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# **Attachment E Stormwater Pollution Control Plan**



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## Introduction

This Stormwater Pollution Control Plan (SWPCP) has been prepared in accordance with Section 22a-430 b of the Connecticut General Statutes and the General Permit for Discharge of Stormwater and Dewatering Wastewaters from Construction Activities, reissued on August 21, 2013. This SWPCP addresses pre- and post-construction issues associated with stormwater management during construction. All actions required by this plan shall be followed by the permittee per the conditions of the General Permit.

This SWPCP contains excerpts taken from the Connecticut General Statutes and the General Permit for Discharge of Stormwater and Dewatering Wastewaters from Construction Activities, reissued on August 21, 2013.

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## Site Description

The Town of East Hartford is proposing rehabilitation or resurfacing of various roadways within the Town totaling approximately 4.4 miles (see Figure 1). The locations of the work are as follows:

- Anita Drive – Forest Lane to Dead End
- Blueberry Lane – Forest Street to Cul De Sac
- Burnbrook Road – Oak Street to Oak Street
- Cavan Road – Oak Street to Oak Street
- Dean Drive – DePietro Drive to Forest Street
- Depietro Drive – Patricia Drive to Forest Street
- Dorothy Road – Forest Street to Lydall Road
- Eleanor Road – Dorothy Road to Lydall Road
- Forbes Street – Forest Street to Silver Lane
- Forest Lane – Forest Street to Cul De Sac
- Hillside Street – Roberts Street to Burnside Avenue
- Lydall Road – Forest Street to Forest Street
- Northfield Drive – Anita Drive to Anita Drive
- Patricia Drive – Forest Street to DePietro Drive
- Shannon Road – Silver Lane to Oak Street
- Timrod Trail – Forest Street to Anita Drive

Under existing conditions, roadway runoff are collected in catch basins, which are connected to the Town's closed pipe system that outfalls at several locations within the Town's right of way.

The improvements include milling of bituminous overlays, pavement reclamation, repaving the roadway surface with hot mix asphalt overlays, partial-depth and full-depth pavement repairs, replacing and/or resetting curbing, replacing driveway aprons and sidewalk ramps, rebuilding catch basins, replacing catch basin tops, frames, and grates, installing new drainage structures and associated drain pipes, cleaning the existing drainage system, resetting the tops of the existing utilities within the street (sanitary sewer manholes, water manholes, gas gates, water gates, etc.), installing pavement markings, signs, and other incidental work.



Whenever possible existing drainage patterns were maintained in the design. Driveways and snow shelves were designed to ensure positive drainage towards the roadway.

### **Total Area to be Disturbed During Construction**

The total area of site to be disturbed including, roadway base, snow shelves, driveways and sidewalks is approximately 18.4 acres.

### **Estimated Runoff Coefficients**

Runoff coefficients for the pre- and post-development conditions were determined using NRCS Technical Release 55 (TR-55) methodology as provided in HydroCAD, and result in the following:

Existing Estimated Average Weighted Curve Number = 93

Proposed Estimated Average Weighted Curve Number = 93

### **Receiving Waters**

Stormwater runoff from the various roadways ultimately discharges into Pewterpot Brook, Hockanum River and Connecticut River.

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## **Construction Sequencing**

All construction activities are expected to begin in the spring of 2015 and be completed in fall 2015. The Contractor will be allowed to construct two sections of roadway simultaneously. The Contractor shall not allow a milled roadway to remain in place for greater than fifteen (15) calendar days. Roadways with all HMA removed shall not remain in place for greater than twenty (20) calendar days before installing the first course of HMA. The 20-day period starts once the bituminous concrete roadway surface is disturbed or reclaimed. The general construction sequencing is as follows:

### **Mill and Overlay Roadway – Hillside Street and section of Forbes Street**

1. Contractor installs sediment control system at catch basins in accordance with the erosion and sediment control details shown on the plans.
2. Contractor reconstructs sidewalk ramps.
3. Contractor mills existing pavement and removes existing bituminous concrete curbing.
4. Contractor rebuilds catch basins, adjusts utility structures and performs the necessary cracksealing, partial and full depth patching.
5. Contractor overlays roadway with hot mix asphalt leveling/shim course and intermediate course.
6. Contractor installs bituminous concrete curbing on intermediate course.
7. Contractor overlays roadway with bituminous concrete surface course.
8. Contractor reconstructs driveways.



9. Contractor places topsoil at snow shelves and establishes turf.
10. Contractor removes sediment control system at catch basins and cleans catch basins and pipes.

### **Reclaimed/Reconstructed Roadways – Section of Forbes Street and all other roadways**

1. Contractor installs sediment control system at catch basins in accordance with the erosion and sediment control details shown on the plans.
2. Contractor reconstructs sidewalks and sidewalk ramps.
3. Contractor replaces/rebuilds drainage structures
4. Contract reclaims existing pavement, handle, excavate, supplement and grade reclaimed material as required.
5. Contractor overlays roadway with bituminous concrete intermediate course.
6. Contractor installs bituminous concrete curbing on intermediate course.
7. Contractor overlays roadway with bituminous concrete surface course.
8. Contractor adjusts utility structures as required while placing bituminous courses.
9. Contractor reconstructs driveways.
10. Contractor places topsoil at snow shelves and establishes turf.
11. Contractor removes sediment control system at catch basins and cleans catch basins and pipes.

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## **Erosion and Sedimentation Controls**

The following recommended erosion and sedimentation controls shall be employed, as necessary, during the earthwork and construction phases of the project. The following controls are provided as recommendations for the Contractor and do not constitute or replace the final Stormwater Pollution Prevention Plan (should one be required) that must be implemented by the Contractor and owner in compliance with EPA NPDES regulations.

### **Temporary Stabilization Practices**

#### ***Silt Fencing***

Silt fence will be placed to trap sediment transported by runoff before it reaches the drainage system or leaves the construction site. The silt fences will be replaced as determined by periodic field inspections.

#### ***Catch Basin/Inlet Protection***

Newly constructed and existing catch basins will be protected with silt sacks throughout the duration of construction.

#### ***Dust Control***

The Contractor shall furnish and apply water, or a wetting agent approved by the Engineer in solution with water to control dust on all roadways where aggregate is exposed.



## **Permanent Stabilization Practices**

Permanent stabilization shall consist of permanent turf establishment. The Contractor shall be bound by the Standard Specifications and the Contract Special Provisions for Item No. 950005A for the materials and construction methods required for these permanent stabilization practices.

## **Maintenance**

The contractor or subcontractor will be responsible for implementing each control specified in the Contract Documents. In accordance with EPA regulations, the contractor must sign a copy of a certification to verify that a plan has been prepared and that permit regulations are understood.

The on-site contractor will inspect all sediment and erosion control structures periodically and after each rainfall event. Records of the inspections will be prepared and maintained on-site by the contractor.

Damaged or deteriorated items will be repaired immediately after identification.

Sediment that is collected in structures shall be disposed of properly.

Erosion control structures shall remain in place until all disturbed earth has been securely stabilized. After removal of structures, disturbed areas shall be regarded and stabilized as necessary.

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## **Inspection**

Qualified personnel (provided by the permittee) shall inspect disturbed areas of the construction activity that have not been finally stabilized, erosion and sediment control measures, all structural controls, soil stockpile areas, washout areas and locations where vehicles enter or exit the site. These areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system and impacts to the receiving waters. Locations where vehicles enter or exit the site shall also be inspected for evidence of off-site sediment tracking. For storms that end on a weekend, holiday or other time after which normal working hours will not commence within 24 hours, an inspection is required within 24 hours only for storms that equal or exceed 0.5 inches. For storms of less than 0.5 inches, an inspection shall occur immediately upon the start of the subsequent normal working hours. Where sites have been temporarily or finally stabilized, such inspection shall be conducted at least once every month for three months

## **Reports**

A report shall be prepared and retained as part of the Plan. This report shall summarize: the scope of the inspection; name(s) and qualifications of personnel making the inspection; the date(s) of the inspection; weather conditions including precipitation information; major observations relating to erosion and sediment controls and the implementation of the Plan; a description of the stormwater discharge(s) from the site; and any water quality monitoring performed during the inspection. The report shall be signed by the permittee or his/her authorized representative in accordance with the "Certification of Documents" section (subsection 5(i)) of this general permit.



The report shall include a statement that, in the judgment of the qualified inspector(s) conducting the site inspection, the site is either in compliance or out of compliance with the terms and conditions of the Plan and permit. If the site inspection indicates that the site is out of compliance, the inspection report shall include a summary of the remedial actions required to bring the site back into compliance. Non-engineered corrective actions (as identified in the Guidelines) shall be implemented on site within 24 hours and incorporated into a revised Plan within three (3) calendar days of the date of inspection unless another schedule is specified in the Guidelines. Engineered corrective actions (as identified in the Guidelines) shall be implemented on site within seven (7) days and incorporated into a revised Plan within ten (10) days of the date of inspection, unless another schedule is specified in the Guidelines or is approved by the commissioner. During the period in which any corrective actions are being developed and have not yet been fully implemented, interim measures shall be implemented to minimize the potential for the discharge of pollutants from the site.

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## **Turbidity Monitoring**

### **Monitoring Frequency**

Sampling shall be conducted at least once every month, when there is a discharge of stormwater from the site while construction activity is ongoing, until final stabilization of the drainage area associated with each outfall is achieved.

Samples are only required to be taken during normal working hours. If sampling is discontinued due to the end of normal working hours, it shall be resumed the following morning or the morning of the next working day following a weekend or holiday, as long as the discharge continues.

Sampling may be temporarily suspended any time conditions exist that may reasonably pose a threat to the safety of the person taking the sample. Such conditions may include high winds, lightning, impinging wave or tidal activity, intense rainfall or other hazardous condition. Once the unsafe condition is no longer present, sampling shall resume.

If there is no stormwater discharge during a month, sampling is not required.

### **Sample Collection**

All samples shall be collected from discharges resulting from a storm event that occurs at least 24 hours after any previous storm event generating a stormwater discharge. Any sample containing snow or ice melt must be identified on the Stormwater Monitoring Report form. Sampling of snow or ice melt in the absence of a storm event is not a valid sample.

Samples shall be grab samples taken at least three separate times during a storm event and shall be representative of the flow and characteristics of the discharge(s). Samples may be taken manually or by an in-situ turbidity probe or other automatic sampling device equipped to take individual turbidity readings (i.e. not composite). The first sample shall be taken within the first hour of stormwater discharge from the site. In cases where samples are collected manually and the discharge begins outside of normal working hours, the first sample shall be taken at the start of normal working hours.



## **Sample Locations**

For this project up to ten (10) substantially identical outfalls may be identified for one representative discharge. Substantially identical outfalls shall be considered as those that discharge substantially identical runoff, based on similarities of the exposed soils, slope and type of stormwater controls used. The report shall state that the results also apply to the substantially identical discharge point(s). If the project is planned to continue for more than one year, the permittee shall rotate twice per year the location where samples are taken so that a different discharge point is sampled every six months. The Plan must identify each outfall authorized by this permit and describe the rationale for any substantially identical outfall determinations. The location of outfalls that are included in this project can be found on plan sheets DCP-01 through DCP-10.

All sampling point(s) shall be identified in the Plan and be clearly marked in the field with a flag, stake, or other visible marker.

## **Turbidity Values**

The stormwater discharge turbidity value for each sampling point shall be determined by taking the average of the turbidity values of all samples taken at that sampling point during a given storm.

## **Stormwater Monitoring Reports**

Within thirty (30) days following the end of each month, permittees shall enter the stormwater sampling result(s) on the Stormwater Monitoring Report (SMR) form (available at [www.ct.gov/deep/stormwater](http://www.ct.gov/deep/stormwater)) and submit it in accordance with the NetDMR outlined in the Permit or, if the permittee has opted out of NetDMR, to the following address:

**Bureau of Materials Management and Compliance Assurance  
Water Permitting and Enforcement Division (Attn: DMR Processing)  
Connecticut Department of Energy and Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127**

If there was no discharge during any given monitoring period, the permittee shall submit the form as required with the words "no discharge" entered in place of the monitoring results.

If the permittee monitors any discharge more frequently than required by this general permit, the results of this monitoring shall be included in additional SMRs for the month in which the samples were collected.

If sampling protocols are modified due to the limitations of normal working hours or unsafe conditions, a description of and reason for the modifications shall be included with the SMR.

If the permittee samples a discharge that is representative of two or more substantially identical discharge points, the permittee shall include the names or locations of the other discharge points.



## **Submittal of NETDMR Opt-Out Requests**

All opt-out requests and requests for the NetDMR subscriber form should be sent to the following address or by email at [deep.netdmr@ct.gov](mailto:deep.netdmr@ct.gov):

**Attn: NetDMR Coordinator**  
**Connecticut Department of Energy and Environmental Protection**  
**79 Elm Street**  
**Hartford, CT 06106-5127**

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## **Post Construction Stormwater Management**

### **Permanent Structural Practices**

Limited improvements of the existing drainage system are proposed for this project. The amount of impervious area will not be increased. The drainage patterns post construction will be same as pre construction. Proposed catch basins should be constructed with two-foot deep sumps to prevent the discharge of sediments and contaminants into the drainage system.

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## **Other Controls**

Additional controls and procedures to be utilized during construction include the following:

### **Surplus Material Disposal**

Surplus materials obtained from any type of reclamation, excavation or milling operation, and not needed for further use as determined by the Engineer, shall become the property of the Contractor and shall be removed from the site during the construction period and disposed of legally. The removal and disposal of surplus material shall adhere to the regulations and requirements of local authorities governing the disposal of such materials.

### **Off-Site Vehicle Tracking of Sediments and Minimization of Dust**

Off-site vehicle tracking of sediments and the generation of dust shall be minimized.

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## **Termination Requirements**

### **Notice of Termination**

At the completion of a construction project registered of this general permit, a Notice of Termination must be filed with the commissioner. A project shall be considered complete after all post-construction measures are installed, cleaned and functioning and the site has been stabilized for at least three months following the cessation of construction activities. A site is considered stabilized



when there is no active erosion or sedimentation present and no disturbed areas remain exposed for all phases.

## Contractors

Each Contractor and Subcontractor who will perform actions on the site that may reasonably be expected to cause or have the potential to cause pollution of the waters of the State shall sign the certification statement below:

### Certification Statement

*"I certify under penalty of the law that I have read and understand the terms and conditions of the General Permit for the discharge of Stormwater and Dewatering Wastewaters from Construction Activities. I understand that, as a Contractor or Subcontractor at the site, I am authorized by this General Permit, and must comply with the terms and conditions of this General Permit, including, but not limited to, the requirements of the Stormwater Pollution Control Plan prepared for the site."*

\_\_\_\_\_  
Signature Date

### List of Project Contractors

1. Contractor Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
 Contractor Specialty to be used on this Project: \_\_\_\_\_  
 Contractor's On-site Representative: \_\_\_\_\_
  
2. Contractor Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
 Contractor Specialty to be used on this Project: \_\_\_\_\_  
 Contractor's On-site Representative: \_\_\_\_\_
  
3. Contractor Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
 Contractor Specialty to be used on this Project: \_\_\_\_\_  
 Contractor's On-site Representative: \_\_\_\_\_
  
4. Contractor Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
 Contractor Specialty to be used on this Project: \_\_\_\_\_  
 Contractor's On-site Representative: \_\_\_\_\_



5. Contractor Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
Contractor Specialty to be used on this Project: \_\_\_\_\_  
Contractor's On-site Representative: \_\_\_\_\_
  
6. Contractor Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
Contractor Specialty to be used on this Project: \_\_\_\_\_  
Contractor's On-site Representative: \_\_\_\_\_
  
7. Contractor Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
Contractor Specialty to be used on this Project: \_\_\_\_\_  
Contractor's On-site Representative: \_\_\_\_\_
  
8. Contractor Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
Contractor Specialty to be used on this Project: \_\_\_\_\_  
Contractor's On-site Representative: \_\_\_\_\_
  
9. Contractor Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
Contractor Specialty to be used on this Project: \_\_\_\_\_  
Contractor's On-site Representative: \_\_\_\_\_
  
10. Contractor Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
Contractor Specialty to be used on this Project: \_\_\_\_\_  
Contractor's On-site Representative: \_\_\_\_\_

## Reporting and Record Keeping Requirements

The permittee shall retain copies of the SWPCP and all reports required by this General Permit, and records of all data used to complete the registration to be authorized by this General Permit, for a period of at least five (5) years from the date that construction at the site is completed, unless the Commissioner specifies another time period in writing.



The permittee shall retain an updated copy of the SWPCP required by this General Permit at the construction site from the date construction is initiated at the site until the date construction at the site is completed.



# Stormwater Pollution Control Plan Permit Drawings

<b><u>DRAWING TITLE</u></b>	<b><u>NO. OF SHEETS</u></b>
<b>LEGEND, ABBREVIATIONS &amp; GENERAL NOTES</b>	<b>1</b>
<b>MISCELLANEOUS DETAILS</b>	<b>1</b>
<b>TYPICAL SECTIONS</b>	<b>7</b>
<b>CONSTRUCTION PLAN</b>	<b>32</b>
<b>INTERSECTION GRADING PLANS</b>	<b>12</b>
<b>DRAINAGE SYSTEM CLEANING PLAN</b>	<b>10</b>