



**STORMWATER POLLUTION PREVENTION PLAN**

**FOR**

**TOWN OF MIDDLEBOROUGH  
WATER POLLUTION CONTROL FACILITY  
JOE CIAGLO WAY  
MIDDLEBOROUGH, MA 02346**

**Original Date of Plan:** February 27, 2003  
**Date of Last Plan Amendment:** May 11, 2016  
**Date of Last Plan Review:** May 11, 2016

# CERTIFICATION

The Town of Middleborough Water Pollution Control Facility (WPCF) is committed to the prevention of pollutant discharge to navigable waters and the environment. This Stormwater Pollution Prevention Plan (SWPPP) has been prepared in accordance with good engineering practices.

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.

Authorized Facility Representative: Todd A. Goldman

Title: Wastewater Superintendent

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Wright-Pierce Facility Consultant: Gregory McVeigh, P.E.

Title: Project Manager

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

## **STORMWATER POLLUTION PREVENTION PLAN COMPLIANCE REVIEW AND AMENDMENT REVIEW PAGE**

A comprehensive compliance evaluation and inspection of the entire site in all areas where materials or activities are exposed to stormwater and a review of this SWPPP will be conducted once every year or following a significant change, as described below. As a result of the evaluation, inspection and review the Town of Middleborough Water Pollution Control Facility (WPCF) personnel may amend the SWPPP. The SWPPP will be amended if: WPCF personnel's inspection or a State or Federal inspector determines that a specific practice is not effective in controlling stormwater pollutants or preventing pollution from being discharged from the Facility; and/or any significant change in the Facility's design, construction, operation, or maintenance materially affects the Facility's stormwater discharge.

Amendments to the SWPPP will describe the activities that contribute to an increase in pollution and the planned control measures. The amendment will include more effective stormwater BMPs if: such technology will significantly reduce the likelihood of contaminated stormwater discharges from the Facility; and if such technology has been field proven at the time of evaluation, inspection and review.

Amendments will be made within 14 calendar days following the comprehensive evaluation and inspection or a significant change or a review of the SWPPP, which ever is earliest. The Amendment Review page in the front of the SWPPP must be completed and the amendment placed behind the Amendment Review page. If the amendment causes a significant change in the SWPPP then the SWPPP will need to be modified and the SWPPP will need to be re-certified.

Implementation must be completed before the next anticipated storm event, if practical, but not more than 12 weeks after annual review and evaluation.

	<b>Description of Modification</b>	<b>Review/Amendment Date</b>	<b>Project Manager's Signature</b>
	Update for 2015 MSGP	5/11/16	

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## 1. FACILITY DESCRIPTION AND CONTACT INFORMATION

### 1.1. Facility Information

Name of Facility: Middleborough Water Pollution Control Facility

Street: Joe Ciaglo Way

City: Middleborough

State: Massachusetts

ZIP Code: 02346

County: Plymouth

Telephone No. : (508) 946-2485

WPCF Latitude/Longitude : 41° 54' 30" N, 70° 54' 13" W

Method for determining latitude/longitude was via Google Earth

Est. site acreage - Approximately 11.35

Est. acres of impervious area (process units, buildings & pavement) - 3

Est. acres of industrial activity at WPCF site exposed to stormwater - 0.02

Are facilities located in Indian Country? No

Are facilities considered a Federal Facility? No

### 1. 2 Discharge Information

Do these facilities discharge stormwater into an MS4? No

Water that receives stormwater from your facilities – Class B, Nemasket River (Taunton River Basin, State Code - MA62-26).

Are any of your discharges **directly** into any segment of “impaired” water? No.

Pollutant(s) listed as causing the impairment are: None.

For pollutants identified, which do you have reason to believe will be present in your discharge? None.

For pollutants identified, which have a completed TMDL? None

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

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

Sector of Industrial Activity Covered by the 2015 MSGP, 2-letter Activity Code: TW

Applicable sector and subsector: Sector T: Treatment Works, subsector T1

### 1.3. Contact Information for Responsible Parties

#### Facility Owner:

Name: Town of Middleborough

Address: 10 Nickerson Avenue

City: Middleborough

State: Massachusetts

ZIP Code: 02346

County: Plymouth Telephone No. : (508) 946-2480

Fax No: (508) 946-2484

Email address: Public Works Director - cpeck@middleborough.com

#### Facility Operator:

Name: Town of Middleborough

Address: Joe Ciaglo Way

City: Middleborough State: Massachusetts ZIP Code: 02346  
 County: Plymouth Telephone No. : (508) 946-2485 Fax No: (508) 946-2484  
 Email address: Todd Goldman (tgldmn@middleborough.com)  
 Fax number: (508) 946-2484

**SWPPP Contact:**

Company: Town of Middleborough  
 Name: Todd Goldman  
 Address: Joe Ciaglo Way  
 City: Middleborough State: Massachusetts ZIP Code: 02346  
 County: Plymouth Telephone No. : (508) 946-2485 Fax No: (508) 946-2484  
 Email address: Todd Goldman (tgldmn@middleborough.com)

**1.4. Stormwater Pollution Prevention Team**

Team Member	Individual Responsibilities
Todd Goldman, Superintendent/Chief Operator	Responsible for administration, operation, and maintenance of treatment facility. Coordinates all stages of plan development, inspections and implementation; keeps records and ensures that reports are submitted; and oversees the sampling program.
Craig Smail Senior Operator	Responsible for operation and maintenance of treatment facility. Coordinates/conducts inspections and employee training programs; serves as spill response coordinator; as well as for documentation of results and preparation of draft reports for review by the Superintendent/Chief Operator.

**1.5. Activities at Middleborough Water Pollution Control Facility**

The Town of Middleborough owns and operates a municipal wastewater treatment plant off Joe Ciaglo Way adjacent to the Nemasket River. Figure 1 shows a Location Plan of the Middleborough WPCF site.

The Facility consists of: a Control Building; Pretreatment Building with septage receiving & holding tank; four aeration basins; two primary and two secondary clarifiers; leachate receiving and holding tank; Maintenance Garage; Tertiary Treatment Building; Post Chlorination Tanks; Post Aeration Tank; Sludge Dewatering Building; an onsite stormwater sewer collection system (8 catch basins, 6 drain manholes) and an outfall into the Nemasket River near the Sludge Dewater Building; chemical and fuel tank facilities; paved drive areas, paved parking for Town vehicles and paved areas to access appurtenances. Figures 2 and 3 show Site Plan of the Middleborough WPCF.

The Facility has one administrative vehicle, two pickup trucks (with plows) and two dewatered sludge hauling vehicles. Minor maintenance, i.e. oil changes of gasoline powered

equipment, is performed inside the Maintenance Garage. Vehicle and truck maintenance is performed at the Highway Department garage at 48 Wareham Street.

The Maintenance Garage & Garage store: one sewer rodder, one sewer flusher, one trailer mounted generator and one utility trailer; lubricants in 5 gallon pail quantities; used lubricants in a 30 gallon carboy; gasoline in 6 gallon containers in a ventilated, locked storage cabinet; and miscellaneous equipment and materials. Used lubricants are ultimately disposed at the recycling facility operated by the Town of Middleborough at the Brock Street Landfill. Fueling is limited to the fork truck, lawn tractor, lawn mowers, and other gasoline operated pumps, ventilation blowers, chain saws, etc. Plant vehicles are not fueled on site. Vehicle fueling occurs at the Town Fueling Facility located at the Police Station.

The Middleborough Water Pollution Control Facility was designed for an average flow rate of 2.16 mgd and a maximum daily flow of 7.1 mgd. Approximately 200,000 to 350,000 gpd of industrial wastewater from Ocean Spray is conveyed to the WPCF via the town's collection system. The WPCF currently discharges an average flow rate of approximately 1.15 mgd into the Nemasket River in the Taunton River watershed. The Facility was constructed in 1975 and dedicated in 1977.

Flow through the facility is entirely by gravity. Preliminary treatment for raw wastewater, industrial wastewater, leachate, septage and yard pumps consists of: two manual bar racks (coarse and fine) and/or mechanical bar screen with wash press; covered 6 yard dumpster for screenings & grit stored outside; ferric chloride is added after the screens for seasonal phosphorous removal; an aerated grit chamber with grit conveyor, grit hydrocyclone/classifier, grit cart and muffin monster grit grinder and grit pumps. After preliminary treatment the wastewater flows through a splitter to two primary clarifiers.

Flow then enters the primary influent channel and one of four activated sludge aeration basins, each with a capacity of 1 mgd. Two aeration basins have each been designed with a 5-Stage Bardenpho process. Normal operation is for the facility to run one of the two redesigned aeration basin at a time, with the other basins providing storage during periods of high flow. Hyperbolic mixers provide anoxic zone mixing. Hyperbolic mixer/aerators with blowers provide the aerobic zone mixing. Sodium hypochlorite is added to return sludge box in the first 2 anoxic zones, as needed. Methanol (supplemental carbon) is added to all anoxic zones as needed. Flow exits the aeration basin via the effluent channel and into the secondary splitter box where ferric chloride is added for seasonal phosphorous removal before flow continues to the two secondary clarifiers.

Secondary effluent then flows through a flow metering chamber into a splitter box with sodium hypochlorite addition and phosphate analysis. The sodium hypochlorite chlorination system is flow paced from the flowmeter signal. From the splitter box flow is to a rapid mix tank with ferric chloride addition and then into two flocculation tanks, each with polymer addition and outlets into the two tertiary treatment disk filters. Flow from tertiary treatment disk filters is into a collection box with phosphate analysis then to the chlorine contact

chamber with an induction mixer for sodium hypochlorite and a chlorine analyzer. Flow is into and through the two post chlorination chamber. Flow cascades over the weirs in the post chlorination chambers and is analyzed for chlorine before flowing into a post aeration tank. The same flow signal is repeated for the dechlorination system which feeds sodium bisulfite into post aeration tank. Prior to discharge into the Nemasket River the effluent is surfaced aerated/mixed in the post aeration tank. Composite samples are taken from the end of the post aeration tanks. From the post aeration tank the effluent flows through a 30" pipe and an exposed channel to the Nemasket River. (NPDES PERMIT MA0101591)

The solids handling facilities abut the south end of the Control Building and east wall of Aeration Basin No. 1 and include: a waste sludge holding tank with a hyperbolic mixer; a primary sludge holding tank with two hyperbolic mixer/aerators with air from aeration blowers; and two dewater screw presses. The primary and waste activated sludge holding tanks have provisions to decant supernatant via both valves and pumping to increase solids feed to the screw presses. Pumps from the holding tanks have the capability to co-mingle waste streams during dewatering. A liquid cationic polymer is used to flocculate the sludge.

Solids are dewatered through two dewater screw presses located on the first floor of the Sludge Building. The sludge is typically dewatered to 20% to 25% solids concentration. The dewater sludge is dropped into covered 6 cubic yard dumpsters. Solids dewatering typically occurs 8 hrs. a day, four to five days per week. The sludge cake is disposed in the Town owned Middleborough Landfill where it is co-mingled with municipal solid waste and buried in a lined landfill. The Middleborough Landfill is operated by Waste Management. The method of "tipping" the dumpster by the truck allows for some residual sludge to adhere to the dumpster and truck. Subsequent movement of the truck or dumpster will result in some product reaching the ground. Any dewater sludge spill or incidental drips or leaks common to motor vehicles occurring on asphalt impervious surfaces would be cleaned up with granular absorbent material.

Leachate from the Middleborough Landfill and the 56,000 gpd of leachate from 23 other communities is trucked to the WPCF for disposal in the 188,000 gallon leachate mixed holding tank. The leachate is combined with the primary influent for treatment. Leachate is discharged at the leachate receiving station located adjacent to the circular leachate holding tank and abuts the leachate/septage receiving looped drive. Leachate is discharged into the leachate tank via a two capped 6" quick connection couplings. Any spill within the receiving pad will be contained, captured and removed by the 4" drain to the leachate tank drain. Any spill or incidental drips or leaks common to motor vehicles occurring on asphalt impervious surfaces would be cleaned up with granular absorbent material.

20,000 gpd of septage and grease from the Towns of Middleborough and Lakeville are disposal in the 172,000 gallons septage mixed holding tank. Septage is combined with the primary influent for treatment. Septage is discharged at the septage receiving station located adjacent to the septage holding tank & Pretreatment Building and abuts the drive up to the leachate/septage receiving looped drive. Septage is discharged into the rock trap bar screen

via one capped 4" quick connection coupling. The rock trap bar screen drains into the septage holding tank. Any spill within the receiving pad will be contained, captured and removed by the 4" drain to the rock trap bar screen. Any spill or incidental drips or leaks common to motor vehicles occurring on asphalt impervious surfaces would be cleaned up with granular absorbent material.

Chemicals or diesel fuel used at the facility are stored: inside in drums on containment pallets; outside in black double walled XHDPE tanks with no containment with leak detection; covered outside area in translucent single wall XHDPE within containment; covered outside stainless steel tank within concrete encasement secondary containment with leak detection; or outside in steel tank within concrete encasement secondary containment with leak detection. All materials handled from delivery vehicles to the point of fill connection, occurs outdoors. The following materials are received onsite:

- 38% Ferric Chloride, for phosphorous removal is received by bulk delivery. A plant employee is present to observe offloading operations. The two 5,400 gallon double walled XHDPE ferric chloride storage tanks have leak detection, a common vent, and equalization line, an overflow to the yard pump station and are located on a concrete pad (with the sodium bisulfite tank) adjacent to Tertiary Treatment Building Chemical Pump Room and Sludge Dewatering Building. The tanks are filled via separate 3" fill lines with spill containment provisions for each fill connection. Any spill or incidental drips or leaks common to motor vehicles occurring on asphalt impervious surfaces would be cleaned up with granular absorbent material.
- Polymer, for sludge dewatering and tertiary treatment is received in and metered from 55 gallon drums located on containment pallets. Typically 12 drums (3 pallets) are received, offloaded with a fork truck, and stored indoors in either the Sludge Dewatering Building or the Tertiary Treatment Building Chemical Pump Room. Polymer is dispensed indoors into either two dewatering polymer systems or one tertiary polymer system and poses no stormwater contamination potential. Any product release during change out of drums would be captured by the containment. Any incidental drips or leaks common to motor vehicles occurring on asphalt impervious surfaces would be cleaned up with granular absorbent material.
- 12.5% Sodium Hypochlorite, for disinfection, is received by delivered by bulk delivery. A plant employee is present to observe offloading operations. The two 1,150 gallon single walled XHDPE with LLDPE liner sodium hypochlorite storage tanks have a common vent, an equalization line, an overflow into the storage tank's concrete containment, containment level indicator/alarm and are located within the Sludge Dewatering Building. The tanks are filled via separate 3" fill lines with spill containment provisions for each fill connection. Any spill or incidental drips or leaks common to motor vehicles occurring on asphalt impervious surfaces would be cleaned up with granular absorbent material.

- 38% Sodium Bisulfite, used for dechlorination is received by bulk delivery. A plant employee is present to observe offloading operations. The 1,000 gallon double walled XHDPE sodium bisulfite storage tank has leak detection, a vent, an overflow to the yard pump station and is located on a concrete pad (with the ferric chloride tanks) adjacent to Tertiary Treatment Building Chemical Pump Room and Sludge Dewatering Building. The tank is filled via a 3" fill lines with spill containment provisions for the fill connection. Any spill or incidental drips or leaks common to motor vehicles occurring on asphalt impervious surfaces would be cleaned up with granular absorbent material.
- Methanol, used for a supplemental carbon source is received by bulk delivery. A plant employee is present to observe offloading operations. The 5,200 gallon stainless steel concrete encasement secondary containment methanol Convault tank has leak detection, a vent (with flame arrestor & pressure/vacuum relief valve), secondary emergency vent, vapor capture system, and is located on a canopy covered concrete pad adjacent to southwest end of Aeration Tank No. 1. The tank is filled via a direct fill and spill containment with overflow protection. Any spill or incidental drips or leaks common to motor vehicles occurring on asphalt impervious surfaces would be cleaned up with granular absorbent material.
- Diesel, used for emergency generator is received by bulk delivery. A plant employee is present to observe offloading operations. The 4,000 gallon steel concrete encasement secondary containment diesel Convault tank has leak detection, a vent (with flame arrestor & pressure/vacuum relief valve), secondary emergency vent, and is located on a concrete pad adjacent to Generator Room in south end of Maintenance Garage. The tank is filled via a direct fill and spill containment with overflow protection. Any spill or incidental drips or leaks common to motor vehicles occurring on asphalt impervious surfaces would be cleaned up with granular absorbent material.

## **1.6. Receiving Waters and Wetlands**

The Middleborough WPCF site is situated an oxbow of property adjacent to the Nemasket River and its adjoining vegetative wetlands. The NW corner and north side of WPCF aeration tanks abuts the vegetative wetlands. See Appendix 9 for MassDEP Wetland Map.

Portions of the north and west sides of WPCF aeration tanks are within the FEMA 100 year Flood Zone (Elev. 26.817). See Appendix 10 for FEMA Mapping.

Properties across the Nemasket River to the west, north and east of the Facility site are wooded and undeveloped.

## **2. POTENTIAL POLLUTANT SOURCES**

Materials used by the Middleborough WPCF and activities that are exposed to precipitation or stormwater are listed below by risk.

Figure 1  
Middleborough WPCF Location Plan

Figure 2  
Middleborough WPCF Site Plan

Figure 3  
Middleborough WPCF Site Plan

## **2.1. Summary of Areas, Activities and Materials which Pose a High Risk of Contaminating Stormwater**

There are no areas at the Middleborough WPCF that have a high risk of contributing pollutants to stormwater discharges.

## **2.2. Summary of Areas, Activities and Materials which Pose a Low to No Risk of Contaminating Stormwater**

Table 1 outlines areas that have low or no risk of contributing pollutants to stormwater discharges. Continue to minimize or eliminate the potential for contamination of stormwater in these areas. Appropriate areas have been identified on the Middleborough WPCF, Figures 2 and 3.

- Emergency Generator Fuel Tank Fill Area SOP – Diesel fuel is received by bulk delivery. The fuel tank fill area is situated outside but adjacent to the Maintenance Building Generator Room. Filling occurs by way of a hose routed from the fuel truck to the fill sump located on top of the DW tank. A fill connection spill is contained within the fill containment sump. Prior to connecting the hose to the fill connection and commencing discharge, the supplier is required to have in place to a spill bucket/pan to capture any drips/leaks/spills from fitting/hose during disconnection of the hose. Once discharge is complete the supplier is responsible for wiping bucket/pan of any spilled materials, review area for other spillage and clean up, as necessary. A hose spill occurring at the fill area will be contained on the ground around the tank. A spill or incidental drips or leaks common to motor vehicles by the fuel truck will onto the paved area in front of the Maintenance Building. Flows onto paved area are toward catch basin #6A or #6B.
- Mechanical Bar Wash Press Screenings & Grit Removal Dumpster by the Pretreatment Building - If material is dumped on the paved area around dumpster or tracked on to paved surfaces, screenings, liquid or combination of residuals may contaminate stormwater flowing toward the nearest drive catch basin. Flows in this area are toward drive catch basin #5A.
- Dumpster Storage Area around at the WPCF – Personnel keep dumpster lids closed. They understand there is a risk of contamination when a dumpster is left open on paved surfaces. Pollutants or incidental drips or leaks common to motor vehicles on paved surfaces will contaminate stormwater flowing across the paved surface towards grassed areas or drive catch basins.
- Dewater Sludge from Dewater Building - If incidental drips or leaks common to motor vehicles or dewater sludge is tracked onto pavement, residue sludge on the dewatering floor may contaminate stormwater flowing across the paved surface towards and into grassed and vegetated areas adjacent River.

- Leachate Receiving Area SOP - Prior to connecting the hose to the receiving port and commencing discharge, the hauler is to place a 5 gallon bucket under the trucks discharge connection to capture any drips/leaks/spills from fitting/hose during connect, discharge or disconnection of the hose. Once disposal is complete the hauler is responsible for emptying bucket of any spilled materials into drain, cleaning bucket, review area for other leachate/septage spillage and clean up, as necessary. If incidental drips or leaks common to motor vehicles or leachate is tracked on to paved surfaces, liquid or combination of residuals may contaminate stormwater flowing toward sediment forebay pretreatment. Flows in this area are toward sediment forebay pretreatment.
- Septage Receiving Area SOP - Prior to connecting the hose to the receiving port and commencing discharge, the hauler is to place a 5 gallon bucket under the trucks discharge connection to capture any drips/leaks/spills from fitting/hose during connect, discharge or disconnection of the hose. Once disposal is complete the hauler is responsible for emptying bucket of any spilled materials into drain, cleaning bucket, review area for other leachate/septage spillage and clean up, as necessary. If incidental drips or leaks common to motor vehicles or septage is tracked on to paved surfaces, screenings, liquid or combination of residuals may contaminate stormwater flowing toward sediment forebay pretreatment. Flows in this area are toward sediment forebay pretreatment.
- Ferric Chloride Tanks by Tertiary Treatment Building Chemical Pump Room and Sludge Dewatering Building SOP – Ferric Chloride is received by bulk delivery. The two 3” quick disconnect coupling tank fill connections are situated outside. Filling occurs by way of a hose routed from the truck to the fill connection located by the tank. A minor fill connection spill will be into a spill bucket/pan on tank concrete pad. Prior to connecting the hose to the fill connection and commencing discharge, the supplier is to place a spill bucket/pan under the trucks discharge connection to capture any drips/leaks/spills from fitting/hose during connect, discharge or disconnection of the hose. Once discharge is complete the supplier is responsible for wiping bucket/pan of any spilled materials, review area for other spillage and clean up, as necessary. A major fill connection spill or hose spill occurring at the fill area will be either on the concrete pad or onto the adjacent paved area. A spill by the truck will onto the adjacent paved area. Any spill onto the pad or incidental spill or drips or leaks common to motor vehicles onto the paved area may contaminate stormwater flowing across the paved surface towards and into grassed and vegetated areas adjacent to River.
- Sodium Bisulfite Tank by Tertiary Treatment Building Chemical Pump Room and Sludge Dewatering Building SOP – Sodium Bisulfite is received by bulk delivery. The 3” quick disconnect coupling tank fill connection is situated outside. Filling occurs by way of a hose routed from the truck to the fill connection located by the tank. A minor fill connection spill will be into a spill bucket/pan on tank concrete pad. Prior to connecting the hose to the fill connection and commencing discharge, the supplier is to place a spill bucket/pan under the trucks discharge connection to capture any drips/leaks/spills from fitting/hose during connect, discharge or disconnection of the hose. Once discharge is

complete the supplier is responsible for wiping bucket/pan of any spilled materials, review area for other spillage and clean up, as necessary. A major fill connection spill or hose spill occurring at the fill area will be either on the concrete pad or onto the adjacent paved area. A spill by the truck will be onto the adjacent paved area. Any spill onto the pad or incidental spill or drips or leaks common to motor vehicles onto the paved area may contaminate stormwater flowing across the paved surface towards and into grassed and vegetated areas adjacent to River.

- Sodium Hypochlorite Tanks in Sludge Dewatering Building SOP – Sodium Hypochlorite is received by bulk delivery. Thought the tanks are inside the two 3” quick disconnect coupling tank fill connections are situated outside. Filling occurs by way of a hose routed from the truck to the fill connection located by the tank. A minor fill connection spill will be into a spill bucket/pan on tank concrete pad. Prior to connecting the hose to the fill connection and commencing discharge, the supplier is to place a spill bucket/pan under the trucks discharge connection to capture any drips/leaks/spills from fitting/hose during connect, discharge or disconnection of the hose. Once discharge is complete the supplier is responsible for wiping bucket/pan of any spilled materials, review area for other spillage and clean up, as necessary. A major fill connection spill or hose spill occurring at the fill area will be either on the concrete pad or onto the adjacent paved area. A spill by the truck will be onto the adjacent paved area. Any spill onto the pad or incidental spill or drips or leaks common to motor vehicles onto the paved area may contaminate stormwater flowing across the paved surface towards and into grassed and vegetated areas adjacent to River.
- Polymer Drums in Tertiary Treatment Building Chemical Pump Room and Sludge Dewatering Building – Polymer drums for the Tertiary Treatment Building Chemical Pump Room and Sludge Dewatering Building are delivered on covered pallets. The drums are stored within the Tertiary Treatment Building Chemical Pump Room and Sludge Dewatering Building. An outside spill from delivered drums is unlikely but will occur only if a drum is dropped. The spill will be to the paved areas by the Sludge Dewatering Building or Tertiary Treatment Building Chemical Pump Room. Any spill or drips or leaks common to motor vehicles onto the paved area may contaminate stormwater flowing across the paved surface towards and into grassed and vegetated areas adjacent to River.
- Covered Methanol Tank by Aeration Basins – Methanol is received by bulk delivery. The tank fill area is situated outside but under a cover canopy adjacent to the Aeration Basin No. 1. Filling occurs by way of a 4” hose routed from the fuel truck to the fill sump located on top of the DW tank. A fill connection spill is contained within the fill containment sump. A hose spill occurring at the fill area will be contained on the ground around the tank. A spill at the truck, drips or leaks common to motor vehicles will be onto the paved area, adjacent to the aeration basin may contaminate stormwater flowing toward sediment forebay pretreatment.

- Entrance Gate Area with Anti-Track Pad – Off site materials if tracked on to paved surfaces, liquid or combination of residuals may contaminate stormwater flows. Flows in this area are toward sediment forebay pretreatment.

**Table 1**

**Activities with a Low or No Risk of Contaminating Stormwater**

<b>Activity</b>	<b>Pollutant Materials</b>	<b>Current Practices</b>	<b>Current Practices</b>
Emergency Generator fill area has a low risk of stormwater contamination.	Diesel, oily sheen	DW tank has fill with spill containment. Granular absorbent material, spill absorbent pads or materials are used to cleanup spills, see SPCC Plan.	Plant personnel observe deliveries. A delivery notice and recordkeeping system is in order to track the dates and times of all diesel deliveries.
Manual & mechanical bar screenings discharged and transported from WPCF offsite has a low risk of stormwater contamination.	Grit, oil, rags, liquid from wet screenings, TSS, heavy metals, nitrate, fecal coliform	Washed screening & grit dumpsters are emptied outside Pretreatment Building.	Screenings & grit container handling is monitored during discharge into dumpster. Spills are cleaned up to prevent tracking screenings or liquids onto paved surfaces and contaminating stormwater.
Ferric Chloride has a low risk of stormwater contamination.	iron, chloride, pH, TDS	DW tank has bucket for delivery connection spills. Granular absorbent material, spill absorbent pads or other materials are used to cleanup spills.	Plant personnel observe deliveries. A delivery notice and recordkeeping system is in order to track the dates and times of all chemical deliveries.
Septage has a low risk of stormwater contamination.	Screenings, TDS, TSS, ammonia, nitrate, BOD, sulfate, hardness, alkalinity oil, fuel, hydraulic fluids.	There is a drain at the receiving station to contain spills. The hauler is responsible to review area and clean up any spills on the pavement.	Granular absorbent material, spill absorbent pads or other materials are provided for haulers to cleanup spills.
Sodium Hypochlorite has a low risk of stormwater contamination.	Sodium, chlorine, pH, TDS	Tanks have containment with bucket for delivery connection spills. Granular absorbent material, spill absorbent pads or other materials are used to cleanup delivery spills.	Plant personnel observe deliveries. A delivery notice and recordkeeping system is in order to track the dates and times of all chemical deliveries.

Activity	Pollutant Materials	Current Practices	Current Practices
Leachate has a low risk of stormwater contamination.	BOD, COD, Metals, TDS, TSS, Ca, Na, K, Fe, Zn, Mg, Mn, chloride, ammonia, sulfate and ammonia.	There is a drain at the receiving station to contain spills. The hauler is responsible to review area and clean up any spills on the pavement.	Granular absorbent material, spill absorbent pads or other materials are provided for haulers to cleanup spills.
Dewatered sludge & transported from WPCF offsite has a low risk of stormwater contamination.	Sludge, BOD, COD, Metals, nitrate, TDS, TSS, ammonia, fecal pathogens	Containers are loaded and covered in Dewatering Building.	Dewatered sludge container handling is monitored during trucking into and out of Dewatering Building. spills are cleanup in Building to prevent tracking sludge onto paved surfaces and contaminating stormwater.
Sodium Bisulfite has a low risk of stormwater contamination.	Sodium, sulfate, pH, TDS	DW tank has bucket for delivery connection spills. Granular absorbent material, spill absorbent pads or other materials are used to cleanup delivery spills.	Plant personnel observe deliveries. A delivery notice and recordkeeping system is in order to track the dates and times of all chemical deliveries.
Methanol has an extremely low risk of stormwater contamination.	Methanol	Covered DW tank has fill with spill containment. Has a high rate of evaporation. Granular absorbent material, spill absorbent pads or other materials are used to cleanup delivery spills.	Plant personnel observe deliveries. A delivery notice and recordkeeping system is in order to track the dates and times of all chemical deliveries.
Polymer has an extremely low risk of stormwater contamination.	Mineral oil, polyacrylamide, pH, TDS	Polymer delivered in drums and stored on containment sumps. Granular absorbent material, spill absorbent pads or other materials are used to cleanup delivery spills.	Plant personnel observe deliveries. A delivery notice and record keeping system is in order to track the dates and times of all chemical deliveries.
Vehicle washing has an extremely low risk of stormwater contamination.	Sand, salt, detergents, oil, antifreeze, grease	Vehicles and equipment are washed in Maintenance Garage.	

### 2.3. Significant Material Inventory

Table 2 provides an inventory of any materials or activities not listed above that are currently stored indoors but might be exposed to precipitation and stormwater runoff if unloaded outside. Continue to minimize or eliminate the potential for contamination of stormwater in these areas.

**Table 2**

**Significant Material Inventory**

<b>Material</b>	<b>Activity/ Use</b>	<b>Quantity</b>	<b>Pollutant</b>	<b>Likelihood of contact with stormwater</b>	<b>Comments</b>
Polymer	Sludge Dewater - Flocculant	55 gallon drums	Oily sheen	None	Spill prevention and response plan, spill absorbents available.
Polymer	Tertiary Treatment - Flocculant	55 gallon drums	Oily sheen	None	Spill prevention and response plan, spill absorbents available.
Antifreeze	Maintenance	Varies	Oily sheen	None	Spill prevention and response plan, spill absorbents available.
Gasoline	Maintenance	Varies	Fuel, oily sheen	Low/None	Spill prevention and response plan, spill absorbents available.
Oil or Lubricants	Maintenance	Varies	Oil, oily sheen	Low/None	Spill prevention and response plan, spill absorbents available.
Hydraulic Oil	Maintenance	Varies	Oil, oily sheen	Low/None	Spill prevention and response plan, spill absorbents available.
Used Lubricants	Maintenance	30 gallon Carboy	Oil, oily sheen	None	Spill prevention and response plan, spill absorbents available.

### 2.4. Vehicle and Equipment Washing

WPCF personnel power wash vehicles and equipment inside Maintenance Garage where the wash water will be collected and discharged into an oil water separator which discharges into a drain line that flows into the yard pump station and is pumped back to the WPCF process system for treatment, eliminating the potential for contamination of stormwater runoff.

There is little or no risk of contamination arising from vehicle and equipment washing. WPCF personnel understand that washing on paved surfaces outside the Maintenance Garage will contaminate stormwater flowing across the paved surface towards either catch basin #6A or #6B. WPCF personnel understand that washing on paved surfaces outside the Garage will contaminate stormwater flowing across the paved surface towards the trench drain or either catch basin #6A or #6B..



## 2.7. Non-Stormwater Discharges

WPCF personnel must certify that all discharges to outfalls have been evaluated for the presence of non-stormwater discharges.

On March 2, 2004 Mr. Joseph M. Ciaglo WPCF Superintendent and Chief Operator conducted a visual examination of catch basins and the stormwater outfall into the Nemasket River. The visual examination confirmed that there are no: flows during non-storm events; non-stormwater materials being flushed into catch basins; and non-stormwater materials being discharged in the outfall.

However, if existing development conditions change the catch basins and outfall must be re-evaluated for the presence of non-stormwater discharges. To recertify the catch basin and outfall discharges the WPCF personnel must:

- Provide the date of any testing and/or evaluation.
- Identify potential significant sources of non-stormwater water at the WPCF.
- Description of the results of any test and/or evaluation for the presence of non-stormwater discharges.
- Description of evaluation criteria or testing method used.
- A list and locations of the outfall or drainage points that were directly observed during the testing.
- Describe what the Facility plans to do about them.

The visual examination will identify/confirm that there are or are not: flows during non-storm events; non-stormwater materials being flushed into catch basins; and non-stormwater materials being discharged in the outfall.

As the catch basins and the stormwater outfall into the Nemasket River at the Middleborough WPCF is not receiving any non-stormwater then WPCF personnel can certify that "The catch basins and the stormwater outfall into the Nemasket River near the Sludge Dewater Building has been evaluated and found to be free of non-stormwater discharges." See Appendix 2 for "Evaluation and Certification of Non-Stormwater Discharges".

## 2.8. Allowable Non-Stormwater Discharges

Certain sources of stormwater are allowable, such as firefighting activities, fire hydrant flushings, potable water line flushings, air conditioner or compressor condensate, foundation/footing drains, irrigation drainage, landscape watering, pavement washing without detergents, exterior building washing without detergents and uncontaminated groundwater.

On March 2, 2004 Mr. Joseph M. Ciaglo WPCF Superintendent and Chief Operator conducted a visual examination of catch basins and the stormwater outfall into the Nemasket

River during a non-stormwater event. The visual examination confirmed that there are no allowable non-stormwater discharges during dry events.

However, if existing development conditions change the catch basins and outfall must be re-evaluated for the presence of allowable non-stormwater discharges. To recertify the catch basin and outfall discharges the WPCF personnel must:

- Provide the date of the evaluation.
- Identify potential allowable non-stormwater discharges.
- Describe the method and criteria used.
- Show locations of outfall or drainage points that were checked during the evaluation.
- Describe the results of any evaluation for these discharges.

The visual examination will identify/confirm that there are or are not: flows during non-storm events; non-stormwater materials being flushed into catch basins; and flows being discharged.

As catch basins and the stormwater outfall into the Nemasket River Middleborough WPCF are not receiving allowable non-stormwater then WPCF personnel can certify that “The catch basins and the stormwater outfall into the Nemasket River near the Sludge Dewater Building has been evaluated and found of allowable non-stormwater discharges”. See Appendix 3 for "Evaluation and Certification of Allowable Non-Stormwater Discharges".

## **2.9. Existing Stormwater Monitoring Data**

WPCF personnel have not obtained any stormwater monitoring data. Quarterly water quality monitoring of discharges is not applicable. If existing development conditions change, as noted above and outlined in Section 4, documentation from additional evaluations of Non-Stormwater Discharges, Allowable Non-Stormwater Discharges and all Quarterly Monitoring should be placed in Appendix 1.

## **3. IMPLEMENTATION OF STORMWATER CONTROLS MEASURES**

This Section describes practices that are in place to control pollutants or that will be implemented to control pollutants that have a potential to contaminate stormwater as identified in Section 2.

The following describes existing and planned stormwater good housekeeping, preventive maintenance, Best Management Practices (BMP's), erosion & sediment controls, spill prevention & response procedures, stormwater management practices and employee training at the Middleborough WPCF.

### **3.1. Good Housekeeping**

Good housekeeping practices are the most effective first step towards minimizing exposure of materials to precipitation and preventing pollution in stormwater. The following is a list of good housekeeping practices currently followed:

- Diesel, chemical, dewater sludge, septage and leachate spills and drips or leaks common to motor vehicles are immediately cleaned up with granular absorbent materials and/or absorbent pads. (See Spill Prevention & Response Procedures in Section 3.6.).
- All equipment and vehicle maintenance fluid products and waste are kept indoors.
- All opened 55 gallon drums are placed on secondary containment pallets.
- All changing of vehicle fluids is done indoors and appropriately disposed.
- All dewater sludge is disposed within containers and covered indoors prior to transporting off site.
- All screenings are disposed within a container and covered prior to transporting off site.
- Waste materials and screenings are routinely picked up and disposed, as necessary. Leaks common to motor vehicles are immediately cleaned up with granular absorbent materials and/or absorbent pads.
- WPCF personnel keep the lid close on the dumpster to reduce or eliminate precipitation into and through the dumpster.

### **3.2. Preventive Maintenance Controls**

The Middleborough WPCF has a developed preventive maintenance program that involves inspections and maintenance of stormwater management controls and routine inspections of Facility operations to detect faulty equipment. Equipment, such as pumps, dewatering equipment, tanks, containers and drums, are visually checked regularly for signs of deterioration. The following is a list of preventive maintenance measures used:

- There is a written SPCC Plan that governs the Middleborough WPCF.
- All WPCF personnel are aware of spill prevention and response procedures.
- Spill response materials (granular absorbent and absorbent pads) are located inside the Pretreatment Building, Maintenance Garage, Tertiary Treatment Building, Sludge Dewatering Building and at the septage & leachate receiving areas.
- There is an SOP for discharging septage and leachate at the Middleborough WPCF by haulers.
- There is an SOP for discharging bulk chemicals at the Middleborough WPCF by suppliers.
- There is an SOP for discharging diesel at the Middleborough WPCF by suppliers.
- Regular inspections are conducted of diesel and chemical filling areas, septage & leachate receiving areas and area around Sludge Dewatering Building for signs of material spills, leaks or drips/leaks common to motor vehicles.
- Hydraulic and process equipment is kept in good repair to prevent leaks.
- WPCF personnel have placed "Chemical and Diesel Delivery Notices" at all chemical

and diesel transfer locations, see Appendix 4.

- WPCF personnel have developed a recordkeeping system in order to track the dates and times of all diesel, chemical, septage & leachate deliveries. See Appendix 8 for "Delivery Inspection Report".
- CBs are vacuumed out in Spring to remove winter sand and prevent sand from washing into River.

### **3.3. Best Management Practices (BMPs)**

The following is a list of existing Best Management Practices (BMPs). By implementing the BMPs, the discharge of potential pollutants in stormwater runoff is prevented or significantly reduced.

#### **a. Diesel, chemical, septage, leachate and material loading and unloading**

To prevent or significantly reduce the potential of stormwater contamination during material loading and unloading, the following BMPs have been or will be implemented:

- Material loading and unloading are done inside or undercover, where possible.
- WPCF personnel request that bulk quantity materials received in easily ripped or breakable containers be covered in plastic shrink wrap.
- Materials that are in easily ripped or breakable containers (such as bags, plastic pails) are not loaded or unloaded outside when it rains.
- WPCF personnel trained in spill response procedures are on hand during fuel or chemical transfers and any spillage is cleaned up immediately so there is no contamination of stormwater.
- WPCF personnel, when possible are present during other material loading and unloading operations.
- Suitable spill containment/cleanup materials (granular absorbent material and spill absorbent pads) are located near diesel and chemical unloading areas.
- WPCF personnel wash all vehicles and equipment in the Maintenance Garage to eliminate the potential for contamination of stormwater runoff. The cleaning and the discharge of wash water from vehicles or equipment to the onsite storm drain is not allowed.
- WPCF personnel have provided a 5 gallon bucket, granular absorbent material and spill absorbent pads located near septage & leachate unloading area for haulers to capture and cleanup spills.
- WPCF personnel monitor dewater sludge container handling during trucking into and out of Sludge Dewatering Building. WPCF personnel cleanup any spillage to prevent tracking of sludge onto paved surfaces.
- WPCF personnel monitoring screenings container handling during movement into and out of Pretreatment Building and disposal into dumpster. WPCF personnel cleanup any spillage to prevent tracking screenings or liquids onto paved surfaces.

b. Outdoor material storage

There are no areas at the Middleborough WPCF where materials are stored outside buildings, except the DW tanks (diesel, covered methanol, ferric chloride & sodium bisulfite) and covered leachate tank. There are no outdoor storage BMP's needed at this time to prevent or reduce the potential of stormwater contamination, because all materials are stored within buildings. The filling of the exterior DW tanks are addressed above.

### **3.4. Erosion & Sediment Control**

No areas of the Middleborough WPCF have the potential for soil erosion, off site discharges of sediment or sediment buildup that requires site specific controls. Paved areas are plowed during the winter with a minimal amount of sand applied, as needed for vehicles to safely navigate access drives and steeply sloped paved surfaces. Additionally, some sand is also tracked on site from off site roadways.

The Middleborough WPCF has a paved access drive to the entrance gate, paved parking areas and paved site drive to buildings, process units and all diesel/chemical fill and septage/leachate disposal locations. Areas around the Facility not paved are vegetated with grass or riprap, as necessary. Some grass and natural vegetative areas act as buffers to adjacent forested areas or wetlands. WPCF personnel maintain grass areas and seed damaged unvegetative areas, as necessary.

### **3.5. Management of Stormwater Runoff**

Stormwater runoff management practices used at the WPCF address a mix of structured or non-structural measures. Through planned topographic relief grading, paved areas pitched toward catch basins and vegetated/riprapped drainage swales sloped toward catch basins on site stormwater runoff is directed toward either grass areas for infiltration or paved areas for discharge to the Nemasket River. The Middleborough WPCF does not have any off site sources of stormwater run-on.

Most of the site's stormwater infiltrates into the ground due the vegetated nature of the site. Approximately 27% of the WPCF site is developed. The developed site is composed of: 19% process tanks, buildings with scuppers, paved walkway (with CBs draining into Primary Clarifier effluent trough) and associated grass buffers with stormwater infiltrating into the ground; and 8% paved area with 8 catch basins (and 6 drain manholes) associated with a stormwater system that captures and conveys stormwater to the Nemasket River outfall near the Sludge Dewater Building. See Figures 2 and 3 for site development and drainage.

### **3.6. Spill Prevention & Response Procedures**

The Spill Prevention & Response Procedures for the Middleborough WPCF are the same as those stated in the Tier 1 Qualified Facility SPCC Plan for the Middleborough WPCF. In

general, the following is the procedures to address spills, notify appropriate WPCF personnel and regulatory agencies.

a. Discovery of Release

The person(s) discovering a release of material from a container, tank, or operating equipment should evaluate the spill to determine what steps should be taken to immediately control and contain the spill. Certain actions taken immediately include:

*Put on appropriate PPE then review spill area.*

*Identify the location and material released.*

*Identify cause, quantity of release & any injuries.*

*Identify additional help needs.*

*Extinguish any sources of ignition.* Until the material is identified as nonflammable and noncombustible, all potential sources of ignition in the area should be removed/turned off. If an ignition source is stationary, attempt to move spilled material away from ignition source. Avoid sparks and movement creating static electricity.

*Report spill to Superintendent/Chief Operator.* WPCF personnel will contact the Superintendent/Chief Operator and other WPCF personnel once a spill has been identified, see Emergency Reporting Numbers. Report What? Where? Injuries? How much? Left building? Enter catch basin? Help needed?

*Stop leak or leak spread **only if safe to do so [If not wait for wait until trained personnel arrive on site.]*** If the spill can be stopped quickly and easily, (shut off source, contain with absorbent pads, boom and/or cover catch basins) then action should be done before the spill is reported to Superintendent/Chief Operator.

(i) *Internal Reporting:* In the event of a spill, the internal reporting numbers should be used in the order listed:

*Internal Reporting Numbers*

<b>Name</b>	<b>Title</b>	<b>Telephone</b>
Todd Goldman	Superintendent/ Chief Operator	(508) 946-2485(work) (508) 958-6497(cell)
Craig Smail	Senior Operator	(508) 946-2485(work) (508) 958-6389(cell)
Chris Peck	Public Works Director	(508) 946-2480(work) (508) 858-8572(cell)

(ii) *Outside Agency Reporting*: After the Superintendent/Chief Operator has been notified, he will report spill to outside agencies, as necessary. If the spill cannot be contained and remediated by WPCF personnel, then the Superintendent/Chief Operator will contact the two primary reporting numbers and others as necessary.

*Primary Reporting Numbers*

Middleborough Fire Department	(508) 946-2461
Middleborough Police	(508) 946-2451
Middleborough State Police	(508) 947-2222
MassDEP, Emergency Response	(888)-304-1133
National Response Center	(800) 424-8802

*Secondary Reporting Numbers*

Clean Harbors	(800) 645-8265
EPA, Region 1	(800) 424-8802

*Superintendent/Chief Operator Spill Notification and Reporting Procedures*. If there is an immediate threat to human health (e.g. a fire in progress, chemical fumes or potential chemical burns), evacuate the area and notify the Fire Department. If an uncontrollable spill has occurred and/or if the spill has migrated beyond the site boundaries, notify the Fire Department and request the assistance of Clean Harbors and MassDEP's hazardous materials response team. If none of the above issues are of a concern, then the Superintendent/Chief Operator or his assistant will contact the MassDEP as soon as possible.

b. The caller to the MassDEP will need to state:

- The name of the caller, company, telephone number and address of caller.
- The name of the facility, telephone number and address of spill location.
- The date and time of the spill.
- Cause of the spill.
- What product was spilled, the amount and the location of the specific spill.
- Whether spill is still occurring or is spill contained.
- Whether situation is: urgent; additional help is needed; or has been notified.
- What action is/has been taken by respondents to spill.
- Extent of any personal injuries to respondents.
- What natural resources are at risk (water, land, and air).

c. Containment of Release

*Attempt to stop the release at its source*. If there are no health or safety hazards and there is a reasonable certainty of the origin of the leak then trained WPCF personnel may

attempt to stop or slow down the discharge as soon as possible by closing valves, plug or patch holes (use rags, wood plugs, etc.). Trained WPCF personnel may also start transferring contents of a leaking container into a sound container, if available on site.

If special protective equipment is necessary to approach the spill area; or if assistance is required to stop the release, then a Fire Department, Clean Harbors and/or MassDEP response should be initiated. WPCF personnel should be available to assist the Fire Department and Clean Harbors and/or MassDEP's efforts.

WPCF personnel should not attempt to stop or contain release if the risk to personnel is involved. **If risk is involved, facility personnel should wait until trained personnel arrive on site.**

d. Contain Spill

Concurrent with the stoppage of the discharge, WPCF personnel will begin containing and stopping the spread of the spill. WPCF personnel may employ several methods to contain the spilled product, such as: building a dike around the spill area using pigs, soil and sorbent pads; protecting the catch basin from spills with a ring of pigs or covering catch basin with poly or sorbent pads and placing soil on to seal; or using sorbent pads in the path of flow to bind up liquid.

e. Spill Cleanup

WPCF personnel, with assistance from Clean Harbors, will begin cleanup of spilled product after discharge has been stopped and spill has been contained. Clean up involves removing the product and restoring the site as much as practicable. Removal of the product may range from picking up product with sorbents to pumping/vacuuming up spill remains. Liquid, which has soaked into the soil, may have to be excavated, decontaminated or disposed. MassDEP will determine the level of clean up required based on the spill location, the product spilled, the amount and resources potentially impacted. MassDEP also may oversee the cleanup of a significant oil spill.

It is critical that the material be contained and cleaned up as quickly as possible. The following is a list of actions to be taken:

- *Contain the material released into the environment.* Following proper safety procedures, absorbent materials and dikes should be used to contain the spill. Divert flows away from catch basin, drainage swales and other avenues that would allow chemical or oil to travel towards off site stormwater ditches, streams or wetlands.
- *Recover or cleanup of spilled material.* Recovery of significant amounts of chemical or oil contaminated materials may occur under the direction of MassDEP, Clean Harbors or other outside vendors specializing in chemical or oil recovery and subsequent waste management.

- *Surfaces that are contaminated by release shall be appropriately cleaned.* Any water used for cleanup must be minimized, contained, and properly disposed. Occasionally, porous materials (such as wood or soil) may be contaminated. Such materials will require special handling prior to disposal.
- *Decontaminate tools and equipment used in cleanup.* Any tools, materials and equipment that have been used must be thoroughly cleaned or properly disposed.
- *Arrange for proper disposal of any contaminated materials or waste materials.* Qualified regulatory personnel or waste management specialists must characterize contaminated waste material from the cleanup. Representative sampling and analysis may be necessary to make this determination. Any waste must be transported and disposed of in compliance with all applicable state and federal laws and regulations.
- *Review the SPCC Plan.* After the spill event, appropriate personnel shall review spill response efforts, notification and cleanup procedures, and equipment usage and needs to evaluate their event response and actions. Where deficiencies are found, the Plan shall be revised and amended.

### **3.7. Employee Training**

Pollution Prevention Team members will meet annually to discuss the effectiveness of and the improvements to the SWPPP. At that time the members will review potential pollutant sources, good housekeeping, preventive maintenance controls, BMPs and material management practices. The Superintendent/Chief Operator may decide to combine the SWPPP training with other training such as the SPCC Plan, Health & Safety, Confined Space, etc.

Reviewing the SPCC Plan at the same time as the SWPPP refreshes both pollution prevention plan programs. Personnel with responsibilities for compliance with the requirements of this Plan will participate in periodic training that teaches employees to perform their duties in a way to prevent the discharge of harmful material to the stormwater stream. Contractors and other transient personnel will be advised of applicable pollution prevention measures upon entering the site as appropriate.

The Superintendent/Chief Operator will provide onsite training. Each person attending training will be required to sign the attendance sheet, a copy of which is provided as Appendix 5.

#### **a. Pollution Prevention Briefings:**

Pollution prevention briefings are part of the monthly shop/safety meetings. Any material spills, near misses or material spill events are discussed in order to prevent them from recurring and the SWPPP may be modified, as deemed necessary. Personnel feedback and recommendations to stormwater pollution prevention are encouraged.

### **3.8. Waste, Screenings and Floatable Debris**

The Middleborough WPCF has a dumpster located on the north side of the Pretreatment Building in which WPCF personnel discard waste material. Septage screenings combined with degritter materials from the Pretreatment Building are disposed in this dumpster. The dumpster is disposal off site by a commercial hauler. The Middleborough WPCF does not have any floatable debris that needs to be disposed other than headworks and septage screenings.

### **3.9. Dust Generation and Vehicle Tracking of Industrial Materials**

The Middleborough WPCF has paved or vegetative surfaces which minimize the generation of dust on site. See Section 3.3 for BMPs used at the Middleborough WPCF to eliminate or significantly reduce the potential to track screenings, septage, leachate and dewater sludge off the site.

## **4. QUARTERLY VISUAL (REQUIRED) AND WATER QUALITY MONITORING LOCATION, PARAMETERS, PROCEDURES AND DOCUMENTATION**

The following describes location, parameters, procedures and documentation for conducting quarterly visual monitoring of samples (and obtaining water quality samples, if applicable) from the stormwater outfall into the Nemasket River at the WPCF.

### **4.1 Quarterly Visual Monitoring (Required) and Water Quality Sample Location**

- Outfall on the Nemasket River.

### **4.2 Quarterly Visual Sample (Required) and Water Quality Pollutant Parameters to be Analyzed, If Applicable**

A grab sample of sufficient quantity will be obtained as part of the required quarterly visual monitoring from the outfall location. This sample could also be analyzed the for the following site specific parameters, if applicable:

- Outfall - pH, specific conductance, temperature, TDS, TSS, sodium, iron, chlorides, methanol, nitrate, ammonia, phosphorus, fecal coliform and oil & grease.

### **4.3 Quarterly Visual Monitoring Procedures and Characteristics (Required)**

Once each quarter for the entire permit term, a stormwater grab sample from the outfall location must be collected and a visual assessment of the sample must be conducted. The sample is not required to be collected in accordance with 40 CFR Part 136 procedures but should be collected in such a manner that the sample is representative of the stormwater discharge. A visual assessment must be made:

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

The sample must be visually inspected for the following water quality characteristics:

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

#### **4.4 Quarterly Visual and Water Quality Monitoring Period**

Monitoring begins in the first full quarter following date of discharge authorization. Monitoring will be at least once in each of the following 3 month intervals:

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

When freezing or dry conditions exist that prevent runoff from occurring during one of the quarters, required monitoring events may have to be redistributed between seasons (quarters) when precipitation does occur, or when snowmelt results in a measurable discharge. The four required samples must still be obtained.

#### **4.5 Quarterly Visual (Required) and Water Quality Sampling Procedures**

*WPCF personnel will contact a laboratory, certified by MADEP to provide a set of certified*

*sample bottles (and preservation, as required) for the analytical parameters to be sampled for at the outfall location. The bottles will be ordered well in advance of quarterly sampling so sample bottles will be on hand to react to measurable stormwater event. The sample bottle will be complete with preprinted bottle labels identifying location and parameters, cooler, chain-of-custody, required laboratory quality assurance, quality control blanks and return UPS mailing label to send cooler back to contract laboratory within appropriate hold times.*

On the day of measurable stormwater event, WPCF personnel will take the cooler into the field to obtain the require sample. WPCF personnel will also take with them a large (2 liter or larger), clean, clear sampling container to obtain a sample from discharge outfall point, a gallon of deionized water to decontaminate sample bottle and laboratory nylon sample gloves. The quarterly visual monitoring of the outfall discharge will be completed in conjunction with the water quality sampling, if applicable.

After arriving at the outfall discharge point, WPCF personnel will place the sample container at/in the free falling discharge of the outlet and obtain a sample (2.0 liter or greater) for visual observation. If the discharge is not free falling but partially submerged then backup to the nearest drain manhole or catch basin not impacted by the River on the main sewer. Obtain a sample from the outlet end of the upstream drain manhole or catch basin.

After observing discharge sample and completing visual monitoring inspection log in Appendix 6, WPCF personnel will remove the water quality sampling bottles from the cooler, fill the sample bottles for that location, tighten lids, complete the bottle label with date, time and sampler using a "Sharpe" and place bottles back in the cooler. Once sampling is complete, WPCF personnel will dump remaining sample into outfall discharge. Before leaving the site, WPCF personnel will "decontaminate" sampling bottle by flushing interior and exterior of sample container several times with the deionized water with wash water being dumped into outfall discharge.

*Once sample is obtained, WPCF personnel will fill cooler with ice, notify contract laboratory that cooler with samples is being sent out UPS.*

#### **4.6 Quarterly Visual Monitoring Documentation**

The results of the visual assessment must be documented and maintained onsite with the SWPPP in Appendix 1. At a minimum, the documentation of the visual assessment must include:

- Sample location.
- Sample collection date and time, and visual assessment date and time for each sample.
- Personnel collecting the sample and performing visual assessment, and their signatures.
- Nature of the discharge (i.e., runoff or snowmelt).
- Results of observations of the stormwater discharge.

- Probable sources of any observed stormwater contamination.
- If applicable, why it was not possible to take samples within the first 30 minutes.

Any corrective action required as a result of a quarterly visual monitoring must be performed. See Appendix 6 for the Quarterly Visual Monitoring Inspection Log.

## **5. INSPECTIONS**

### **5.1. Stormwater Industrial Quarterly WPCF Inspections**

Quarterly WPCF personnel will visually examine the areas around the following locations for signs of contamination or remnants of spilled materials: Sludge Dewater Building (dewatered sludge); Sludge Dewatering and Tertiary Treatment Buildings (chemicals); Pretreatment Building (screenings & grit); septage receiving (septage); leachate receiving (leachate); Maintenance Building (diesel); Methanol Tank (methanol); all catch basins (above materials & sediment); and the outfall into the Nemasket River.

The quarterly visual examinations will be made during daylight hours and within the first 30 minutes of a measurable stormwater event (in conjunction with Appendix 6 Quarterly Visual Monitoring Inspection Log – WPCF Outfall @ Nemasket River). WPCF personnel will document what is observed and any contamination and/or problems. WPCF personnel will determine the source of contamination, if any, and take action to eliminate it. A Stormwater Industrial Quarterly WPCF Inspection Report is shown in Appendix 7. Documentation of inspection results, including any corrective actions taken will be certified, dated and signed and included in the SWPPP document file.

### **5.2. Routine WPCF Inspections**

WPCF personnel will conduct Routine inspections of potential pollutant areas. Appendix 8 provides routine WPCF inspection reports. Documentation of inspection results, including any corrective actions taken will be certified, dated and signed and included in the SWPPP document file.

Delivery inspections are conducted when material, diesel and/or chemical deliveries are made and records of the inspections are documented and signed. During the delivery inspection personnel will observe delivery to make sure materials are delivered without materials being spilled. The report form used for Delivery Inspections can be found in Appendix 9.

### **5.3. Annual WPCF Comprehensive Site Evaluation and Inspection**

A comprehensive compliance evaluation and inspection of the entire Middleborough WPCF site in all areas where materials or activities are exposed to stormwater and a review of this SWPPP will be conducted once every year. Annually, WPCF personnel will inspect

Middleborough WPCF facilities and site for evidence of pollution and evaluate stormwater BMPs that have been implemented. As a result of the evaluation, inspection and review the Middleborough WPCF, Facility personnel may amend or modify the SWPPP, see Section 10. The Compliance Evaluation Report will include the date of inspection, the name(s) of personnel conducting the inspection, observations, assessment of BMPs, a list of corrective actions, a schedule to implement corrective actions and a signed and dated Certification. The Certification language is as follows:

“This Compliance Evaluation Report has been prepared by qualified personnel who properly gathered and evaluated information submitted for this Report. The information in this Report, to the best of my knowledge, is accurate and complete.” Remember to sign and date the certification.

The Compliance Evaluation Report will be kept with the SWPPP. Both the Compliance Evaluation Report and any reports of follow-up corrective actions taken must be certified, dated and signed. See Appendix 11 for a copy of the form for the WPCF Annual Report.

## **6. RECORDKEEPING**

WPCF personnel will retain and maintain records described in this SWPPP (MSGP records, leaks/spill records, inspection records, maintenance records, employee training records, corrective action records, water quality analytical results, etc.) on site for 6 years from the date of the cover letter that notifies this Facility of coverage under the stormwater permit. These records will be made available to state or federal inspectors upon request.

## **7. ENDANGERED SPECIES**

Stormwater discharges, allowable non-stormwater discharges, and stormwater discharge related activities will not adversely affect any species that are federally listed as endangered or threatened (“listed”) under the Endangered Species Act (ESA) and will not result in the adverse modification or destruction of habitat that is federally-designated as “critical habitat” under the ESA.

This SWPPP is eligible under Criterion C: Federally listed threatened or endangered species or their designated critical habitat(s) (Mammals-Northern Long-eared Bat, Threatened, No Critical Habitat; Reptile-Plymouth Redbelly Turtle, Endangered, Not In Critical Habitat) are likely to occur in or near the Middleborough WPCF “action area,” and WPCF stormwater discharges and discharge-related activities are not likely to adversely affect listed threatened or endangered species or critical habitat.

The action area for the Middleborough WPCF’s stormwater discharge extends downstream from the stormwater outfall along the southern side of Nemasket River approximately 100 feet before intercepting the WPCF’s wastewater discharge outfall along the southern side of Nemasket River and discharged wastewaters mixing zone. The downstream limit of the

action area reflects the approximate distance at which the stormwater discharge and any pollutants potentially might be expected to cause potential adverse effects to listed species. That said, the distance to the WPCF's effluent discharge mixing zone is too short and the River in this area is too wide and voluminous for the stormwater discharge to cause potential adverse effects to listed species.

Appendix 10 contains documentation of Criterion C eligibility and threatened and endangered species in the area of Middleborough WPCF site: IPaC Trust Resource Report, BioMap 2 for Middleborough, MA and NHESP BioMap.

## **8. HISTORICAL PLACES**

Stormwater discharges and allowable non-stormwater discharges do not have the potential to have an effect on historic properties. No construction or installation of new stormwater control measures are planned for the Middleborough WPCF. Middleborough WPCF meets the eligibility Criterion A of the MSGP

## **9. MAINTAINING AND UPDATED THE STORMWATER POLLUTION PREVENTION PLAN**

The results of a comprehensive compliance evaluation and inspection of the site or significant change may prompt WPCF personnel to amend the SWPPP. The SWPPP will be amended if: WPCF personnel's inspection or a State or Federal inspector determines that a specific practice is not effective in controlling stormwater pollutants or preventing pollution from being discharged from the Facility (response to a corrective action); and/or any significant change in the Facility's design, construction, operation or maintenance materially affects the Facility's stormwater discharge. The amendment to the SWPPP will describe the activities that contribute to an increase in pollution and the planned corrective action control measures. The amendment will include more effective stormwater BMPs if: such technology will significantly reduce the likelihood of contaminated stormwater discharges from the Facility; and if such technology has been field proven at the time of evaluation, inspection and review.

Amendments will be made within 14 calendar days following the comprehensive evaluation and inspection or a significant change or a review of the SWPPP, which ever is earliest. The Amendment Review, page 3 must be completed and the amendment placed behind the Amendment Review page. If the amendment causes a significant change in the SWPPP then the SWPPP will need to be modified and the SWPPP will need to be re-certified. Implementation must be completed before the next anticipated storm event, if practical, but not more than 12 weeks after annual review and evaluation.