SWMP MS4 SPDES PERMIT NYR20A518

#### PUTNAM VALLEY CENTRAL SCHOOL DISTRICT 146 PEEKSKILL HOLLOW ROAD PUTNAM VALLEY, NY 10579

#### **GUIDELINE AND PROCEDURES DOCUMENT FOR STORMWATER BEST MANAGEMENT PRACTICES**

**APRIL 2018** 

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#### PUTNAM VALLEY CENTRAL SCHOOL DISTRICT 146 PEEKSKILL HOLLOW ROAD PUTNAM VALLEY, NY 10579

# **CONTROLLED COPY GUIDELINE AND PROCEDURES DOCUMENT FOR STORMWATER BEST MANAGEMENT PRACTICES ORIGINAL DOCUMENT DATE ORIGINAL DOCUMENT PREPARED BY:** Wellington J. Carvalho, P.E. CFE Consulting Services 638-2 Danbury Road LATEST Ridgefield, CT 06877 **REVISION NO.** 203-431-2683 DATE OF Date Prepared: April, 2018 REVISION **APPROVED BY** DATE ORGANIZATION

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# **SECTION 1- BACKGROUND INFORMATION**

# **1.0 BEST MANAGEMENT PRACTICES**

This Guideline and Procedures Document provides Best Management Practices (BMPs), as abstracted from the following New York State Department of Environmental Conservation's (NYSDEC) SPDES General Permit for Stormwater Discharges:

- General Permit No. GP-0-15-003, effective May 1, 2015
- Construction Activity Permit No. GP-0-15-002, effective January 29, 2015

The Stormwater Management Program (SWMP) for Non-Traditional entities, such as school districts, must be comprised of the six (6) Minimum Control Measures (MCMs) listed below:

- MCM1: Public Education and Outreach
- MCM2: Public Involvement and Participation
- MCM3: Illicit Discharge, Detection and Elimination
- MCM4: Construction Site Stormwater Runoff Control
- MCM5: Post-Construction Stormwater Runoff Control
- MCM6: Pollution Prevention/Good Housekeeping

School districts are required to develop BMPs to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters or stormwater conveyance systems.

# **1.1 DEFINITIONS**

A listing of key definitions used in this document follows:

**Stormwater** – includes rainwater, surface runoff from rain water and snowmelt as conveyed from the land during a rainfall or snow event

**MS4** – Municipal Separate Storm Sewer System located in an incorporated place or county with a population of 100,000 or more but less than 250,000, as determined by the latest U.S. Census

**Outfall** – An "Outfall" is defined as any point where a separate storm sewer system discharges to either the Waters of the United States or to another MS4. Outfalls include discharges from pipes, ditches, swales, and other points of concentrated flow. However, areas of non-concentrated (sheet) flow which drain to the Waters of the United States or to another MS4's system are not considered outfalls and should not be identified as such on the system map.

**Illicit Discharges** – Federal regulations define an illicit discharge as "any discharge to an MS4 that is not composed entirely of stormwater..." with some exceptions. These exceptions include discharges from NPDES-permitted industrial sources and discharges from fire-fighting activities. Illicit discharges are considered "illicit" because MS4s are not designated to accept, process, or discharge such non-stormwater wastes. Sources of illicit discharges include: sanitary wastewater, effluent from septic tanks, car wash wastewaters, improper oil disposal, radiator flushing disposal, laundry wastewaters, spills from roadway accidents, and improper disposal of auto and household toxics

**Best Management Practices (BMPs)** –BMPs are comprised of schedules of activities consisting of prohibition practices, general good house keeping measures, pollution prevention and educational practices, maintenance procedures and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters, or storm conveyance systems. BMPs also include treatment practices, operating procedures and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

# SECTION 2 – PUBLIC EDUCATION AND OUTREACH 2.0 THE STORMWATER COORDINATOR

The District has designated the Director of Facilities as its Stormwater Coordinator, responsible for developing and implementing the 'in-house" SWMP. The Stormwater Coordinator is the point of contact for all issues related to the SWMP.

# **2.1 STORMWATER CONSULTANT**

In addition, the District has hired an outside consultant to assist the the Stormwater Coordinator in implementing the program in accordance to the MS4 SPDES General Permit.

# 2.2 STORMWATER STEERING COMMITTEE

The District also includes a Stormwater Steering Committee typically consisting of the Superintendent of Schools or his designated representative, the Stormwater Coordinator, the Consultant, the Website Coordinator and a key Student/Staff Representative. The Stormwater Steering Committee meets annually at a kickoff meeting where the SWMP is reviewed.

# **2.3 EDUCATIONAL MATERIALS**

The education and outreach program consists of newsletters, fact sheets and guidelines and procedures documents. These documents describe:

- **MS4 Permit Requirements:** Describe the basic requirements MS4 SPDES General Permit
- **Pollutants of Concern (POCs):** Describe potential pollutants of concern
- Identification of Local Waterbodies: Identifies local waterbodies that may be impacted from stormwater runoff from the District
- Appropriate Stormwater Management Practices: Identifies steps that can be taken to reduce stormwater pollution from the POCs

# 2.4 WEBSITE POSTING OF EDUCATIONAL MATERIALS

All educational materials are posted on a specifically prepared Stormwater website that is accessible to the entire District community, including students, teachers, administrators and operational and maintenance staff. The website allows the public to report problems and to provide the community the opportunity for any changes that should be implemented to the current SWMP.

# **2.5 DISTRIBUTION OF EDUCATIONAL MATERIALS**

All educational materials are made available at locations including, but not limited to:

- The Stormwater Website
- Service Areas
- Lobbies and Libraries
- Teachers' Break Rooms
- At other locations where the information is posted for staff and students to review

## 2.6 ESTABLISHING MEASURABLE GOALS

At the annual Stormwater Steering Committee Kickoff Meeting, the District identifies measurable goals anticipated to be achieved through the public education and outreach program. These goals include:

- The Best Management Practices (BMPs) to be completed
- A schedule or date of completion
- A quantifiable target to measure the progress being made towards achieving the BMP

# 2.7 SWMP ANNUAL REPORT

Once a year, a **Draft SWMP Report** is prepared by the District consultant outlining both structural and non-structural BMPs completed by the District. The Draft Annual Report is presented on the stormwater website for District Community to provide comments. Comments, as appropriate, are addressed in the **Final Annual SWMP Report**, which is then reviewed and signed off and transmitted to NYSDEC.

# **SECTION 3 – ILLICIT DISCHARGES**

# **3.0 ILLICIT DISCHARGES**

The USEPA defines an illicit discharge as any discharge to a separate storm sewer that is not composed entirely of stormwater. Illicit discharges can be from flows associated with sewage and septage wastewater, liquid and chemical wastes. The most common illicit discharges occur from:

- Building and Foundation/Footing Drain Connections to Storm Sewers
- Sanitary Wastewater Connections to Storm Sewers
- Septic Systems Overflows
- Swimming Pool Discharges to Storm Sewers
- Vehicle and Equipment Washdowns
- Spills from Driveway and Road Maintenance
- Floor Cleaning Chemicals, Paints and Thinners Disposal
- Laundry and Kitchen Wastewater Disposal into Storm Sewers
- Improper Disposal of Sand and De-Icing Materials
- Loading and Unloading Area Washdowns
- Disposal of Household Toxics into the Storm Sewers

#### **3.1 DEVELOPMENT OF A STORM SEWER MAP**

The District has developed a storm sewer map showing the locations of the entire stormwater conveyance system and the names and locations of all outfall points, discharging stormwater collected from the site.

# **3.2 OUTFALL SCREENING AND REPORT**

All outfalls located in the District are screened annually to determine the condition of the outfall and to detect any nonstormwater discharges. Photographs are taken at each outfall and a brief summary report is presented to the District of changing conditions or observations of any illicit discharges.

### **3.3. OBSERVATIONS OF SCHOOL OPERATIONS**

During the screening of the outfalls, observations are made of all school operations to determine areas of potential illicit discharges. Areas examined typically include kitchen and building waste discharge collection areas, sand/chemical salt storage facilities, septage fields as well as lawn maintenance sheds facilities. Photographs are taken and a brief summary report is presented to the District of observation of any illicit discharge.

### 3.4 O & M STAFF TRAINING WORKSHOP

O & M Staff are provided training annually on POCs and the implementation of illicit discharge, detection and elimination program.

#### SECTION 4 – CONSTRUCTION SITE RUNOFF CONTROL AND POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

# 4.0 POLLUTION FROM CONSTRUCTION SITES

The USEPA has pointed out that sedimentation from construction sites is typically greater than sedimentation from agricultural and forest lands. Typical construction site stormwater pollutants include:

- Sediment
- Oils and Grease
- Concrete Truck Washouts
- Construction-Related Chemicals and Debris
- Phosphorus and Nitrogen from Fertilizers
- Pesticides

Construction site runoff controls must focus on the reduction of phosphorus and other pollutants that are generated from the construction site.

# 4.1 POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The Owner or Operator of a construction activity that requires post-construction stormwater management practices pursuant to Part III.C of the permit must design the practices to meet applicable sizing criteria in Part I.C2. a., b., c. or d. of this permit.

# **4.2 CONSTRUCTION ACTIVITY PERMIT**

Before commencing construction activity, the Owner or Operator of a construction project must apply for the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity GP-0-15-00 as follows:

• **Permit Application:** This permit is effective January 29, 2015 and expires on January 28, 2020

- Soil Disturbance Outside of New York City East of the Hudson Watershed: This requirement applies to soil disturbance of one (1) or more acres
- Soil Disturbance Within New York City East of the Hudson Watershed: This requirement applies to soil disturbance of more than 5,000 square feet to one (1) acre of land or greater

# 4.3 STATE HISTORIC PRESERVATION ACT (SHPA)

Construction activities can proceed only after the required documentation has been provided, showing no potential impacts on archeological and historic resources at the site, under SHPA.

# **4.4 NOTICE OF INTENT**

No construction activity shall be permitted until a Notice of Intent(NOI) has been submitted to NYSDEC.

# 4.5 STORMWATER POLLUTION PREVENTION PLAN

Prior to submitting the NOI, the Owner or Operator shall develop a Stormwater Pollution Prevention Plan (SWPPP) as outlined below:

- **SWPPP Erosion and Sediment Control Practices:** The SWPPP shall describe the erosion and sediment control practice and where required, post-construction stormwater management practices that will be used and/or constructed to reduce pollutants in stormwater discharges
- **Qualified Professional:** All SWPPPs shall be prepared by a qualified professional who is knowledgeable in the principles and practices of stormwater management and treatment
- **SWPPP Current:** The Owner or Operator must keep the SWPPP current so that it reflects erosion and sediment control practices employed at the construction site
- Contractor Notification of SWPPP Prior to Construction: Prior to the start of any construction, the Owner or Operator shall have contractors and subcontractors certify that they will comply with the terms and conditions of the SWPPP and

agree to implement any corrective actions identified by a qualified inspector during a site inspection

# 4.6 REQUIRED SWPPP CONTENTS

The SWPPP shall be comprised, and shall include of the following applicable information:

- **1. Background information:** Describe the scope of the project including the location, type and size of the project
- 2. Maps: Include a location map, showing total site area, all improvements, areas of disturbance, areas that will not be disturbed
- **3. Existing vegetation:** Show the type of vegetation that exists at the construction site, including surrounding site vegetation
- 4. Surface Waters: Include information relative to onsite and adjacent off-site surface waters
- **5. Floodplain/Floodway Boundaries:** Locate flood plains and floodway boundaries
- 6. Wetlands: Include all wetlands that may be impacted by the construction activity
- 7. Drainage Patterns: Include drainage patterns that could be affected by the construction activity
- 8. Existing and Final Contours: Show all existing and final contours
- **9. Soil Types:** Contain a description of Hydrologic Soil Groups and the locations of different soil types with boundaries

**10.Onsite Storage:** Include material waste, fill and equipment storage areas

**11. Construction Phasing Plan:** Include the contractor and subcontractor staging and sequence of all construction activities

**12. Temporary and Permanent Soil Stabilization Plans:** 

Include all temporary and permanent soil stabilization plans

**13. Maintenance Inspection Schedule:** Include a maintenance inspection schedule

**14. Construction Pollution Prevention Measures:** Describe all construction pollution prevention measures that will be used

to control litter, construction chemicals and construction debris **15. Post-Construction Stormwater Management Practices**: Include post-construction stormwater management practices, if needed by the permit as noted in Table 2, Appendix B of Construction Permit GP-0-15-002

#### 4.7 INSPECTION AND MAINTENECE REQUIREMENTS

The Owner or Operator shall ensure that all erosion and sediment control practices and all post-construction management practices, if applicable, are inspected and maintained by a trained contractor in accordance with Part IV B. and C. of the Construction Permit GP-0-15-002. The trained contractor shall ensure that erosion and sediment control practices are being maintained effectively at all times.

### **4.8 QUALIFIED INSPECTOR REQUIREMENTS**

The Owner or Operator shall have a qualified inspector (licensed Professional Engineer, Certified Professional in Erosion and Sediment Control or a Registered Landscape Architect) conduct site inspections for all construction activities identified in Tables 1 and 2 of Appendix B.

#### **4.9 INSPECTION REPORTS**

The inspection reports, furnished to the Owner or Operator, shall include:

- 1. Inspection: Date and time of inspection
- 2. Inspector: Name and title of the inspector
- **3. Weather and Soil Conditions:** A description of weather and soil conditions
- **4. Runoff:** A description of the condition of runoff at points of discharge
- **5. Surface Waterbodies**: A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries
- **6. Repairs:** Identification of erosion and sediment control practices and pollution prevention measures that need repair

or maintenance, or are not functioning as designed and need to be reinstalled or replaced

- 7. Soil Disturbance Areas: Areas that have been disturbed and areas that have been stabilized since the last inspection
- 8. Photographs: Digital photographs with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions
- **9. Notifications:** Within one (1) business day of the completion of the inspection, the qualified inspector shall notify the Owner or Operator and the appropriate contractor or subcontractor of any corrective actions that have to be taken

**10. Implementation:** The contractor or subcontractor shall implement corrective actions within one (1) business day of this notification and shall complete the corrective actions in a reasonable time frame

# 4.10 FREQUENCY OF INSPECTIONS

Inspections shall be conducted as follows:

- Weekly Inspections: The qualified inspector shall conduct a site inspection at least once every seven (7) calendar days
- Winter Inspections: The qualified inspector shall conduct a site inspection, at least once every thirty (30) calendar days, for construction sites temporarily shut down for winter

# 4.11 TERMINATION OF PERMIT COVERAGE

The Owner or Operator shall submit a Notice of Termination (NOT) in accordance with Part VII.H of this permit:

- **Construction Completion:** The NOT shall be submitted after all construction has been completed
- **Final Stabilization:** The NOT shall be submitted after all areas of disturbance have achieved final stabilization
- Erosion and Sediment Control Measures: The NOT shall be submitted after all temporary, structural erosion and sediment control measures have been removed

- **Post-Construction Stormwater Management Practices:** The NOT shall be submitted after all Post-Construction Stormwater Management Practices have been constructed in conformance with the SWPPP and are operational
- Final Inspection: The Owner or Operator shall have the qualified inspector perform a final site inspection prior to submitting the NOT and certify that all requirements of the permit have been achieved
- **Right-of-Ways:** The Owner or Operator, prior to submitting the NOT, shall ensure that any right-of-ways needed to maintain post-stormwater management practices have been deeded to the Owner or Operator, where the practice is located
- **Operation and Maintenance:** The Owner or Operator, prior to submitting the NOT, shall have procedures in place that ensure operations and maintenance of practices can be carried out as stipulated in the operations and maintenance plan

### SECTION 5 – POLLUTION PREVENTION/GOOD HOUSEKEEPING

## **5.0 OPERATION AND MAINTENANCE DEPARTMENT**

In order to control the quality of stormwater involved with Pollution Prevention/Good Housekeeping, the District employs an Operations and Maintenance Department. The Operation and Maintenance Department falls directly under the responsibility of the Director of Facilities, who is responsible for all impacted activities which can contribute pollution to the District's stormwater drain system.

### **5.1 BMPs FOR POLLUTANT GENERATING ACTIVITIES**

BMPs that are implemented to reduce the impact of the District's pollutant generating activities on the storm drain system.

#### **1 LAWN CARE AND MAINTENANCE ACTIVITIES**

Lawn Care and maintenance activities are performed during the spring, summer and fall seasons, and typically consist of:

- Lawn Mowing and Trimming: The District is responsible for lawn mowing and trimming athletic fields and around buildings from April through October. Lawns are mowed once per week, on an as-needed basis
- Lawn Repairs: Lawn repairs consist of grading, seeding, and mulching lawn areas that have been impaired
- Application of Fertilizers and Pesticides: The District does not use any fertilizers or pesticides an any athletic fields or grassed areas. The District may employ a Third Party Contracted Entity, to apply pesticides and insecticides, on an as-needed basis.
- Leaf Collection: Most of the leaves are blown into the woods located at the edge of many of the maintained areas

# 2 PAVED AND ROADSIDE MAINTENACE

Impervious areas, include sidewalks, parking lots and paved roads.

- **Roadside Maintenance:** Roadside maintenance shall include tree removals, removal of overhanging branches, dead shrubs and trees, as well as roadside mowing, as needed
- **Road Paving:** The District conducts pothole patching based on spot-checking and complaints. Road paving, if required, is conducted by a Third Party Contracted Entity
- Sweeping: The District includes sweeping of sidewalks, parking lots and paved roads, on an as-needed basis. If needed, sweeping is performed by a Third Party Contracted Entity

# **3. WINTER ACTIVITIES**

During the winter months, the District is responsible for removing snow from roadways, parking lots and sidewalks. Snow plowing activities are performed by a Third Party Contracted Entity.

- **Snow Plowing:** Snow plowed from roadways, parking lots and sidewalks is pushed to the sides of the paved areas. In some instances, where a pile becomes an obstruction, the snow is removed to areas not utilized by the District
- Winter Salting: The District utilizes salt on steps and walkways leading to building. Salt is also used to melt ice on roadways and parking lots
- Salt Shed Storage Facilities: The District does not have any onsite salt storage facilities, as a Third Party Contracted Entity provides salt and de-icing chemicals for snow removal

# 4. STORM SEWER DRAIN INSPECTION AND CLEANING

The District conducts inspections and cleaning of the storm drain system, on an as needed basis, at least once during the wet season and once during the dry season, by Third Party Contracted Entity. The storm drain system consists of catch basins, curbside drain inlets for roads and parking lots, stormwater retention/detention areas and stormwater outfalls.

- Catch Basin Inspection and Cleaning: The District inspects and cleans catch basins and roadside curb inlets, on an asneeded basis, typically in the spring and in the fall.
- Retrofit Catch Basins and Curbside Inlets: Catch basins and curbside Inlets that are damaged as a result of plowing during snow removal activities, are repaired and/or replaced, on an as needed basis
- **Stormwater Retention/Detention Areas:** The District does not have any onsite Stormwater Retention/Detention ponds
- **Stormwater Outfalls:** The District has developed a storm sewer map showing the locations of the entire stormwater conveyance system and the names and locations of all outfall points, discharging stormwater collected from the site. All outfalls located in the District are screened annually to determine the condition of the outfall and to detect any non-stormwater discharges. Photographs are taken at each outfall and a brief summary report is presented to the District of changing conditions or observations of any illicit discharges

#### **5. TRASH DISPOSAL AREAS**

The District maintains a limited number of designated areas in the school yard for unloading kitchen waste and for receiving building materials.

- **Kitchen Trash Disposal Areas:** The District requires trash removal contractors to provide covered trash receptacles. Trash Removal Services are provided by a Third Party Contracted Entity
- **Building Materials Unloading Docks:** All outside unloading dock areas are swept by the District, on an asneeded basis

# 6. EQUIPMENT STORAGE

On-site equipment storage is handled by the District as follows:

- Snow Removal Equipment: The District does not store trucks, backhoes, front end loaders, snow removal equipment on site as, these services are provided by a Third Party Contracted Entity
- Lawn Mowing Equipment: The District stores lawn mowers are on site in their maintenance buildings
- Chemicals and Hazardous Materials: The District may also provide on-site containers for the storage of chemicals and hazardous materials, on an as-needed basis. Disposal of chemicals and hazardous materials, is provided by a Third Party Contracted Entity, on an as-needed basis.

# **5.2 OBSERVATIONS OF SCHOOL OPERATIONS**

During the screening of the outfalls, observations are made of all school operations to determine areas of potential illicit discharges. Areas examined typically include kitchen and building waste discharge collection areas, sand/chemical salt storage facilities, septage fields as well as lawn maintenance sheds facilities. Photographs are taken and a brief summary report is presented to the District of observation of any illicit discharge.

# 5.3 O & M STAFF TRAINING WORKSHOP

O & M Staff are provided training annually on POCs and the implementation of illicit discharge, detection and elimination.

# SECTION 6 – APPLICABILITY OF THE GUIDELINE AND PROCEDURES DOCUMENT

### 6.0 APPLICABILITY BEST MANAGEMENT PRACTICES

This Guideline and Procedures Document has been prepared to ensure strict adherence to NYSDEC regulations covering the:

#### • Putnam Valley High School/Middle School, 146 Peekskill Hollow Road, Putnam Valley, NY 10579

#### 6.1 **BEST MANAGEMENT PRACTICES (BMPs)**

This Guideline and Procedures Document provides (BMPs), adopted by the District, relative to the following New York State Department of Environmental Conservation's (NYSDEC) SPDES General Permit for Stormwater Discharges:

- General Permit No. GP-0-15-003, effective May 1, 2015
- Construction Activity Permit No. GP-0-15-002, effective January 29, 2015

The document has been prepared to specifically instruct the District's Operation and Maintenance Staff, as well as Third Party Contracted Entities employed by the District, to reduce stormwater pollution occurring from the District's school operations.

# 6.2 COMPLIANCE WITH NYSDEC REGULATIONS

This document is intended to be a guide to aid the District in complying with the United States Environmental Protection Agency (USEPA) Phase II Stormwater Regulations. The document does not constitute rule making nor is it a substitute for reading the regulations and understanding all of its requirements as it applies to your facility. Additional information on Phase II rules, including the latest copy of the revised permit regulations, may be obtained from NYSDEC's website:

http://www.dec.ny.gov/permits/6045.html