;
 - 7) Sludge and waste disposal; and
 - 8) Drainage from material storage and handling areas.
 - vi. Specific control measures, including BMPs, used to meet the requirements of this general permit and including the specific BMPs required for all discharges in Part 2.5.2, below.
- c. The BMPP must be prepared in accordance with good engineering practices and must be a written document (hardcopy or electronic). The BMPP may either be a stand-alone document or may be incorporated into any other BMPP, Pollution Prevention Plan, Spill Prevention Control and Counter Measures (SPCC) Plan, or other plan developed for the site as required under other permits or programs.⁹ Operators must provide BMPP certification in the NOI submitted to EPA for a site as follows:
- i. Operators with existing discharges without an existing BMPP seeking coverage under this general permit shall develop and implement the BMPP and shall certify as part of the NOI that a BMPP meeting the requirements of this general permit has been developed and implemented;
 - ii. Operators with existing discharges with an existing BMPP seeking coverage under this general permit shall revise the BMPP to meet the terms of this general permit and shall certify as part of the NOI that a BMPP meeting the requirements of this general permit has been developed and implemented;

⁹ Operators may refer to *Guidance Manual for Developing Best Management Practices (BMPs)* (EPA-833-B-93-004, 1993).

- iii. Operators with emergency discharges shall certify as part of the NOI that the BMP requirements included in Part 2.5.2 were met during provisional coverage and, if discharges will continue, shall certify as part of the NOI that a BMPP meeting the requirements of this general permit has been developed and implemented; and
 - iv. Operators initiating new discharges shall certify as part of the NOI that a BMPP meeting the requirements of this general permit will be developed and implemented upon initiation of discharge.
- d. The operator must certify the BMPP as follows:
- i. On or before January 15th each calendar year, or upon Notice of Termination (NOT) if a discharge lasts less than one year, the operator must prepare a statement certifying that the requirements of the BMPP were met for the previous calendar year, or for the duration of discharge if a discharge lasts less than a full calendar year;
 - ii. Each certification shall state whether the operation and maintenance activities were conducted, results recorded, and records maintained, and must indicate whether the discharges are in compliance with the requirements of the BMPP and meet the effluent limitations included in this general permit;
 - iii. The required certification statements must be maintained with a complete, up to date BMPP on site or at the location of the principal operator identified in the NOI and made available for inspection by EPA or the State;
 - iv. Any amendments to the BMPP resulting from any change which occurred at the site that increases the generation of pollutants, or the release or potential release of pollutants to the receiving water, or changes the operation and maintenance procedures covered by the BMPP must be explained in the certification for the reporting period in which the change(s) occurred;
 - v. Each certification must be signed in accordance with 40 CFR §122.22; and
 - vi. Failure to prepare the required certifications may result in permit termination and/or penalties imposed by EPA, the State, or both.

2. Best Management Practices (BMPs)

Operators must implement control measures, including the following best management practices (BMPs), to meet the effluent limitations and requirements in this general permit. The BMPs specified below are required for all operators.¹⁰

- a. An Effluent Flow BMP must include, at a minimum:
 - i. Flow control measures that prevent discharge(s) in exceedance of the design flow of the discharge (i.e., the maximum flow through the component with the lowest limiting capacity); and
 - ii. Documentation of the method(s) for measuring effluent flow.
- b. A Preventative Maintenance BMP must include, at a minimum:
 - i. Documented procedures and protocols that ensure all control measures, including all treatment system components and related appurtenances used to achieve the limitations in this general permit remain in effective operating condition and do not result in leaks, spills, and other releases of pollutants;

¹⁰ Additional guidance for BMPs can be found in *Guidance Manual for Developing Best Management Practices* (EPA 833-B-93-004).

- ii. A maintenance schedule for all treatment system components and related appurtenances used to meet the limitations of this general permit; and
 - iii. Records of the completion of regular maintenance activities.
- c. A Site Management BMP must include, at a minimum:
 - i. Control measures that ensure proper management of solid and hazardous waste and prevent solids, sludge, or other pollutants removed in the course of treatment or control of water and wastewaters from entering Waters of the United States;
 - ii. Run-on and runoff management practices which divert, infiltrate, reuse, contain, or otherwise reduce extraneous uncontaminated waters and minimize the extent to which such uncontaminated waters commingle with remediation activity discharges; and
 - iii. Water quality control measures must ensure that the discharges covered by this general permit do not adversely affect existing water quality by preventing any erosion, stream scouring, or sedimentation, and/or any direct or indirect discharge which contributes additional pollutants.
- d. A Pollutant Minimization BMP must include, at a minimum:
 - i. Identification and assessment of the type and quantity of pollutants, including their potential to impact receiving water quality;
 - ii. Water quality control measures must ensure dilution is not used as a form of treatment, or as a means to achieve the limitations and requirements in this general permit; and
 - iii. Selection, design, installation and proper operation and maintenance of pollution control technologies necessary to meet the limitations and requirements in this general permit. The treatment technologies may include, but are not limited to any combination of the following:¹¹
 - 1) Adsorption/Absorption
 - 2) Advanced Oxidation Processes
 - 3) Air Stripping
 - 4) Granulated Activated Carbon (GAC)/Liquid Phase Carbon Adsorption
 - 5) Ion Exchange
 - 6) Precipitation/Coagulation/Flocculation
 - 7) Separation/Filtration
- e. An Administrative Controls BMP must include, at a minimum:
 - i. Documentation of the site security procedures appropriate for the treatment and other systems related to the NPDES discharge(s);
 - ii. Documentation of employee training conducted at least annually (or once, for discharges lasting less than one year) for site personnel who have direct or indirect responsibility for ensuring compliance with this general permit;
 - iii. Procedures for initiating corrective action and completing within a reasonable timeframe: evaluation, and revision (i.e., repair, modification, or replacement), if necessary, of any control measure used at the site if the control measure is identified as missing, installed incorrectly, or ineffective in

¹¹ Descriptions of these treatment technologies can be found in the Federal Remediation Technology Roundtable *Remediation Technologies Screening Matrix and Reference Guide, Version 4.0 (2007)* available at <http://www.frtr.gov/scrntools.htm>.

ensuring the discharge meets applicable water quality standards and/or effluent limitations and requirements in this general permit. The following actions are required upon discovery of a violation of a permit limitation or requirement, at a minimum:

- 1) The discharge must stop immediately, unless the operator is otherwise instructed by EPA and/or the appropriate State;
 - 2) The operator must immediately take all reasonable steps to minimize or prevent the discharge of pollutants until a permanent solution is achieved;
 - 3) Notification must be provided to EPA and to the appropriate State via telephone, e-mail or other verbal or written means in accordance with Part 4.6.3.b or c within twenty-four (24) hours; and
 - 4) The cause of the permit violation must be identified and corrective action must be initiated within seventy-two (72) hours, if necessary, prior to resuming discharge in accordance with Part 4.3, or Part 4.1.2 when a treatment system is not in use, unless otherwise instructed by EPA and/or the appropriate State.
- iv. A schedule for and record of routine inspections conducted at least monthly by site personnel who have direct knowledge of the remediation activity at the site, the control measure(s) in use at the site, and the ability to assess the effectiveness of any control measure(s) in use at the site to meet the limitations and requirements of this general permit. Routine inspections must, at a minimum:
- 1) Assess the influent, effluent, treatment system, and remediation activity areas, including the outfall, where practicable;
 - 2) Identify any uncontrolled leaks, spills or discharges; and
 - 3) Conduct visual inspection for indicators of pollution, including, but not limited to: objectionable aesthetic properties including color, odor, clarity, floating solids, settled solids, suspended solids, foam, and oil sheen.
- f. Quality Assurance/Quality Control (QA/QC) BMP must include, to the maximum extent practicable:
- i. A description of applicable monitoring requirements;
 - ii. A map and/or treatment system diagram indicating the location of each monitoring point with a geographic identifier (i.e., latitude and longitude coordinates);
 - iii. Specifications for the number of samples, type of sample containers, type of preservation, holding times, type and number of quality assurance field samples (i.e., matrix spiked and duplicate samples and sample blanks), sample preparation requirements (e.g., sampling equipment calibration, clean sampling procedures), and sample storage and shipping methods, including EPA QA/QC and chain-of-custody procedures;¹²
 - iv. Name(s), address(es), and telephone number(s) of the laboratories used by the operator;

¹² Described in *Requirements for Quality Assurance Project Plans* (EPA/QA/R-5) and *Guidance for Quality Assurance Project Plans* (EPA/QA/G-5).

- v. Specifications for analytical methods, analytical detection and quantitation limits for each required parameter, and laboratory data delivery and documentation requirements;
 - vi. A schedule for review of sample results, which must be reviewed by the operator no more than seventy-two (72) hours from receipt of the results; and
 - vii. A description of data validation and data reporting processes.
- g. Materials Management BMP must include, at a minimum:
- i. Good housekeeping practices and/or control measures that maintain areas that are potential sources of pollutants, including, but not limited to: contaminated soil and groundwater and treatment system chemicals, additives, materials or appurtenances;
 - ii. Material compatibility practices and/or control measures must ensure safe handling, use and storage of materials including, but not limited to chemicals and additives (e.g., algaecides/biocides, antifoams, coagulants, corrosion/scale inhibitors/coatings, disinfectants, flocculants, neutralizing agents, oxidants, oxygen scavengers, pH conditioners, surfactants and bioremedial agents, including microbes);
 - iii. For any chemical and/or additive used or stored at a site, operators must document, at a minimum:
 - 1) Product name, chemical formula, and manufacturer of the chemical or additive;
 - 2) Purpose or use of the chemical or additive;
 - 3) Safety Data Sheet (SDS) and Chemical Abstracts Service (CAS) Registry number for each chemical or additive;
 - 4) The frequency (e.g., hourly, daily), duration (e.g., hours, days), magnitude (i.e., frequency as maximum and average concentration), and method of application for the chemical or additive;
 - 5) Any material compatibility risks for storage of the chemical or additive;
 - 6) If available, the vendor's reported aquatic toxicity (NOAEL and/or LC₅₀ for aquatic organism(s)); and
 - 7) A description of the material management control measures employed (e.g., inventory, containment devices, protected storage building(s) and/or cabinet(s)) and any measures taken to ensure material compatibility.
 - iv. Spill prevention practices and spill control measures, including other handling and collection methods, when necessary (e.g., containment devices), must reduce spills and leaks from the treatment system and the release of chemical and/or additives in use at a site. The following actions are required upon detection of a leak, spill, or other release containing a hazardous substance or oil, such as visual observation of a visible sheen, at a minimum:
 - 1) The discharge must stop immediately;
 - 2) Notification must be provided to EPA in accordance with Part 4.6.3.b or c within twenty-four (24) hours;¹³

¹³ State, tribal, or local requirements may necessitate additional notification to local emergency response, public health, and/or drinking water supply agencies.

- 3) The source of the leak, spill or other release must be identified and corrective action must be taken in accordance with Part 2.5.2.e, above, if necessary, prior to resuming discharge, unless instructed otherwise by EPA and/or the appropriate State; and
- 4) When a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302 occurs, the operator must document a description of the release, the circumstances leading to the release, the date of the release, a description of any corrective actions taken and the date such corrective actions are completed.

3. Conditions for Discharges of Chemicals & Additives

- a. An operator shall not discharge any chemical or additive, including, but not limited to: algaecides/biocides, antifoams, coagulants, corrosion/scale inhibitors/coatings, disinfectants, flocculants, neutralizing agents, oxidants, oxygen scavengers, pH conditioners, surfactants and bioremedial agents, including microbes, which was not reported in the NOI submitted to EPA for a site or provided through a subsequent NOC submitted to EPA.
- b. Upon authorization to discharge, chemicals and/or additives which have been disclosed to EPA and the appropriate State may be discharged up to the frequency and level disclosed, provided that such discharge does not violate Section 307 or 311 of the CWA or applicable state water quality standards.
- c. EPA and/or the appropriate State may request additional information to provide authorization to discharge chemicals and/or additives, including but not limited to: WET testing.
- d. To request authorization to discharge chemicals and/or additives in the NOI submitted to EPA for a site, or in a subsequent NOC, an operator must submit the following information in writing, at a minimum, in accordance with Appendix IV, Part 2 of this general permit:
 - i. All information required in Part 2.5.2.g.iii, above;
 - ii. An explanation which demonstrates that the addition of such chemicals:
 - 1) Will not add any pollutants in concentrations which exceed permit effluent limitations;
 - 2) Will not exceed any applicable water quality standard; and
 - 3) Will not add any pollutants that would justify the application of permit conditions that are different from or absent in this permit; or
 - 4) An operator may demonstrate through sampling and analysis using sufficiently sensitive test methods that each of the 126 priority pollutants in CWA Section 307(a) and 40 CFR Part 423.15(j)(1) are non-detect in discharges with the addition of the chemicals and/or additives.

4. Conditions for Pipeline and Tank Dewatering

In addition to meeting the BMP requirements for all discharges, above, discharges from pipeline and tank dewatering must meet the following requirements:

- a. Discharges of tank bottom water are prohibited;

- b. Pipeline(s), tank(s) or similar structures and appurtenances must be pre-cleaned to remove scale, solids, and residues unless these structures are used only for water storage;¹⁴
- c. Water quality control measures must be implemented if potable water, groundwater or surface waters other than the receiving water will be discharged that prevent lower quality waters being transferred to higher quality waters;
- d. Discharges of chemicals and/or additives used for tank or pipeline cleaning, repair or installation are prohibited unless in accordance with Part 2.5.3, above; and
- e. Discharges of sludge generated in the dewatering of the pipelines or tanks is prohibited.

PART 3 NOTICE OF INTENT (NOI)

3.1 Obtaining Coverage under this General Permit

1. To obtain authorization to discharge under this general permit, an operator must:
 - a. Have a discharge type described in Part 1.1, above;
 - b. Have a discharge located in the areas listed in Part 1.2, above;
 - c. Meet the eligibility requirements in Part 1.3 and Part 1.4, above;
 - d. Submit a complete and accurate Notice of Intent (NOI) in accordance with the requirements of this part, below; and
 - e. Receive a written authorization to discharge from EPA.¹⁵
2. Operators with one or more discharges eligible for coverage under this general permit must submit a NOI to EPA prior to the initiation of such discharge(s), except emergency discharges, as noted in Part 1.5, above. The NOI must be complete (i.e., contain all of the information required in the suggested NOI format included in Appendix IV, Part 1), accurate (i.e., prepared in accordance with the instructions provided in Appendix IV, Part 1), and signed by the operator in accordance with the signatory requirements of 40 CFR §122.22. In the event EPA and/or the appropriate State determines a NOI is incomplete, EPA will notify the operator of the information required for completeness and specify a timeframe for submission of the information. EPA may request additional information, including analytical data, as authorized under CWA §308(a), 33 U.S.C. §1318(a), when the information is necessary to adequately review the NOI and make a determination of coverage.

3.2 NOI Options

For purposes of this general permit, the NOI consists of either the suggested NOI format in Appendix IV, Part 1 of this permit or another form of official correspondence containing all of the information required in the NOI instructions in Appendix IV, Part 1 of this general permit. All NOIs submitted after **December 21, 2020** must be submitted electronically.

¹⁴ Discharges resulting from the hydrostatic testing of pipelines or tanks must follow the procedures detailed in the American Petroleum Institute 653 Standard and/or applicable State regulations.

¹⁵ See footnote 7, above.

1. Under 310 CMR 40.0000, as a matter of *state law*, this general permit only applies to discharges that are not subject to the Massachusetts Contingency Plan (MCP). Therefore, sites subject to the MCP are not required to submit a copy of the NOI to MassDEP, the State form (BRPWM12, or as revised), or pay an application fee for this general permit. Any operator with a site that is not subject to the MCP must submit the State form and fee to MassDEP when submitting a copy of the NOI to MassDEP. Municipalities are fee-exempt, but must send a copy of the transmittal form to MassDEP.¹⁶ EPA's suggested NOI format is found in Appendix IV, Part 1.
2. The State of New Hampshire does not have a State application form. Operators of sites located in New Hampshire are encouraged to submit EPA's suggested NOI format, found in Appendix IV, Part 1, to NHDES.

3.3 NOI Timeframes

1. **Existing Discharges:** For any existing discharge (i.e., discharges in accordance with the 2010 Remediation General Permit that expired on September 9, 2015), the following applies:
 - a. Operators of existing discharges must submit a NOI to EPA, and the appropriate State, when required, for coverage under this general permit **no later than ninety (90) days after the effective date of this general permit**. For operators with authorization to discharge under the 2010 Remediation General Permit that submit a complete NOI under this general permit within the 90-day period, coverage under the 2010 Remediation General Permit remains administratively continued until EPA authorizes the discharge under this general permit, or notifies the operator of permit termination. For enforcement purposes, failure to submit a NOI within 90 days of the effective date of this general permit for an existing discharge will be considered to be discharging without a permit. A NOI is not required if the operator submits a NOT before the 90-day period expires. See Appendix IV, Part 1 and/or Part 3.
2. **Emergency Discharges:** For any emergency discharge, including discharges conducted in response to a public emergency (e.g., natural disaster, which includes, but is not limited to: tornadoes/hurricanes/tropical storms, earthquakes, mud slides, or extreme flooding conditions; or widespread disruption in essential public services), the following applies:
 - a. Operators of emergency discharges must submit a NOI to EPA, and the appropriate State, when required, **no later than fourteen (14) days after the discharges commence**. An operator is required to provide documentation in the NOI submitted to EPA to substantiate the occurrence of a public emergency.
3. **New Discharges:** For any discharge not considered an existing or emergency discharge, including sites that received authorization to discharge under the 2010 Remediation General Permit but subsequently submitted a NOT or sites covered under other discharge permits that wish to seek coverage under this general permit, the following applies:

¹⁶ For State forms, see <http://www.mass.gov/eea/agencies/massdep/>.

- a. Operators of new discharges must submit a NOI to EPA, the appropriate State, when required, and the municipality in which the proposed discharge is located **at least seven (7) days prior to the commencement of discharge.**
4. EPA will post NOIs received for a minimum of seven (7) days on EPA's RGP website.¹⁷

3.4 NOI Requirements

1. For each eligible discharge, the NOI submitted to EPA for a site must include, in writing, all information required in the suggested NOI format, found in Appendix IV, Part 1, including:
 - a. General site information;
 - b. Receiving water information;
 - c. Source water information;
 - d. Discharge information;
 - e. Treatment system information;
 - f. Treatment chemical/additive information;
 - g. Determination of Endangered Species Act Eligibility;
 - h. Documentation of National Historic Preservation Act Requirements;
 - i. Supplemental Information; and
 - j. Signature Requirements.
2. The NOI must meet the monitoring requirements specified in Part 4, including monitoring locations, test methods and minimum level and detection limit requirements, Appendix VII, and Appendix IX, Standard Conditions, for the parameters required for the applicable activity category or categories.
3. Additional NOI monitoring is required, as specified in Part 4.2, below and Appendix IV, Part 1.
4. All operators must meet the requirements of Appendix I, regarding obligations under the Endangered Species Act, and Appendix III, regarding obligations under the National Historic Preservation Act.
5. The NOI must be signed by the operator(s) of the site, as defined in Part 1, above, in accordance with the signatory requirements of 40 CFR §122.22.
6. All operators must submit a NOI to the appropriate State in accordance with Part 4.6, when required, as noted in Appendix IV, Part 1, prior to the initiation of discharges.
7. The operator must provide certification that the following notifications have been given prior to the initiation of such discharge(s):
 - a. All operators must notify the municipality in which the proposed discharge will be located. The operator must provide a copy of the NOI to the municipality, if

¹⁷ Available at: <https://www.epa.gov/region1/npdes/rgp.html>.

- requested. Authorization to discharge under this general permit does not convey any authorization from a municipality.
- b. All operators intending to discharge to a municipal or non-municipal storm sewer system must notify the owner of this system, and must obtain permission to discharge to this system prior to initiating discharges. An operator must include a description of any requirements imposed by the owner of the municipal or non-municipal storm sewer system to which they are proposing discharge and certify that these conditions will be complied with. Authorization to discharge under this general permit does not convey any rights or authorization to connect to a municipal or non-municipal storm sewer system.
 - c. Where there is separate ownership and/or different operators of the area where discharges to be covered under this general permit will occur and the area associated with discharges covered by other discharge permit(s) (e.g., EPA's Construction General Permit and EPA's Multi-Sector General Permit), the operator seeking authorization to discharge under this general permit must certify that notification has been given to the owner/operator of the area associated with the activities covered by the other discharge permit(s) in the NOI submitted to EPA for that site.

3.5 When the Director May Require Application for an Individual NPDES Permit

The Director may require any operator authorized by or requesting coverage under this general permit to apply for and obtain an individual NPDES permit. Any interested person may petition the Director to take such action. Instances where an individual permit may be required include the following:

1. A determination under 40 CFR §122.28(b)(3), including:
 - a. A change has occurred in the availability of the demonstrated technology of practices for the control or abatement of pollutants applicable to the point source(s);
 - b. Effluent limitation guidelines are promulgated for the point source(s) covered by this permit;
 - c. A Water Quality Management Plan or Total Maximum Daily Load containing requirements applicable to such point source(s) is approved and inconsistent with this permit;
 - d. Circumstances have changed since the time of the request to be covered so that the discharger is no longer appropriately controlled under the general permit, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary; and
 - e. The discharge(s) is a significant contributor of pollutants.
2. The discharger is not in compliance with the conditions of this general permit.
3. The discharge(s) is in violation of State water quality standards for the receiving water.
4. Actual or imminent harm to aquatic organisms, including ESA or human health, is identified.

5. The discharge adversely impacts any federally-managed species for which critical habitat (under ESA) or EFH has been designated.
6. The point source(s) covered by this general permit no longer:
 - a. Involves the same or substantially similar types of operations;
 - b. Discharges the same types of wastes;
 - c. Requires the same effluent limitations or operating conditions; or
 - d. Requires the same or similar monitoring.
7. In the opinion of the Director, is more appropriately controlled under an individual or alternate general permit.

If the Director requires that an individual permit be issued, the operator will be notified in writing that an individual permit is required, and will be given a brief explanation of the reasons for this decision. When an individual NPDES permit is issued to an operator otherwise subject to this general permit, the applicability of this permit to that operator is automatically terminated upon the effective date of the individual permit.

3.6 When an Individual Permit May Be Requested

Any operator may request to be excluded from the coverage under this general permit by applying for an individual NPDES permit. When an individual NPDES permit is issued to an operator otherwise subject to this general permit, the applicability of this permit to that owner or operator is automatically terminated on the effective date of the individual permit.

3.7 EPA Determination of Coverage

Any operator may request to be covered under this general permit but the final authority rests with EPA. Coverage under this general permit will not be effective until EPA has reviewed the NOI, made a determination that coverage under this general permit is authorized, and has notified the operator in writing of its determination. The effective date of coverage will be the date indicated in the authorization to discharge provided by EPA in writing. Any additional State conditions will be provided in writing.

Any operator authorized to discharge under the RGP will receive written notification from EPA. Failure to submit to EPA a NOI to be covered and/or failure to receive from EPA written notification of permit coverage means that the operator is not authorized to discharge under this general permit. An operator that is denied permit coverage by EPA is not authorized under this general permit to discharge to Waters of the United States.

PART 4 MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

In addition to any monitoring, record-keeping and reporting requirements specified in Parts 1, 2 and 3, above, and in the Standard Conditions of this general permit (Appendix IX), the following monitoring, record-keeping and reporting requirements apply to discharges covered under this general permit. EPA may notify the operator of additional monitoring requirements. Any such

notice will briefly state the reasons for the monitoring and will specify the monitoring and reporting requirements.

4.1 Monitoring Requirements

Sampling of the influent, effluent and/or receiving water must yield data representative of the discharge under authority of Section 308(a) in accordance with 40 CFR §122.41(j), §122.44(i), and §122.48. The sample type for all monitoring locations is grab. Each grab sample must be analyzed and cannot be composited.

1. Monitoring Locations

- a. **Influent** (i.e., the untreated influent) samples shall be taken at a consistent point defined by geographic coordinates in the NOI (i.e., latitude and longitude), immediately prior to treatment of the water, before entering any treatment system component. If the influent sampling location as defined has not been established prior to submittal of the NOI, the operator must provide a detailed description of the sample location(s) selected such that an inspector from EPA or the State could replicate the sample upon site inspection. The following requirements apply:
 - i. Influent samples must be collected from areas of contamination, when known;
 - ii. The influent sample must ensure that the highest concentrations of pollutants that may be treated and/or discharged are represented;
 - iii. If a monitoring well is used as the sampling location for the influent, the monitoring well must be located within the maximum extent of contamination.
 - iv. If influent is generated from multiple areas of a site across which contamination types and/or concentrations can vary, the operator must collect additional samples such that the data provided are representative of the expected influent characteristics, and each location must be defined;¹⁸
 - v. If the influent concentrations are unknown or vary widely across a site, additional samples must be collected that are representative of the expected variability, and each location must be defined.¹⁹
- b. **Effluent** (i.e., the treated effluent) samples shall be taken at a consistent point defined by geographic coordinates in the NOI (i.e., latitude and longitude), following all treatment, immediately prior to discharge to the receiving water, private or municipal separate storm sewer system, or, if the treated effluent is commingled with another discharge, prior to such commingling.
- c. **Receiving water** samples shall be taken at a consistent point defined by geographic coordinates in the NOI (i.e., latitude and longitude), from a reasonably accessible location, upstream or otherwise immediately outside of the zone of influence of the discharge or other site activities that could affect water quality.

¹⁸ Operators of such sites are encouraged to contact EPA in accordance with Part 4.6.3 for assistance in influent sample design.

¹⁹ See footnote 18, above.

2. Monitoring Frequency

- a. The routine monitoring frequency for discharges covered under this general permit is **monthly** (i.e. at least one sample per each calendar month) for both **influent and effluent**, as follows:
 - i. Beginning no more than thirty (30) days from the effective date of permit coverage for existing discharges, no more than thirty (30) days following the end of provisional coverage for emergency discharges, and no more than thirty (30) days following completion of the treatment system startup monitoring requirements for new discharges (Part 4.3.2) or treatment system interruption or shutdown monitoring requirements for discharges that have been interrupted (Parts 4.3.3 and 4.3.4);
 - ii. Continuing a minimum of six (6) months and ten (10) samples, prior to submission of any request for modification of this monitoring frequency in accordance with Part 5.1 below; and
 - iii. Continuing thereafter for the term of this general permit, or until Notice of Termination, whichever occurs first, unless modified by EPA in writing.
- b. The monitoring frequency specified applies to all discharges covered under this general permit unless sampling would not otherwise be required (e.g., during a treatment system interruption as in 4.3.2, below), or unless otherwise specified (e.g., certain short-term discharges as in Part 4.4, below).
- c. Changes to the specified monitoring frequency must be approved by EPA in writing through a Notice of Change. See Appendix IV, Part 2.

3. Test Methods

- a. All samples shall be tested using the analytical methods found in 40 CFR §136, or alternative test methods approved by EPA, in accordance with the procedures in 40 CFR §136, unless specifically prohibited in this general permit. Test methods which can be used for analysis of the parameters included in this general permit are summarized in Appendix VII.
- b. All analyses must be conducted using a sufficiently sensitive test method in accordance with 40 CFR §122.44(i)(1)(iv) and as specified in Part 4.1.4, below.

4. Minimum Levels and Detection Limits

- a. For the purposes of this general permit, the minimum level (ML) for analysis is the lowest level at which the test equipment produces a recognizable signal and acceptable calibration point for a pollutant or pollutant parameter, representative of the lowest concentration at which a pollutant or pollutant parameter can be measured with a known level of confidence.
- b. For the purposes of this general permit, the detection limit (DL) is the lowest concentration that can be reliably measured within specified limits of precision and accuracy for a specific laboratory analytical method during routine laboratory operating conditions (i.e., the level above which an actual value is reported for an analyte, and the level below which an analyte is reported as non-detect).
- c. Operators must achieve the MLs for analysis specified in in Appendix VII of this general permit and the following requirements:

- i. Analysis of influent, effluent and/or receiving water samples shall use test methods with a ML at or below the level of the effluent limitation²⁰ for the given parameter, or the applicable water quality criterion for a parameter with a monitor-only requirement;
 - ii. The DL must be less than or equal to the ML for an analyte using a sufficiently sensitive test method. When an analyte is not detected, the operator must report results using the data qualifier signifying less than the DL reported for that analyte (i.e. <0.1 µg/L, if the DL reported for an analyte is 0.1 µg/L);
 - iii. Where the sample concentration of an analyte is above the ML, any of the test methods listed for that analyte in Appendix VII may be used, unless otherwise noted; and
 - iv. Where the ML for the approved test methods are above the permit effluent limitations, the test method that has the lowest ML of the analytical methods in 40 CFR §136 must be used.
- d. When a parameter is required to be reported as a total value, the total value must be calculated by adding the measured concentration of each individual compound noted for that parameter. If the measurement of an individual compound analyzed for a total value is less than the DL and the test method and minimum level meet the requirements in this Part and Appendix VII, the operator shall use a value of zero for that compound in the total value calculation.

5. Existing Data Substitution

Existing data substitution is allowed for the purposes of preparing a NOI and for the purposes of meeting the monitoring requirements included in this general permit if the following requirements are met:

- a. Sampling and analysis must have been conducted pursuant to: Massachusetts Regulations 310 CMR 40.0000, the Massachusetts Contingency Plan (Chapter 21E); New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act; the 2010 Remediation General Permit; or other existing data if allowed by EPA on a case-by-case basis;
- b. Sampling and analysis must meet the monitoring requirements specified in Part 2 and Parts 4.1.1 through 4.1.4, above, and, for data submitted with a NOI, Part 4.2, below;
- c. For data submitted with a NOI, the date of analysis for the existing data may not be greater than twelve (12) months for existing discharges or six (6) months for new discharges;
- d. For data submitted to meet reporting requirements, the date of analysis for the existing data must approximately coincide with other sampling and analysis conducted for the general permit; and
- e. Existing data must be submitted in accordance with Part 4.6.1, below, and meet the requirements specified in Part 2.5.2.f, above, and Part 4.6.2, below.

²⁰ When a compliance level is specified for an effluent limitation, the sufficiently sensitive test method ML shall be no greater than the compliance level.

6. Whole Effluent Toxicity (WET) Testing
 - a. Activity Categories I and II must conduct one (1) acute WET test:²¹
 - i. No later than thirty (30) days following authorization to discharge for existing discharges;
 - ii. No later than twelve (12) months following initiation of discharges for new discharges if discharges are expected to last twelve (12) months or more; and
 - iii. If requested by EPA and/or the appropriate State on a case-by-case basis for short-term discharges, including emergency discharges.
 - b. Activity Categories III, IV, V, VI, VII, and VIII must conduct WET testing if requested by EPA and/or the appropriate State on a case-by-case basis.
 - c. If the result of any WET test indicates toxicity (i.e., a $LC_{50} < 100\%$), notification must be provided within twenty-four (24) hours to EPA in accordance with Part 4.6.3.c and to the appropriate State via telephone, e-mail or other verbal or written means in accordance with Part 4.6.3.b or c.
 - d. If EPA and/or the appropriate State determine that a discharge may cause or contribute to an excursion above applicable water quality standards, EPA and/or the appropriate State may require additional WET testing, limitations and/or requirements as authorized at 40 CFR §122.44(d)(1)(v). If additional WET requirements apply, EPA will provide the reasons for the additional requirements to the operator in writing, and will specify the monitoring and reporting requirements and/or limitation.
 - e. Results of the WET requirements specified above must be submitted in accordance with Part 4.6.1, below, and must meet the QA/QC requirements specified in Part 2.5.2.f, above, and Part 4.6.2, below. The results of WET testing above its required frequency must also be submitted to EPA (see Appendix IX, Standard Conditions); and
 - f. If any parameter is analyzed in accordance with Attachment A for the requirement in this Part, the WET test result may be reported for any parameter for which monitoring is required in Part 4.1.2, above, or elsewhere in Part 4. A duplicate sample is not required.

4.2 NOI Monitoring Requirements

Samples collected and analyzed for the purposes of a NOI submitted for coverage under this general permit must be representative of the proposed discharge(s) and must meet the monitoring requirements specified in Part 2 and Part 4.1, above. Samples must be collected in accordance with the instructions included in Appendix IV, Part 1, and as required below.

1. Analysis for a minimum of one (1) **influent** sample is required for:
 - a. Activity Category I for:
 - i. all parameters in contamination type A. Inorganics;
 - ii. any present in contamination type B. non-halogenated VOCs;
 - iii. if present in contamination type C. halogenated VOCs;
 - iv. any present in contamination type D. non-halogenated SVOCs;

²¹ Acute Whole Effluent Toxicity Testing must be completed in accordance with USEPA Region 1 Freshwater Acute Toxicity Test Procedure and Protocol (February, 2011) for discharges to freshwater and Marine Acute Toxicity Test Procedure and Protocol (July 2012) for discharges to saltwater, including estuaries. See Attachment A.

- v. if present in contamination type E. halogenated SVOCs; and
 - vi. any present in contamination type F. fuels parameters.
 - b. Activity Category II for:
 - i. all parameters in contamination type A. Inorganics;
 - ii. any present in contamination type B. non-halogenated VOCs;
 - iii. any present in contamination type C. halogenated VOCs;
 - iv. any present in contamination type D. non-halogenated SVOCs;
 - v. if present in contamination type E. halogenated SVOCs; and
 - vi. if present in contamination type F. fuels parameters.
 - c. Activity Category III-G for:
 - i. all parameters in contamination type A. Inorganics; and
 - ii. if present in contamination type B through F
 - d. Activity Category IV-G, V-G, VI-G, VII-G, VIII-G for:
 - i. if present in contamination type A through F.
 - e. Activity Category III-H, IV-H, V-H, VI-H, VII-H, VIII-H for:
 - i. all parameters in contamination type A through F.
 - f. All Activity Categories:
 - i. pH, temperature, and hardness (freshwater receiving waters only);
 - ii. Any parameter listed in Part 2.1.1, if present, but not otherwise specified in this Part for the Activity Category that applies to a site;
 - iii. Any parameter listed in Part 2.1.1 if it is unknown whether the given parameter is present or absent; and
 - iv. Any parameter present that is not included in this general permit.
 - g. When “if present” is noted in Part 4.2.1, above, the monitoring requirement for a parameter in the Contamination Type applies to a site only if the given parameter is known or believed present at that site. When “any present” is noted in Part 4.2.1, above, the monitoring requirement for all parameters listed in the Contamination Type apply to a site when at least one parameter listed for that Contamination Type is known or believed present at that site.
- 2. Analysis is required for a minimum of one (1) **receiving water** sample for:
 - a. All activity categories: pH, temperature, hardness (freshwater receiving waters), salinity (saltwater receiving waters), and ammonia; and
 - b. All activity categories for total recoverable antimony, total recoverable arsenic, total recoverable cadmium, total recoverable chromium III and VI, total recoverable copper, total recoverable iron, total recoverable lead, total recoverable mercury, total recoverable nickel, total recoverable selenium, total recoverable silver, total recoverable zinc, if present and if a dilution factor applies.
- 3. Results of the NOI monitoring requirements specified above must be submitted to EPA as an attachment to the NOI in accordance with Appendix VIII, and must meet the QA/QC requirements specified in Part 2.5.2.f, above, and the reporting requirements specified in Part 4.6.2, below.
- 4. The results of sampling for any parameter above its required minimum must be submitted to EPA as an attachment to the NOI.

5. EPA and/or the appropriate State may require additional NOI monitoring on a case-by-case basis. If additional monitoring is required, EPA and/or the appropriate State will briefly state the reasons for the monitoring, and will specify the monitoring and reporting requirements.
6. Where an operator conducts any of the monitoring specified above prior to the submission of a NOI, additional samples are not required, so long as the monitoring requirements specified in Part 2.1 and elsewhere in Part 4, are met, including Part 4.1.5 for existing data substitution.

4.3 Treatment System Monitoring Requirements

All operators must perform treatment system monitoring when a treatment system is in use at a site. Treatment system monitoring requirements for startup, interruption and shutdown are specified below.

1. Treatment System Startup
 - a. The operator must perform the following sampling and analysis for all parameters required for the applicable activity category or categories as specified in Part 2.1, above, when a discharge is either initiated for the first time, or upon the re-initiation of discharge following a treatment system interruption lasting ninety (90) or more consecutive days, unless otherwise specified:
 - i. During the first week of discharge, operators must sample the **influent and effluent** two (2) times: one (1) sample of the influent and one (1) sample of the effluent must be collected on the first day of the discharge; and one (1) sample of the influent and one (1) sample of the effluent must be collected on one additional non-consecutive day within the first week of discharge;
 - ii. During the first week of discharge, samples must be analyzed in accordance with 40 CFR §136 unless otherwise specified in this general permit with a maximum five (5)-day turnaround time and results must be reviewed no more than forty-eight (48) hours from receipt of the results of each sampling event. After the first week, samples may be analyzed with up to a ten (10)-day turnaround time and results must be reviewed no more than seventy-two (72) hours from receipt of the results;
 - iii. If the treatment system is operating as designed and achieving the effluent limitations in this general permit, sampling of the **influent and effluent** shall be as follows, thereafter:
 - 1) 1/Week for three (3) additional weeks beginning no earlier than twenty-four hours following the sampling required in Part 4.3.2.a.ii, above;
 - 2) 1/Month in accordance with Part 4.1.2, above for the remaining term of the permit; and
 - 3) Adjusted for any monitoring frequency reduction approved by EPA in writing.
 - b. If the treatment system is shut down during startup or interrupted as a result of a problem, including when discharge concentrations for any parameter exceeds effluent

limitations, corrective actions must be taken in accordance with Part 2.5.2.e, above and as follows:

- i. Upon system restart and/or re-initiation of discharge, the operator shall collect one (1) sample with a maximum five (5)-day turnaround time and results must be reviewed no more than forty-eight (48) hours from receipt of the results of the sampling event;
 - ii. If the problem has been corrected, the operator may resume with treatment system startup as specified in Part 4.3.1.a.iii, above, or routine monitoring specified in Part 4.1.2 following a treatment system interruption; and
 - iii. If the problem persists, the operator must immediately halt discharge again and notify EPA and the appropriate State via telephone, e-mail or other verbal or written means in accordance with Part 4.6.3.b or c within twenty-four (24) hours of the need to cease discharge a second time; discharge may resume upon completion of corrective actions unless otherwise directed by EPA and/or the State contact.
2. Treatment System Interruption
 - a. In addition to the requirements for certain upset and/or bypass conditions specified in Appendix IX, Standard Conditions, if the operator has any indication of treatment system upset or violation of effluent limitations, corrective actions must be taken in accordance with Part 2.5.2.e, above.
 - b. If the discharge has been interrupted for ninety (90) or more consecutive days, the same monitoring requirements apply as specified in Part 4.3.1.a.i and Part 4.3.1.b, above, upon treatment system re-start.
 - c. If the discharge has been interrupted less than ninety (90) consecutive days, the same monitoring requirements apply as specified in Part 4.3.1.b, above, upon treatment system re-start.
3. Treatment System Shutdown
 - a. The operator must perform the following monitoring for all parameters required for the applicable activity category or categories as specified in Part 2.1.1, above, prior to permanent treatment system shutdown (i.e., termination), and must submit the results with the NOT, in accordance with Part 5.2, below, and Appendix IV, Part 3.:
 - i. During the final week of discharge, operators must sample the **influent and effluent** two (2) times: one (1) sample of the influent and one (1) sample of the effluent must be collected on the last day of the discharge; and one (1) sample of the influent and one (1) sample of the effluent must be collected on one additional non-consecutive day within the last week of discharge; and
 - ii. Samples must be analyzed in accordance with 40 CFR §136 unless otherwise specified in this general permit with up to a ten (10)-day turnaround time and results must be reviewed no more than seventy-two (72) hours from receipt of the results, or upon confirmation that additional sampling prior to treatment system shutdown is not necessary.
 - b. Where an operator collects any portion of the information specified above no more than three (3) months prior to treatment system shutdown, an additional sample is not required, so long as the information was collected in accordance with the monitoring

- requirements of this general permit or otherwise meets the requirements for existing data substitution in Part 4.1.5, above; and
- c. In the event the treatment system has been interrupted for more than ninety (90) consecutive days prior to treatment system shutdown, existing data may be substituted for the data required for the submission of a NOT from equivalent monitoring conducted nearest in time to NOT submission, so long as the requirements in Part 4.1.5, above, are otherwise met.

4.4 Short-Term Discharge Monitoring Requirements

For the purposes of this general permit, discharges lasting twelve (12) months or less (e.g., emergency discharges, immediate response actions, pump tests, temporarily containerized waters and dewatering of pipelines and tanks), which are then terminated and will not be re-started are considered “short-term discharges”. The monitoring requirements for short-term discharges are as follows:

1. Discharges from Dewatering of Pipelines and Tanks
 - a. The operator must take a minimum of five (5) grab samples, including:
 - i. For **influent**, the operator must take one (1) sample of the source water during the fill process, except when infeasible. A representative sample the source water may be used for influent if sampling during the fill process is infeasible;
 - ii. For tanks, the operator shall take a minimum of one (1) **in-process** sample representative of the tank water following maintenance or testing, but before draining. If the tank contents are likely to undergo phase separation or stratification, multiple samples from multiple depths within the water column must be collected and composited. The operator shall analyze and review the in-process sample prior to discharge. If the analysis demonstrates that the tank water does not meet the effluent limitations in this general permit, the operator shall not discharge the tank water unless treatment reduces the pollutant levels below the effluent limitations established in this general permit;
 - iii. For pipelines, the operator shall take one (1) **in-process** sample of the pipeline water following depressurization. The operator shall analyze and review the in-process sample prior to discharge. If the analysis demonstrates that the pipeline water does not meet the effluent limitations in this general permit, the operator shall not discharge the pipeline water unless treatment reduces the pollutant levels below the effluent limitations established in this general permit; and
 - iv. For **effluent**, the operator must take one (1) sample of the discharge during the first 10% of discharge, one (1) sample of the discharge at the approximate midpoint of discharge, and one (1) sample of the discharge during the last 10% of discharge. If at any time the analysis demonstrates that the discharge does not meet the effluent limitations and requirements in this general permit, corrective action must be taken in accordance with Part 2.5.2.e, above prior to resuming discharge, unless instructed otherwise by EPA and/or the appropriate State.

2. Short-Term Discharges Other than Those from Dewatering of Pipelines and Tanks
 - a. For any short-term discharge lasting twenty-four (24) hours or less:
 - i. The operator must take a minimum of one (1) representative sample of the **influent and effluent**;
 - ii. Samples must be analyzed in accordance with 40 CFR §136 or by other methods authorized by this general permit with no more than a ten (10) day turnaround time and results must be reviewed within seventy-two (72) hours of the date of receipt of the sample results; and
 - iii. The monitoring frequencies specified in Part 4.1.2 and Part 4.3 do not apply.
 - b. For any short-term discharge lasting seven (7) days or less:
 - i. The operator must take a minimum of two (2) samples of the **influent and effluent**: one (1) sample of the influent and one (1) sample of the effluent must be collected on the first day of discharge; and one (1) sample of the influent and one (1) sample of the effluent must be collected on one additional non-consecutive day within the first week of discharge;
 - ii. Samples must be analyzed in accordance with 40 CFR §136 or by other methods authorized by this general permit with no more than a ten (10) day turnaround time and results must be reviewed within seventy-two (72) hours of the date of receipt of the sample results; and
 - iii. The monitoring frequencies specified in Part 4.1.2 and Part 4.3 do not apply.
 - c. For any short-term discharge lasting more than seven (7) calendar days but not more than twelve (12) months, sampling must proceed as follows:
 - i. Operators must perform treatment system monitoring in accordance with Part 4.3.1.a.i, above, when a treatment system is in use at a site;
 - ii. If a treatment system is not in use at a site, operators must perform monitoring as follows:
 - 1) The operator must take a minimum of two (2) representative samples of the **influent and effluent**: one (1) sample of the influent and one (1) sample of the effluent must be collected on the first day of discharge; and one (1) sample of the influent and one (1) sample of the effluent must be collected on one additional non-consecutive day within the first week of discharge;
 - 2) The operator must take a minimum of one (1) sample of the **influent and effluent** weekly for three (3) additional weeks beginning no earlier than twenty-four hours following the sampling required in Part 4.4.2.c.ii.1, above; and
 - 3) The operator must take a minimum of one (1) sample of the **influent and effluent** monthly in accordance with Part 4.1.2, above, until Notice of Termination, beginning no earlier than twenty-four hours following the sampling required in Part 4.4.2.c.ii.2, above.
 - iii. During the first week of discharge, samples must be analyzed in accordance with 40 CFR §136 unless otherwise specified in this general permit with a maximum five (5) day turnaround time and results must be reviewed no more than forty-eight (48) hours from receipt of the results of each sampling event. After the first week, samples may be analyzed with up to a ten (10) day turnaround time and results must be reviewed no more than seventy-two (72) hours from receipt of the results.

- d. Where the monitoring frequencies specified in Part 4.4, above, are duplicative of the monitoring required elsewhere in this general permit, duplicate sampling is not required; and
- e. The reporting requirements specified in Part 4.6.1.a do not apply.

4.5 Record-Keeping Requirements

1. Records Content: Operators must include the following records (hardcopy or electronic) pertaining to coverage under this general permit:
 - a. Data used to complete the NOI for this general permit;
 - b. Sample collection information, including: the date, exact location, and time of sampling or measurement; the name of the individual(s) who performed the sampling or measurement; and the sample chain of custody for each sample;
 - c. Analytical laboratory reports for each sample analysis, which: identifies the sample(s), the target analyte(s), the test method(s), the dates collected and analyzed, the analytical result(s), the detection limit for each analyte, and the names of the laboratory and individual that conducted the analysis; includes a legible copy of the signed sample chain of custody; and indicates if all appropriate QA/QC procedures were met and were within acceptable limits;
 - d. Documentation for the development, implementation and maintenance of the BMPP, including certifications;
 - e. Discharge monitoring data in the suggested format included in Appendix VIII, or other format containing all of the information included in Appendix VIII;
 - f. Any records of monitoring instrumentation, field monitoring, and visual observations (e.g. portable organic vapor monitoring, turbidity meter, visible sheen observations);
 - g. Any records of system operation and maintenance; and
 - h. Any records of site inspections and employee training.
2. On-Site Records: The following records (hardcopy or electronic) must be maintained on-site and/or with the operator to be made available upon inspection and/or request by EPA or the appropriate State:
 - a. A complete copy of this general permit;
 - b. A copy of EPA's authorization to discharge and any subsequent modifications, if applicable;
 - c. Copies of any information submitted to EPA, the appropriate State, and the municipality in which the site is located;
 - d. Copies of any correspondence received from EPA, the appropriate State, and the municipality in which the site is located regarding permit coverage; and
 - e. A copy of the BMPP.
3. Retention of Records: Operators must retain the records specified above for a minimum of three (3) years from the date of the sample, measurement, report or notice, whichever applies. This period may be extended at the request of EPA or the appropriate State.

4.6 Reporting Requirements

1. Discharge Monitoring Reports

- a. **For discharges lasting twelve (12) months or more**, in addition to the reporting requirements found in Appendix IX, Standard Conditions, of this general permit, the operator shall submit the following information to EPA and the appropriate State:

i. Submittal of DMRs and the Use of NetDMR

- 1) **Beginning the effective date of the authorization to discharge** the operator must record all monitoring data collected to comply with this general permit;
- 2) **Beginning the first full calendar month following twelve (12) months after the effective date of the authorization to discharge**, the operator shall begin reporting monitoring data in DMRs to EPA and the State, due no later than the 15th day of the month following the completed reporting period; the reporting periods for this general permit consist of each calendar month, inclusive;
- 3) All DMRs must be submitted electronically using NetDMR, unless, in accordance with Part 4.6.1.a.iii, below, the operator is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for submitting DMRs. NetDMR is a web-based tool that allows operators to electronically submit DMRs and other required reports via a secure internet connection;²² the operator must continue to use NetDMR after beginning to do so.
- 4) The operator must utilize an appropriate No Data Indicator (NODI) Code(s)²³ in instances where monitoring data have not been obtained or are otherwise not required. Commonly applicable NODI Codes for this general permit include, but are not limited to:
 - (A) "C" if no discharge occurs during a required sample frequency;
 - (B) "A" if an operator is exempted from the requirement to sample for a parameter, such as when EPA approves, in writing, sample frequency reduction and/or elimination;
 - (C) "2" if operation is shut down, such as during a treatment system interruption; and/or
 - (D) "9" if an effluent limitation is conditional and does not apply during a required sample frequency (e.g., TRC effluent limitation applies only if a discharge is likely to contain residual chlorine such as when a chemical additive containing chlorine is being used).

ii. Submittal of Reports as NetDMR Attachments

- 1) When the operator begins submitting DMR reports to EPA electronically using NetDMR, the operator shall electronically submit other reports to EPA as NetDMR attachments rather than as hard copies, unless otherwise specified in this general permit. Because the due dates for reports described in this general permit may not coincide with the due date for submitting DMRs (which is no later than the 15th day of the month), a report submitted electronically as a NetDMR attachment shall be considered timely if it is electronically submitted

²² NetDMR is currently accessed from: <http://www.epa.gov/netdmr>.

²³ DMR instructions are currently accessed from: <http://www3.epa.gov/region1/npdes/dmr.html>.

to EPA using NetDMR with the next DMR due following the particular report due date specified in this general permit.

iii. Submittal of NetDMR Opt-Out Requests

- 1) NetDMR opt-out requests must be submitted in writing to EPA for written approval at least 60 days prior to the date a site would be required under this general permit to begin using NetDMR. This demonstration shall be valid for 12 months from the date of EPA approval and shall thereupon expire. At such time, DMRs and reports shall be submitted electronically to EPA unless the operator submits a renewed opt-out request and such request is approved by EPA. All opt-out requests should be sent to EPA at the following address:

Attn: NetDMR Coordinator
U.S. Environmental Protection Agency, Water Technical Unit
5 Post Office Square, Suite 100 (OES04-4)
Boston, MA 02109-3912

- b. **For discharges lasting less than twelve (12) months**, the operator is not subject to the DMR reporting requirements defined in Part 4.6.1.a, above, but remains subject to the monitoring requirements of this general permit, the reporting requirements in 4.6.2 through 4.6.6, below, the requirements found in Appendix IX, Standard Conditions, and the requirements of a NOI, NOC and NOT. Information that must be submitted with an operator's NOI, NOC and NOT is defined in Appendix IV, Part 1, Part 2 and Part 3 of this general permit, respectively. Also see and Part 3, above, and Part 5, below.

2. Analytical Reports

- a. Operators shall submit a copy of the laboratory analytical report(s) for each sampling event, concurrent with the submittal of discharge monitoring data in accordance with Part 4.6.1, as applicable. The laboratory case narrative shall include a copy of the laboratory analytical reports for each sample analysis, which: identifies the sample(s), the target analyte(s), the test method(s), the dates collected and analyzed, the analytical result(s), the detection limit for each analyte, and the names of the laboratory and individual(s) that conducted the analysis; includes a legible copy of the signed sample chain of custody; and indicates if all appropriate QA/QC procedures were met and were within acceptable limits.

3. Notification Requirements

- a. As required in 40 CFR §122.44(f), all operators must notify EPA as soon as they have reason to believe that any activity has occurred or will occur which would result in the discharge of any toxic pollutant (see 40 CFR §401.15) which is not limited in this general permit which exceeds:
 - i. The notification level of in 40 CFR §122.42; or
 - ii. Any other notification level established in accordance with 40 CFR §122.44(f) and State regulations.
- b. Written notifications required in this general permit, unless otherwise specified, shall be made to both EPA and to the appropriate State. Written notifications shall be made

- in accordance with Part 4.6.4 and Part 4.6.5 or 4.6.6, as applicable, below, unless otherwise specified.
- c. Verbal notifications required in this general permit, unless otherwise specified, shall be made to both EPA and to the appropriate State. This includes verbal notifications which require reporting within 24 hours (e.g., see Appendix IX Parts B.4.c.(2), B.5.c.(3), and D.1.e). Verbal notifications shall be made to:
- i. The EPA and appropriate State contacts listed on EPA's website for this general permit²⁴; and
 - ii. EPA's Office of Environmental Stewardship at: 617-918-1510 for Verbal Notifications required under Appendix IX, if Part 4.6.1.a applies.
4. EPA Region 1 Addresses
- a. Submittal of Notifications and Reports to EPA/OEP
- i. The following notifications and reports described in this general permit shall be submitted to the EPA/OEP RGP Coordinator in the EPA Office Ecosystem Protection (OEP):²⁵
 - 1) Notice of Intent (NOI);
 - 2) Notice of Change (NOC);
 - 3) Notice of Termination (NOT);
 - 4) Written notifications required in this general permit; and
 - 5) Reports and DMRs in electronic format, if NetDMR is not required (i.e., if Part 4.6.1.a does not apply).
 - ii. These notifications and reports shall be submitted to EPA/OEP electronically at NPDES.Generalpermits@epa.gov, or, where an operator is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes submittal in electronic format, in hard copy form:

U.S. Environmental Protection Agency
Office of Ecosystem Protection
EPA/OEP RGP Coordinator
5 Post Office Square - Suite 100 (OEP06-01)
Boston, MA 02109-3912

- b. Submittal of Notifications and Reports to EPA/OES
- i. The following notifications and reports shall be signed and dated originals, submitted in hard copy, with a cover letter describing the submission, if Net DMR is required (i.e., if Part 4.6.1.a applies):
 - 1) NetDMR Opt-Out Requests;
 - 2) DMRs and transmittal record of DMRs submitted, when a NetDMR Opt-Out Request has been approved; and
 - 3) Written notifications required under Appendix IX.
 - ii. This information shall be submitted to EPA/OES at the following address:

U.S. Environmental Protection Agency

²⁴ See footnote 17.

²⁵ See footnote 17.

Office of Environmental Stewardship (OES)
Water Technical Unit
5 Post Office Square, Suite 100 (OES4-SMR)
Boston, MA 02109-3912

5. MassDEP Address

- a. Massachusetts sites must submit copies of all notifications and reports required in Part 4.6.4.a, above, to the MassDEP RGP Coordinator,²⁶ or, where an operator is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes submittal in electronic format, in hard copy form:

Massachusetts Department of Environmental Protection
Bureau of Water Resources
1 Winter St. 5th Floor
Boston, MA 02108

- b. Massachusetts sites must submit copies of all notifications and reports required in Part 4.6.4.b, above, to the appropriate regional office as follows:
- i. Massachusetts Department of Environmental Protection - Central Region
8 New Bond Street
Worcester, Massachusetts 01606
 - ii. Massachusetts Department of Environmental Protection - Northeast Region
205B Lowell Street
Wilmington, Massachusetts 01887
 - iii. Massachusetts Department of Environmental Protection - Southeast Region
20 Riverside Drive
Lakeville, MA 02347
 - iv. Massachusetts Department of Environmental Protection – Western Region
436 Dwight Street
Springfield, MA 01103

6. NHDES Address

- a. New Hampshire sites must submit copies of all notifications and reports to the NHDES RGP Coordinator,²⁷ or, where an operator is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes submittal in electronic format, in hard copy form:

New Hampshire Department of Environmental Services
Water Division, Wastewater Engineering Bureau
29 Hazen Drive, P.O. Box 95
Concord, NH 03302-0095

²⁶ See footnote 17.

²⁷ See footnote 17.

PART 5 ADMINISTRATIVE REQUIREMENTS**5.1 Notice of Change (NOC)**

Operators covered under this general permit may request a change to certain conditions through submission of a NOC to EPA and the appropriate State, when required, prepared in accordance with the instructions provided in Appendix IV, Part 2, and signed in accordance with 40 CFR §122.22.

1. For the purposes of this general permit, a NOC may consist of either:
 - a. The suggested NOC format in Appendix IV, Part 2 of this general permit; or
 - b. Other form of official correspondence containing all of the information included in the NOC suggested format in Appendix IV, Part 2 of this general permit.

2. Eligible changes, which are not otherwise major permit modifications as provided for under 40 CFR §122.62, may consist of:
 - a. Request for reduction in monitoring requirements: Certain monitoring requirements may be reduced upon demonstration of compliance if the eligibility requirements for reduction are met. Written approval by EPA is required for this change to be effective. Prior to receiving written approval, the operator must continue to monitor the parameters required in this general permit at the frequency specified in this general permit. This request requires supporting rationale and monitoring data as follows:
 - i. To be eligible for a reduction in treatment system monitoring (Part 4.3) or short-term monitoring (Part 4.4) due to technical infeasibility, the operator must provide justification for each parameter for which reduction is being requested that must include a proposed monitoring frequency;
 - ii. To be eligible for a reduction in **influent** monitoring (Part 4.1.2), the operator must provide monitoring data for a minimum of six (6) consecutive months and ten (10) samples for each parameter for which reduction is being requested;
 - iii. To be eligible for a reduction in **effluent** monitoring (Part 4.1.2), the operator must provide monitoring data for a minimum of six (6) consecutive months and ten (10) samples for each parameter for which reduction is being requested;
 - iv. Monitoring data must be submitted in support of requests for reduction of monitoring frequency in Part 5.1.2.a.ii and iii, above. Monitoring data submitted in support of this request must be in compliance with the monitoring and reporting requirements of this general permit, including the QA/QC requirements specified in Part 2.5.2.f, above, and must be attached in accordance with the instructions in Appendix VIII;
 - v. The discharge must be in compliance with the effluent limitation for any parameter for which a reduction is requested in Part 5.1.2.a.ii and iii, above; and

- vi. A proposed monitoring frequency must be included for each parameter for which a reduction is requested in Part 5.1.2.a.ii and iii, which shall be no less than once per year for any parameter.
- b. Request for a change in the site-specific effluent flow limitation: A NOC must be submitted if effluent flow increases, a change in flow conditions will decrease the daily maximum effluent flow by more than 25 percent, or an operator believes use of a flow meter is infeasible. Written approval by EPA is required for this change to be effective. Prior to receiving written approval, the operator must continue to limit effluent flow as required in this general permit at the frequency specified in this general permit. Written rationale provided in the NOC for this request must indicate:
 - i. The effluent flow will not exceed 1.0 MGD;
 - ii. The design flow of the treatment system will not be exceeded;
 - iii. WQBEL calculations for any limited parameter that applies to the discharge that is based on effluent flow; and
 - iv. Certification that any revised effluent limitation or monitoring requirement will be complied with.
- c. Request for a change in pH range for sites in New Hampshire: A NOC must be submitted to request a change in pH range due to naturally occurring conditions in the receiving water or where the naturally occurring source water is unaltered by the remediation activities. An operator must request and receive approval from NHDES for a change in pH range prior to submitting a NOC to EPA. See Part 2.4.3.b, above. Supporting documentation from the State must be provided with the NOC. Written approval by EPA is required for this change to be effective.
- d. Request for a change in authorized pollutants or pollutant parameters: A NOC must be submitted if: 1) A parameter limited in this general permit that is not included in an operator's authorization to discharge is identified; 2) The concentration of any parameter present in the effluent differs significantly from the influent, once effluent sampling begins; and/or 3) a WQBEL change is required or is otherwise requested. Written approval by EPA is required for this change to be effective. Additional effluent limitations and/or monitoring requirements may apply. **Changes in a pollutant or pollutant parameter not limited in this general permit require a new NOI or an individual NPDES permit.**
- e. Request to discharge chemical(s) and/or additive(s): A NOC must be submitted when an operator intends to discharge a chemical or additive that was not disclosed in the NOI submitted for a site. Written approval by EPA is required for this change to be effective. Monitoring data submitted in support of this request must be in compliance with the monitoring and reporting requirements specified in this general permit, including the QA/QC requirements specified in Part 2.5.2.f, and must be attached in accordance with the instructions in Appendix VIII. Written rationale provided in the NOC for this request must include:
 - i. All information required in Part 2.5.2.g.iii, above; and
 - ii. An explanation as required in Part 2.5.3.b.i through iii, above; or
 - iii. Monitoring data that demonstrates that each of the 126 priority pollutants are non-detect in discharges with the addition of the requested chemicals and/or additives. All data submitted in support of this request must be in compliance with the monitoring and reporting requirements of this general permit,

- including the QA/QC requirements specified in Part 2.5.2.f, above, and must be attached in accordance with the instructions in Appendix VIII.
- f. Notification of change to administrative information: This includes, but is not limited to: expected date of initiation of discharge; a change in the address for an owner or operator; a change in contact information for an owner or operator; and a change in ownership, so long as the operator authorized to discharge under this general permit remains unchanged. A requested change to administrative information is automatic unless EPA notifies the operator otherwise. Examples of when EPA is likely to provide such notification is when EPA intends to revoke and reissue coverage under this general permit or intends to issue an individual permit. **For a change in operator, a new NOI is required.** For a change in ownership, the new owner must submit:
 - i. Written notification to EPA no more than thirty (30) days following the date of ownership change; and
 - ii. Written notification containing the new ownership information, the specific date for ownership change, and an acknowledgement of permit responsibility, coverage, and liability.
 - g. Notification of a change in discharge location: Notification may be provided in a NOC for a change in discharge location so long as the receiving water identified in the NOI remains unchanged. Supporting documentation for this notification must indicate the new discharge location. A change in discharge location is automatic unless EPA notifies the operator otherwise. **For a change in receiving water, a new NOI is required.**
 - h. Notification of a change in activity area: Notification may be provided in a NOC for a change in activity area so long as the receiving water identified in the NOI and the operator authorized to discharge under this general permit remain unchanged, and any change in treatment or discharge location are either included in the NOC, or are unchanged. Supporting documentation for this notification must indicate the new activity area. A change in activity area is automatic unless EPA notifies the operator otherwise. **For a change in receiving water and/or operator, a new NOI is required.**
 - i. Notification of a change to a treatment system or process: Notification may be provided in a NOC for a change to a treatment system or process that adds or removes any major component. Written rationale for this notification must indicate:
 - i. Why the addition or removal is necessary, including when necessary to meet an effluent limitation in this general permit, or to meet a State permit condition; and
 - ii. The discharge will meet the effluent limitations in this general permit with the addition or removal.
 - j. Notification of a discharge interruption planned or encountered which will extend greater than ninety (90) days. Written rationale for this notification must indicate:
 - i. The reason(s) for the interruption of discharge;
 - ii. When the discharge ceased or will cease;
 - iii. When the discharge will be re-initiated; and

- iv. An acknowledgment that the additional monitoring required for system re-start will be conducted and routine sampling will be resumed as specified in the RGP.
3. Attach a brief narrative statement that describes the change. Include any written rationale or supporting documentation for the change, if required, or if otherwise being provided.
4. Attach monitoring data, if required, or if otherwise being provided, in accordance with the instructions in Appendix VIII.

5.2 Notice of Termination (NOT)

All operators covered under this general permit must submit a written NOT to EPA, and the appropriate State, when required, in accordance with Part 4.6, above, signed in accordance with 40 CFR §122.22 and in accordance with the instructions provided in Appendix IV, Part 3.

1. A NOT is required when one or more of the following conditions have been met:
 - a. All discharges covered under the RGP have been terminated;
 - b. Coverage under an individual or other general NPDES permit has been obtained;
 - c. There is a change in operator; or
 - d. Authorization to discharge has expired and coverage under a new general permit will not be requested.
2. For purposes of this general permit, the NOT may consist of either:
 - a. The suggested NOT format in Appendix IV, Part 3 of this general permit, or
 - b. Another form of correspondence containing all of the information included in the NOT suggested format in Appendix IV, Part 3 of this general permit.
3. A NOT must be submitted no later than thirty (30) days following the identification of the condition(s) requiring a NOT.
4. A NOT must include the following general site information:
 - a. The NPDES permit number assigned by EPA;
 - b. The name of the site and the street address (or a description of location using approximate geographic coordinates if no street address is available) for which the notification is submitted;
 - c. The name, address and telephone number of the owner of the site;
 - d. The name, address and telephone number of the operator of the site, if different from the owner;
 - e. Discharge identification (i.e., the outfall number), the discharge location (i.e., longitude and latitude), and the receiving water(s).
5. A NOT must include the following discharge information:
 - a. Indicate that all discharges have been permanently terminated.
 - b. Indicate the reason for the termination (e.g., completion of construction project, remediation completion, termination of temporary discharge).

- c. Indicate the date of the initiation of discharge, the date of the termination of discharge, the daily maximum effluent flow, and frequency of discharge.
 - d. Attach a summary of all monitoring results from the initiation of discharge through termination, including the results of monitoring requirements included in Part 4.3 of the RGP, when required for treatment system start-up(s), interruption(s), and shutdown, in accordance with the instructions in Appendix VIII.
6. Failure to submit a NOT shall result in continuation of general permit coverage until expiration, including continuation of all monitoring, record-keeping and reporting requirements.

5.3 Continuation of this General Permit after Expiration

If this general permit is not reissued prior to the expiration date, it will be administratively continued in accordance with the Administrative Procedures Act and remain in force and in effect as to any individual operator. However, EPA cannot provide written notification of coverage under this general permit to any operator who submits a NOI to EPA after the permit's expiration date. Any operator who was granted general permit coverage prior to the expiration date will automatically remain covered by the continued general permit until the earlier of:

1. Reissuance of this general permit, at which time the operator must comply with the NOI requirements of the new general permit to maintain authorization to discharge;
2. The operator's submittal of a NOT;
3. Issuance of an individual permit for the operator's discharges; or
4. A formal decision by EPA not to reissue the general permit, at which time the operator must seek coverage under an individual permit or other general NPDES permit.

PART 6 STANDARD CONDITIONS

The Standard Conditions are included in Appendix IX.

PART 7 ADDITIONAL PERMIT CONDITIONS APPLICABLE TO SPECIFIC STATES

If required, this section is reserved and will be completed following the State certification process and the public notice period.



Appendix B

Non-stormwater Discharge Testing and/or Evaluation Form

William Stanley Business Park of the Berkshires, Pittsfield, MA

NON-STORMWATER DISCHARGE EVALUATION

Facility Name:

Date of Evaluation:

Performed By:

Overview:

The General Permit requires that the Site Stormwater Pollution Prevention Plan (SWPPP) include a description of any test or evaluation for the presence of non-stormwater discharges. The permitted wastewater discharges for the Site are described in Section 3.6 of the SWPPP. The non-stormwater discharge evaluation conducted at the Site consisted of the following checks.

- 1.
- 2.
- 3.
- 4.

Description: The following is a description of the methods used to conduct the non-stormwater evaluation and the detailed results and findings:

- 1.

Findings:

a.

i.

ii.

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Appendix C

List of William Stanley Business Park of the Berkshires Permits

William Stanley Business Park of the Berkshires, Pittsfield, MA

Permit ID	Permit Type	Effective Date
MA0040231	National Pollutant Discharge Elimination System (NPDES) Permit	November 1, 2021
Not applicable	Ninth Modification of Consent Decree	July 22, 2009

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Appendix D

Inventory of Exposed Materials

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Appendix E

Summary of Spills

Appendix F

Procedures for Unloading Fuel Oil and Hazardous Materials

Appendix G

SWPPP Training Records

Appendix H

Routine Inspection Forms and Completed Reports



Appendix I

Stormwater Discharge Monitoring Form and Visual Assessment Form

Appendix M - Discharge Monitoring Report (DMR) Form

Part 7.2 requires you to use the electronic DMR system to prepare and submit your Discharge Monitoring Report (DMR) form. However, if you are given approval by the EPA Regional Office to use a paper DMR form, and you elect to use it, you must complete and submit the following form.

NPDES FORM 6100-29		UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	OMB No. 2040-0300 Exp. Date: 3/31/2024
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A. Approval to Use Paper NOI Form

1. Have you been granted a waiver from electronic reporting from the EPA Regional Office*? YES NO

If yes, check which waiver you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date of approval:

Waiver granted: The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.

The owner/operator has issues regarding available computer access or computer capability

Name of EPA staff person that granted the waiver:

Date approval obtained: / /

*** Note: Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper DMR form. If you have not obtained a waiver, you must file this form electronically using the NetDMR at <http://www.epa.gov/netdmr/>**

1. NPDES ID:

2. Reason(s) for Submission (Check all that apply):

Submitting monitoring data (Fill in all Sections).

Reporting no discharge for all discharge points for this monitoring period (Fill in Sections A, B, C, D, E.1, and G).

Reporting that your site status has changed to inactive and unstaffed and there are no industrial materials or activities exposed to stormwater (Fill in Sections A, B, C, D, and F.4 (include date of status change in comment field).

Reporting that your site status has changed to active and/or there are industrial materials or activities exposed to stormwater (Fill in all Sections and include date of status change in comment field in Section F.4).

1. Operator Information:

Operator Name:

Mailing Address:

Street:

City: State: ZIP Code: -

Phone: - - Ext.

E-mail:

2. DMR Preparer (Complete if DMR was prepared by someone other than the certifier):

First Name, Middle Initial, Last Name

Organization:

Phone: - - Ext.

E-mail:

D. Facility Information

1. Facility Name:

2. Facility Address:
 Street/Location:

City: State: ZIP Code:

County or Similar Government Subdivision:

E. Discharge Information

1. Identify monitoring period: Check here if proposing alternative monitoring periods due to irregular stormwater runoff. Identify alternative monitoring schedule and indicate for which alternative monitoring period you are reporting monitoring data:

Quarter 1 (January 1 – March 31) Quarter 1: From / To /

Quarter 2 (April 1 – June 30) Quarter 2: From / To /

Quarter 3 (July 1 – September 30) Quarter 3: From / To /

Quarter 4 (October 1 – December 31) Quarter 4: From / To /

2. Are you required to monitor for cadmium, chromium, lead, nickel, silver, or zinc in freshwater? YES (Skip to 3) NO (Skip to 4)

3. What is the hardness level of the receiving water? (mg/L)

4. Does your facility discharge into any saltwater receiving waters? YES NO

	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 MSGP INDUSTRIAL DISCHARGE MONITORING REPORT (DMR) FORM	OMB No. 2040-0300
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F. Monitoring Information Note: Make additional copies of this form as necessary.

1. Nature of Discharge: Rainfall (Complete line items 2.a., 2.b., & 2.c.) Snowmelt

2.a. Duration of the rainfall event (hours): 2.b. Rainfall amount (inches): . 2.c. Time since previous measurable storm event (days):

3.a. Discharge Point ID (list the same 3-digit discharge points identified on the NOI form)	3.b. Check if Any Discharge Points are Substantially Identical to Other Discharge Points Listed	3.c. Check if No Discharge	3.d. Monitoring Type IM, BM, ELG, S/T, I, O*	3.e. Parameter	3.f. Quantity or Concentration	3.g. Units	3.h. Results Description	3.i. Collection Date	3.j. Exceedance solely attributable to natural background pollutant levels per Part 5.2.6.1	3.k. Exceedance due to run-on per Part 5.2.6.2	3.l Exceedance due to an abnormal event per 5.2.6.3	3.m Exceedance but discharge does not result in any exceedance of water quality standards per Part 5.2.6.5	3.n Aluminum Exceedance demonstrated to not result in an exceedance of your facility-specific criteria per Part 5.2.6.4.a	3.o Copper Exceedance demonstrated to not result in an exceedance of your facility-specific criteria per Part 5.2.6.4.b
	<input type="checkbox"/> Substantially identical to discharge point: _____	<input type="checkbox"/>									<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Substantially identical to discharge point: _____	<input type="checkbox"/>									<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Substantially identical to discharge point: _____	<input type="checkbox"/>									<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Substantially identical to discharge point: _____	<input type="checkbox"/>									<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* IM - Indicator monitoring; BM - Benchmark monitoring; (ELG) - Annual effluent limitations guidelines monitoring; (S/T) - State- or tribal-specific monitoring; (I) - Impaired waters monitoring; (O) - Other monitoring as required by EPA

4. Comment and/or Explanation of Any Violations (Reference all attachments here)

G. Certification

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

First Name, Middle, Last Name

Title:

Signature: _____

Date: / /

E-mail:

Instructions for Completing EPA Form 6100-29

**Discharge Monitoring Report (DMR) for Stormwater Discharges
Associated with Industrial Activity Under the NPDES Multi-Sector General Permit**

OMB No. 2040-0300

Who Must Submit A Discharge Monitoring Report to EPA?

Facilities covered under EPA's NPDES Stormwater Multi-Sector General Permit (MSGP or permit) that are required to monitor pursuant to Parts 4.2 and 8 of the permit must submit Discharge Monitoring Reports (DMRs) consistent with the reporting requirements specified in Part 7.1 of the permit.

Completing the Form

Obtain and read a copy of the 2021 MSGP, viewable at <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities> To complete this form, type or print, using uppercase letters, in the appropriate areas only. Please place each character between the marks. Abbreviate if necessary to stay within the number of characters allowed for each item. Use only one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. Please submit original document with signature in ink - do not send a photocopied signature. **Photocopy your DMR form for your records before you send the completed original form to the appropriate address.**

Section A. Approval to Use Paper DMR Form

You must indicate whether you have been granted a waiver from electronic reporting from the EPA Regional Office. Note that you are not authorized to use this paper DMR form unless the EPA Regional Office has approved its use. Where you have obtained approval to use this form, indicate the waiver that you have been granted, the name of the EPA staff person who granted the waiver, and the date that approval was provided. See <https://www.epa.gov/npdes/contact-us-stormwater> for a list of EPA Regional Office contacts.

Section B. Permit Information

Provide the NPDES ID (i.e., NOI tracking number) assigned to the facility for which this DMR is being submitted.

Indicate your reason(s) for submitting this DMR by checking all boxes that apply. The reasons for submission are defined as follows:

- *Submitting monitoring data:* For each storm sampled, submit one DMR form with data for all discharge points sampled. Select this reason even if you only have monitoring data for some of your discharge points (i.e., some discharge points did not discharge). If you select this reason you are required to complete all Sections of the form.
- *Reporting no discharge for all discharge points for this monitoring period:* Indicates that there were no discharges from all discharge points during this monitoring period. If you select this reason you are only required to complete Sections A, B, C, D, E.1, and G.
- *Reporting that your site status has changed to inactive and unstaffed and there are no industrial materials or activities exposed to stormwater:* Indicates that your facility is currently inactive and unstaffed and there are no industrial materials or activities exposed to stormwater (See Part 4.2.1.3 of the permit for more information). If you select this reason you are only required to complete Sections A, B, C, D, and F.4 (include date of status change in comment field).

- *Reporting that your site status has changed from inactive to active and/or there are industrial materials or activities exposed to stormwater:* Indicates that your facility is currently active (See Part 4.2.1.3 of the permit for more information). If you select this reason you are required to complete all Sections of the form and include date of status change in the comment field in Section F.4.

Section C. Facility Operator Information.

Provide the legal name of the person, firm, public organization, or any other entity that operates the facility for which this DMR is being submitted. An operator of a facility is the legal entity that controls the operation of the facility. Refer to Appendix A of the permit for the definition of "operator". Provide the operator's mailing address, phone number, and e-mail. The operator information in this Section should match the operator information provided on your NOI form.

Provide the name, organization, phone number, an e-mail address for the person who prepared this DMR form.

Section D. Facility Information

Enter the official or legal name and complete street address, including city, state, ZIP code, and county or similar government subdivision of the facility. If the facility lacks a street address, indicate the general location of the facility (e.g., Intersection of State Highways 61 and 34). Complete facility information must be provided for permit coverage to be granted. The facility information in this Section should match the facility information provided on your NOI form.

Section E. Discharge Information.

Indicate the appropriate monitoring period (Quarter 1, 2, 3, or 4) covered by the DMR. "Alternative" monitoring periods can apply to facilities located in arid and semi-arid climates, or in areas subject to snow or prolonged freezing. To use alternative monitoring periods, you must provide a revised monitoring schedule here. If using alternative monitoring periods, identify the first day of the monitoring period through the last day of the monitoring period for each of the four periods. The dates should be displayed as month (Mo) / day (Day). See Parts 4.1.6 and 4.1.7 of the permit for more information.

If you are submitting benchmark monitoring data, identify if your facility is required to collect benchmark samples for one or more hardness-dependent metals (i.e., cadmium, lead, nickel, silver, and zinc). If you select "yes" to this question provide the hardness level of the receiving water (in mg/L). If you select "no" to this question, you must identify if your facility discharges into any saltwater receiving waters.

Instructions for Completing EPA Form 6100-29

**Discharge Monitoring Report (DMR) for Stormwater Discharges
Associated with Industrial Activity Under the NPDES Multi-Sector General Permit**

OMB No. 2040-0300

Section F. Monitoring Information

For the reported monitoring event indicate whether the discharge was from a rainfall or snowmelt event. If you select "rainfall" then indicate the duration (in hours) of the rainfall event, rainfall total (in inches) for that rainfall event, and time (in days) since the previous measurable storm event in line items 2.a-c. For both rainfall and snowmelt monitoring, you must identify the date of collection for the monitoring event in column 3.i. of the table. If the discharge occurs during a period of both rainfall and snowmelt, check both the rainfall and snowmelt boxes and report the appropriate rainfall information in item 2.a-c. To report multiple monitoring events in the same reporting period, copy this form and enter each monitoring event separately with data for all discharge points sampled.

Identify all the discharge points from your facility that discharge stormwater. Each discharge point must be assigned a unique 3-digit number (e.g., 001, 002, 003), and should match the discharge points identified on your NOI form.

If any discharge points are substantially identical, check the box in 3.b and identify the discharge point that the discharge point in 3.a is substantially identical to. In 3.d – k, you only need to provide benchmark monitoring data for one of the discharge points if it is substantially identical.

For any discharge point for which there was no discharge during the monitoring period, check the box in 3.c.

In 3.d, identify the type of monitoring using the specified codes, in parentheses, below:

- (IM) – Indicator monitoring
- (BM) – Benchmark monitoring
- (ELG) – Annual effluent limitations guidelines monitoring;
- (S/T) – State- or Tribal-specific monitoring;
- (I) – Impaired waters monitoring; or
- (O) – Other monitoring as required by EPA.

In 3.e, enter each "parameter" (or "pollutant") monitored. For BM and ELG monitoring, use the same parameter name as in Part 8 of the permit.

In 3.f., enter a sample measurement value for each parameter analyzed and required to be reported. Enter "ND" (i.e., not detected) for any sample results below the method detection limit or "BQL" (i.e., below quantitation limit) for sample results above the detection limit but below the quantitation limit.

In 3.g., enter the units for sample measurement values (i.e., "mg/L" for milligrams per liter) for each parameter analyzed and required to be reported. For monitoring results reported as ND or BQL this space will be left blank and the units will be reported in Column 3.f.

3.h. must be completed for any monitoring results reported as ND or BQL in the "Quality or Concentration" column. For ND, report the laboratory detection level and units in this column. For BQL, report the laboratory quantitation limit and units in this column.

In 3.i. identify the sampling date for each parameter monitoring result reported on this form.

3.j. *Exceedance solely attributable to natural background pollutant levels:* Check box if following the first 4 quarters of benchmark monitoring (or sooner if the exceedance is triggered by less than 4 quarters of data) you have determined that the exceedance of the benchmark is attributable solely to the presence of that pollutant in the natural background for that discharge point and any substantially identical discharge points, or for impaired waters

monitoring, the presence of the pollutant is caused solely by natural background, provided that all of the conditions in Part 5.2.6.1 are met.

3.k. *Exceedance due to run-on:* Check box if you can demonstrate and obtain EPA agreement that run-on from a neighboring source (e.g., a source external to your facility) is the cause of the exceedance, provided that the conditions in Part 5.2.6.2 are met.

3.l. *Exceedance due to an abnormal event:* Check box if one single sampling event is abnormal and you have immediately documented per Part 5.3 that the single event was abnormal and met all other conditions in Part 5.2.6.3.

3.m. *Exceedance but discharge does not result in any exceedance of water quality standards per Part 5.2.6.5:* Check box if you can demonstrate through an analysis that an exceedance triggering AIM requirements does not result in any exceedance of applicable water quality standards, provided that all the conditions in Part 5.2.6.5 are met.

3.n. *Aluminum exceedance demonstrated to not result in an exceedance of your facility-specific criteria per Part 5.2.6.4.a:* Check box if you can demonstrate through an analysis that an aluminum exceedance does not result in an exceedance of your facility-specific criteria using the national recommended water quality criteria in-lieu of the applicable MSGP benchmark threshold.

3.o. *Copper exceedance demonstrated to not result in an exceedance of your facility-specific criteria per Part 5.2.6.4.b:* Check box if you can demonstrate through an analysis that a copper exceedance does not result in an exceedance of your facility-specific criteria using the national recommended water quality criteria in-lieu of the applicable MSGP benchmark threshold.

Where violations of the permit requirements are reported, include a brief explanation to describe the cause and corrective actions taken, and reference each violation by date. Also, this section should include any additional comments such as are required when changing site status from inactive and unstaffed to active or vice versa. Attach additional pages if you need more space.

Attach additional copies of Section F as necessary to address all discharge points and parameters.

Section G. Certification Information


DMRs must be signed by a person described below, or by a duly authorized representative of that person.

For a corporation: By a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means:

(i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated

Appendix I - Annual Report Form

Part 7.2 requires you to use the NPDES eReporting Tool, or “NeT,” to prepare and submit your Annual Report. However, if you are given a waiver by the EPA Regional Office to use a paper annual report form, and you elect to use it, you must complete and submit the following form.

NPDES FORM 6100-28		UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460 ANNUAL REPORT FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY UNDER THE NPDES MULTI-SECTOR GENERAL PERMIT	OMB No. 2040-0300 Exp. Date: 3/31/2024
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A. Approval to Use Paper Annual Report Form

1. Have you been granted a waiver from electronic reporting from the EPA Regional Office*? YES NO

If yes, check which waiver you have been granted, the name of the EPA Regional Office staff person who granted the waiver, and the date of approval:

Waiver granted: The owner/operator's headquarters is physically located in a geographic area (i.e., ZIP code or census tract) that is identified as under-served for broadband Internet access in the most recent report from the Federal Communications Commission.

The owner/operator has issues regarding available computer access or computer capability

Name of EPA staff person that granted the waiver: _____

Date approval obtained: _/_/___

*** Note: You are required to obtain approval from the applicable EPA Regional Office prior to using this paper annual report form. If you have not obtained a waiver, you must file this form electronically using the NPDES eReporting Tool (NeT) at <https://www.epa.gov/npdes/stormwater-discharges-industrial-activities>**

B. Permit Information

1. NPDES ID: _____

C. Facility Information

1. Facility Name: _____

2. Phone: _____ Ext. _____

3. Facility Mailing Address:

Street: _____

City: _____ State _____ ZIP Code: _____

County or Similar Government Subdivision: _____

4. Point of Contact:

First Name, Middle Initial, Last Name: _____

D. General Findings

1. Provide a summary of your past year's routine facility inspection documentation, including dates (see Part 3.1.6 of the permit). In addition, if you are an operator of an airport facility (Sector S) that is subject to the airport effluent limitations guidelines, and are complying with the MSGP Part 8.S.9 effluent limitation through the use of non-urea-containing deicers, provide a statement certifying that you do not use pavement deicers containing urea (e.g., "Urea was not used at [name of airport] for pavement deicing in the past year and will also not be used in 2021." (Note: Operators of airport facilities that are complying with Part 8.S.9 by meeting the numeric effluent limitation for ammonia do not need to include this statement.)

2. Provide a summary of your past year's quarterly visual assessment documentation, including dates (see Part 3.2.3 of the permit).

3. Provide a summary of your past year's corrective action and/or additional implementation measures (AIM) documentation (See Part 5.3 of the permit). (Note: If corrective action is not yet completed at the time of submission of this annual report, you must describe the status of any outstanding corrective action(s).) Note that you must modify your SWPPP based on the corrective actions and deadlines required under Part 5. Also describe any incidents of noncompliance in the past year or currently ongoing, or if none, provide a statement that you are in compliance with the permit.

E. Certification Information

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

First Name, Middle, Last Name: _____

Title: _____

Signature: _____

Date: ___ / ___ / ___

E-mail: _____

Instructions for Completing EPA Form 6100-28

**Annual Report for Stormwater Discharges
Associated with Industrial Activity Under the NPDES Multi-Sector General Permit**

This Form Replaces Form 6100-28 (06/15) OMB No. 2040-0300

Who Must File an Annual Report

Operators must submit an Annual Report to EPA electronically, per Part 7.4, by January 30th for each year of permit coverage containing information generated from the past calendar year.

Completing the Form

To complete this form, type or print, using uppercase letters, in the appropriate areas only. Abbreviate if necessary to stay within the number of characters allowed for each item. Please submit original document with signature in ink - do not send a photocopied signature.

Section A. Approval to Use Paper Annual Report Form

You must indicate whether you have been granted a waiver from electronic reporting from the EPA Regional Office. Note that you are not authorized to use this paper form unless the EPA Regional Office has approved its use. Where you have obtained approval to use this form, indicate the waiver that you have been granted, the name of the EPA staff person who granted the waiver, and the date that approval was provided. See <https://www.epa.gov/npdes/contact-us-stormwater> for a list of EPA Regional Office contacts.

Section B. Permit Information

Provide the NPDES ID (i.e., NOI tracking number) assigned to your facility.

Section C. Facility Information

Enter the official or legal name, phone number, and complete street address, including city, state, ZIP code, and county or similar government subdivision, for the facility that is covered by the NPDES ID identified in Section B. If the facility lacks a street address, indicate the general location of the facility (e.g., Intersection of State Highways 61 and 34). Also provide a point of contact name for the facility.

Section D. General Findings

To complete this section you must provide the following information in your annual report:

1. A summary of your past year's routine facility inspection documentation, including inspection dates, required by Part 3.1.6 of the permit.
2. A summary of your past year's quarterly visual assessment documentation, including visual assessment dates, required by Part 3.2.3 of the permit.
3. Information copied or summarized from the corrective action and/or additional implementation measures (AIM) documentation required per Part 5.3 (if applicable). If corrective action and/or additional implementation measures are not yet completed at the time of submission of this Annual Report, you must describe the status of any outstanding corrective action(s)/additional implementation measures. You must also describe any incidents of noncompliance in the past year or currently ongoing, or if none, provide a statement that you are in compliance with the permit.

Section E. Certification Information

The Annual Report must be signed by a person described below, or by a duly authorized representative of that person.

For a corporation: By a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means:

Section E. Certification Information (continued)

(i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this Part, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA). Include the name and title of the person signing the form and the date of signing.

A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above;
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company, (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) and
3. The written authorization is submitted to the Director.

An unsigned or undated Annual Report form will be considered incomplete.

Paperwork Reduction Act Notice

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2040-0300). Responses to this collection of information are mandatory (40 CFR 122.26). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information is estimated to be 1 hour per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Instructions for Completing EPA Form 6100-28
Annual Report for Stormwater Discharges
Associated with Industrial Activity Under the NPDES Multi-Sector General Permit

This Form Replaces Form 6100-28 (06/15) OMB No. 2040-0300

Submitting Your Form

If you have been granted a waiver from your Regional Office to submit a paper Annual Report form, you must send your Annual Report form by mail to one of the following addresses:

For Regular U.S. Mail Delivery:

Stormwater Notice Processing Center
Mail Code 4203M, ATTN: 2020 MSGP Reports
U.S. EPA
1200 Pennsylvania Avenue NW
Washington, DC 20460

For Overnight/Express Mail Delivery:

Stormwater Notice Processing Center
William Jefferson Clinton East Building - Room 7420
ATTN: 2020 MSGP Reports
U.S. EPA
1201 Constitution Avenue NW
Washington, DC 20004

Visit this website for instructions on how to submit electronically:
<https://www.epa.gov/npdes/stormwater-discharges-industrial-activities-ereporting>

Appendix J

Previous Monitoring Data from 2006 to 2014

Effluent Characteristics, January 2010 - December 2013

Month	Flow, avg monthly MGD	Flow, max daily MGD	pH min s.u.	pH max s.u.	TSS, max daily lbs/day	TSS, avg monthly lbs/day	Oil and Grease lb/day	Oil and Grease mg/l	PCB lbs/day
Jan-10	0.116	3.521	7.98	7.98	1850	1850	0	0	1.27E-02
Feb-10	0.073	1.007	8.16	8.16	641.28	641.28	10.16	1.21	7.00E-04
Mar-10	0.395	2.538	8.14	8.47	21.1	21.1	0	0	4.02E-05
Apr-10	0.154	0.406	8.06	8.41	66.31	66.31	0	0	8.30E-05
May-10	0.104	0.706	7.75	8.1	96.78	96.78	0	0	3.11E-04
Jun-10	0.09	0.845	7.64	8.27	8.49	8.49	0	0	2.06E-05
Jul-10	0.11	1.39	8.37	9.11	0.2	0.2	0.5	40	1.96E-06
Aug-10	0.51	7.33	6.5	8.1	283.2	283.2	0	0	5.48E-05
Sep-10	0.07	2.17	7.55	7.55	660	660	23.04	1.27	1.61E-02
Oct-10	0.25	4.39	7.53	8.61	33	33	0	0	1.48E-04
Nov-10	0.04	0.84	7.57	7.92	18.7	18.7	1.8	2.02	1.40E-04
Dec-10	0.05	1.51	8.08	8.22	153.9	153.9	0	0	5.79E-04
Jan-11	F	F	F	F	F	F	F	F	F
Feb-11	F	F	F	F	F	F	F	F	F
Mar-11	0.22	2.07	7.72	8.31	11	11	24.5	1.42	2.63E-03
Apr-11	0.29	1.69	8.03	8.52	15.7	27	0	0	4.48E-05
May-11	0.11	0.37	8.13	8.66	1471.1	1471.1	0.2	1.37	1.29E-04
Jun-11	0.37	1.57	7.33	8.2	116.3	116.3	0	0	1.83E-04
Jul-11	0.11	1.39	8.34	9.11	0.2	0.2	0.5	40	1.96E-06
Aug-11	0.51	7.33	6.5	8.01	283.2	283.2	0	0	5.48E-05
Sep-11	0.71	3.86	7.58	7.76	500.6	500.6	0	0	1.31E-02
Oct-11	0.14	0.92	7.89	8.02	10.5	10.5	0	0	7.21E-04
Nov-11	0.11	1.93	8.03	8.13	12.6	12.6	0	0	5.42E-06
Dec-11	0.23	2.52	7.55	8.31	3.2	3.2	1.3	1.86	2.23E-04
Jan-12	0.21	0.24	7.66	8.3	7.2	7.2	0	0	4.14E-04
Feb-12	0.02	0.36	7.71	8.06	0.5	0.5	0.1	0.98	3.91E-05
Mar-12	0.02	0.16	8.04	8.43	1.35	1.35	0.04	1.62	2.55E-06
Apr-12	0.03	0.6	8.32	8.32	256.92	256.92	7.04	1.4	5.71E-04
May-12	0.11	0.88	8.19	9.14	148.73	148.73	2.33	1.6	2.08E-04
Jun-12	0.06	0.89	8.18	8.62	F	F	0	0	3.47E-05
Jul-12	0.01	0.19	7.36	7.36	F	F	F	F	F
Aug-12	0.12	2.29	7.7	7.7	5.26	5.26	F	F	F
Sep-12	0.06	0.68	7.55	7.55	33.14	33.14	0.83	1.11	7.39E-05
Oct-12	0.06	1.05	7.4	7.95	117.1	117.1	36.14	4.15	1.74E-03
Nov-12	F	F	F	F	F	F	F	F	F
Dec-12	0.05	0.98	8.39	8.39	77.3	77.3	8.4	2.9	4.31E-04
Jan-13	F	F	7.45	7.45	F	F	F	F	F
Feb-13	0.05	1.27	8.05	8.05	319.8	319.8	2.7	1.9	1.83E-04
Mar-13	0.05	1.08	7.47	8.6	736.3	736.3	17	1.89	1.05E-03
Apr-13	0.05	0.67	8.66	8.66	308.2	308.2	0	0	1.80E-04
May-13	0.27	1.42	7.71	7.71	39.5	39.5	7.7	1.96	7.14E-04
Jun-13	1.09	2.04	7.74	8.3	140.3	140.3	442.3	25.3	0.00E+00
Jul-13	NS	NS	7.94	8.16	72.5	72.5	0	0	2.21E-04
Aug-13	NS	NS	7.9	7.9	166.1	166.1	29	1.24	2.54E-03
Sep-13	0.07	1.73	7.55	7.68	32.7	32.7	0	0	1.32E-04
Oct-13	F	F	7.47	7.47	F	F	F	F	F
Nov-13	0.07	1.73	7.55	7.48	32.7	32.7	0	0	1.32E-04
Dec-13	0.025	0.396	7.92	7.92	66.5	66.5	16.2	5.43	3.94E-04
1992 Permit Limits	1.1	2.55	6	9	628	138	319	15	Report
Minimum	0.01	0.16	6.5	7.36	0.2	0.2	0	0	1.96E-06
Average	0.2	1.8	7.8	8.2	227.6	228.0	3.6	3.3	0.0
Maximum	0.71	7.33	8.37	9.14	1850	1850	36.14	40	0.0161
Standard Deviation	0.2	1.8	0.4	0.4	433.4	433.2	8.7	10.0	0.0
# measurements	36	36	36	36	36	36	36	36	36
# exceed 1992 permit limit	0	5	0	3	5	15	1	3	N/A

bold = exceeds 1992 permit limit

N/A = not applicable

PCB = Polychlorinated biphenyl

TSS = Total Suspended Solids

F = not sampled due to insufficient flow

NS = Not sampled due to equipment issues

Effluent Characteristics, January 2010 - December 2013

PCB Data, Outfall 001		
Date	Total PCBs (µg/L)	Reporting Limit (µg/L)
1/26/2010	0.376	0.065
2/26/2010	0.0414	0.065
3/17/2010	0.0789	0.065
4/9/2010	0.027	0.065
5/14/2010	0.0723	0.065
6/15/2010	0.0247	0.065
7/27/2010	0.737	0.065
8/1/2010	F	F
9/30/2010	0.885	0.065
10/7/2010	0.1043	0.065
11/5/2010	0.154	0.065
12/1/2010	0.0458	0.065
1/1/2010	F	F
2/1/2010	F	F
3/11/2011	0.1523	0.065
3/22/2011	0.0508	0.065
4/2/2011	0.0639	0.065
4/12/2011	Non-detect	0.065
5/16/2011	0.1129	0.065
6/23/2011	0.0888	0.065
7/19/2011	0.1645	0.065
8/16/2011	0.1093	0.065
9/7/2011	0.406	0.065
10/14/2011	0.1051	0.065
11/18/2011	0.0548	0.065
12/9/2011	0.3237	0.065
1/13/2012	0.2037	0.065
2/6/2012	0.3745	0.065
3/23/2012	0.1013	0.065
4/23/2012	0.1137	0.065
5/9/2012	0.1426	0.065
6/4/2012	0.1393	0.065
7/1/2012	F	F
8/1/2012	F	F
9/19/2012	0.0991	0.065
10/19/2012	0.1983	0.065
11/1/2012	F	F
12/18/2012	0.1326	0.065
1/1/2013	F	F
2/28/2013	0.1294	0.065
3/14/2013	0.1162	0.065
4/12/2013	0.0571	0.065
5/24/2013	0.1812	0.065
6/7/2013	Non-detect	0.065
7/26/2013	0.0489	0.065
8/12/2013	0.1086	0.065
9/13/2013	0.0778	0.065
10/1/2013	F	F
11/1/2013	0.0456	0.065
12/23/2013	0.1318	0.065
minimum	0.0247	
average	0.164505	
maximum	0.885	

Silver Lake Pre-Remediation PCB Data

Silver Lake
 Pre-construction surface water results
 Samples collected at outlet to Housatonic River

Date	Total PCBs (µg/L)	Date	Total PCBs (µg/L)
12/19/2006	0.181	4/29/2010	0.193
1/24/2007	0.103	6/2/2010	0.269
2/28/2007	0.123	6/29/2010	0.409
3/20/2007	0.044	7/28/2010	0.297
4/26/2007	0.223	8/26/2010	0.372
5/30/2007	0.41	9/22/2010	0.297
6/28/2007	0.362	10/28/2010	0.08
7/26/2007	0.576	11/18/2010	0.093
9/5/2007	0.799	12/16/2010	0.071
9/26/2007	0.93	2/4/2011	0.094
10/30/2007	0.411	3/1/2011	0.141
11/27/2007	0.319	3/30/2011	0.058
12/20/2007	0.203	4/28/2011	0.039
1/29/2008	0.164	5/26/2011	0.149
2/28/2008	0.088	6/29/2011	0.165
3/26/2008	0.255	7/26/2011	0.525
4/30/2008	0.317	8/31/2011	0.273
5/28/2008	0.433	9/29/2011	0.23
6/25/2008	0.518	10/25/2011	0.181
7/31/2008	0.502	11/29/2011	0.201
8/26/2008	0.381	12/20/2011	0.129
9/24/2008	0.293	1/19/2012	0.127
10/30/2008	0.218	2/16/2012	0.132
11/18/2008	0.131	3/29/2012	0.177
12/16/2008	0.1	4/25/2012	0.214
1/22/2009	0.085	5/24/2012	0.358
2/26/2009	0.128	6/28/2012	0.786
3/26/2009	0.13	7/19/2012	0.697
4/28/2009	0.156	Average	0.264
5/28/2009	0.351	Maximum	0.930
6/25/2009	0.377	Minimum	0.044
7/21/2009	0.253	# of samples	0
8/27/2009	0.281	Results are a summation of quantified Aroclors	
9/24/2009	0.287		
10/29/2009	0.137		
11/19/2009	0.392		
12/18/2009	0.128		
1/21/2010	0.142		
2/23/2010	0.1		
3/25/2010	0.13		

Silver Lake Post-Remediation PCB Data

Silver Lake Post-Remediation PCB Data

All data collected at lake discharge channel

Date	Total PCBs (µg/L)	Laboratory	Notes
10/14/2013	0.04	GE	First data with dam removed
10/29/2013	0.06	GE	Start of monthly sampling
11/21/2013	0.038	GE	
12/19/2013	0.028	GE	
1/28/2014	ND (0.022)	GE	
2/20/2014	0.038	GE	
3/27/2014	0.044	GE	
4/24/2014	ND (0.010)	EPA/Weston	Split Sample
4/24/2014	0.063	GE	
5/21/2014	0.08	GE	
6/26/2014	0.097	GE	
7/22/2014	0.004	EPA/CLP	Split Sample
7/22/2014	ND (0.010)	EPA/Weston	Split Sample
7/22/2014	0.094	GE	GE DATA
median	0.044		

Notes:

1. Results are a summation of quantified Aroclors
2. ND = Non-detect with the detection limit shown in parenthesis
3. GE's laboratory was Pace Analytical Services
4. EPA/Weston laboratory was Test America, Burlington, Vermont
5. EPA/CLP is laboratory contracted by EPA under the Contract Lab Program

Appendix K

Documentation and Correspondence of Effluent Exceedances