
Stormwater Management Plan

Village of
Castleton-on-Hudson

Prepared by:
Clark Engineering & Surveying, P.C.
June 18, 2009

Table of Contents

<i>Table of Contents</i>	ii
1. Introduction	1
2. Public Education and Outreach.....	2
Geographic Areas and Waterbodies of Concern	2
Pollutants of Concern.....	2
Target Audiences	3
Goals, Activities and Assessment for Public Education and Outreach	3
3. Public Involvement and Participation	4
Open Meeting Law	4
Local Stormwater Contact	4
Annual Report Presentation	4
Goals, Activities and Assessment for Public Involvement and Outreach	4
4. Illicit Discharge Detection and Elimination (IDDE).....	5
Goals, Activities and Assessment for IDDE	5
5. Construction Stormwater Runoff Control.....	6
Goals, Activities and Assessment for Construction Activities.....	6
6. Post Construction Stormwater Management.....	7
Goals, Activities and Assessment for Construction Activities.....	7
7. Pollution Prevention and Good Housekeeping for Municipal Operations	7
Goals, Activities and Pollution Prevention and Good Housekeeping	8

8.	Attachments.....	
1.	Notice of Intent	
2.	Village Map of Storm Sewer Outfalls	
3.	Annual Reports.....	
4.	Local Law: Illicit Discharge, Detection, & Elimination Program	
5.	Village Storm Sewer Map.....	
6.	Village Stormwater Organizational Chart	
7.	Village Officials and Staff Stormwater Training	
8.	Report Form: IDDE	
9.	Local Law: Stormwater Management and Erosion and Control	
10.	Zoning Law Article XI, Critical Environmental Overlay Area, Steep Slopes.....	
11.	Zoning Map	
12.	Report Form: Construction Activities.....	
13.	Report Form: Post Construction Inspections and Maintenance.....	
14.	Report Form: Pollution Prevention and Good Housekeeping Guide.....	
15.	Report Form: Municipal Pollution Prevention and Good Housekeeping	

Stormwater Management Program

1. Introduction

The US Environmental Protection Agency (EPA) established rules under the Federal Clean Water Act to protect rivers and streams under the National Pollutant Discharge Elimination System Stormwater Program. Under “Phase II” of this program, the EPA established rules to reduce pollutants discharged from Municipal Separate Storm Sewer Systems (MS4s).

The New York State Department of Environmental Conservation (NYS DEC) regulates certain areas of the State, including the Village of Castleton-on-Hudson (Castleton) as an MS4. Permits are issued for regulated communities under the New York State *SPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s)*, GP-08-002.

To obtain permit coverage, Castleton submitted a Notice of Intent to NYSDEC which is included as Attachment 1.

The Storm Water Management Plan (SWMP) is required to address the following six Minimum Control Measures:

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post-Construction Runoff Control
6. Pollution Prevention and Good Housekeeping

The plan for meeting the requirements for each of these minimum control measures will be detailed in Sections 2 through 7.

2. Public Education and Outreach

Geographic Areas and Waterbodies of Concern

The Village of Castleton is on the east shore of the Hudson River, approximately seven miles south of Albany. A portion of the northern boundary of the Village is defined by the Moordener Kill, a tributary of the Hudson. The Vlockie Kill, also tributary to the Hudson, is located just south of the Village line before entering the southwest corner of the Village as it joins the Hudson River. Neither the Vlockie Kill nor Moordener Kill receives any discharges from the Village's storm sewer system.

To the west of the Village is a regulated MS4 area that lies within the Town of Schodack. The New York State Department of Transportation and Rensselaer County Highway are regulated MS4s. Routes 9J (Main Street) and NYS 150 (Scott Avenue) fall under NYSDOT's jurisdiction. Seaman Avenue is a Village Street but is under County Jurisdiction (County Route 6) east of the Village.

The Village Storm sewer system contains five outfalls, all to the Hudson River. Four additional outfalls to the Hudson River from NYS Route 9J occur within Village Limits. A map of the Village of Castleton and the identified storm sewer outfalls is included as Attachment 2.

Rainfall events wash pollutants from the urban landscape into the storm sewers, which then discharge these pollutants into the Hudson River. The cumulative impact from communities within the Hudson River Watershed results in impairments to the water quality of the river.

Pollutants of Concern

Pollutants of concern that may be found in stormwater include:

- Silt and Sediments
- Pathogens (bacteria, viruses)
- Nutrients such as phosphorus and nitrogen
- Toxic chemicals including pesticides, herbicides, petroleum products

Silt and sediments are often found in stormwater runoff from construction sites where soils are not protected by turf. Particulates also result from stormwater runoff from streets, parking lots, driveways, roofs and other impervious areas. Some of these sediments may contain lead, mercury, PCBs or other pollutants of concern. The silt and sediments can be harmful to fish and aquatic habitat.

The discharge of animal or human waste can result in pathogen levels that make the waters unsafe for swimming. These wastes also add to the nutrient loadings. The entire Village of Castleton is served by

public sewers and no onsite sewage systems are permitted. With the exception of pets, there are no significant sources of animal waste within the Village.

Fertilizer from agricultural areas and lawns can contribute to excessive nutrient loadings; particularly nitrogen and phosphorus. These nutrients lead to overgrowth of algae, deplete oxygen levels and be harmful to aquatic life. There are no agricultural activities within the Village. Lawns are typically small but may contribute pollutants if over fertilized or misapplied.

Other potential pollutants include pesticides, herbicides, petroleum products, chemicals and metals. The lack of large lawns and farms in Castleton would unlikely result in significant herbicides and pesticides unless these materials are overused or misapplied.

Target Audiences

The target audience for this plan includes Village officials and employees, residences, businesses and industries within the Village of Castleton.

Goals, Activities and Assessment for Public Education and Outreach

The goal of this section is to improve public awareness and education.

Activities planned are:

1. Create website.
2. Create information area at the Village Library.
3. Hold public hearing on the Annual Plan.
4. Compile a list of businesses and Institutions in Village and send targeted stormwater factsheets and information to these stakeholders.
5. Continue to work with Rensselaer County Planning Department with joint public educational and outreach programs including distribution of printed educational materials.

Measurement is the number of visits to the web site, number of informational packages distributed and number of persons, businesses and/or organizations contacted.

3. Public Involvement and Participation

Open Meeting Law

The Village of Castleton complies with the State Open meetings law and Local public notice requirements.

Local Stormwater Contact

The local Stormwater Contact and Stormwater Management Coordinator for the Village of Castleton is:

Glen Hebert, Building Inspector

Annual Report Presentation

The 2009 Draft Annual Report is available on line at the Village's web page, <http://www.castleton-on-hudson-stormwater.com>, and at the Village Hall for review and comment. Annual reports for previous years are included as Attachment 3.

The plan will be presented and comments received at the regular Village Board Meeting on July 13, 2009.

A public notice of the annual report presentation will be published in the official Village newspaper, The Castletonian, and posted at Village Hall.

Comments received at the public meeting will be compiled and posted on the stormwater web site, <http://www.castleton-on-hudson-stormwater.com>.

Goals, Activities and Assessment for Public Involvement and Outreach

The goal of this section is to encourage more public participation.

The activities planned are:

1. Identify Village leaders and organizations that might be enlisted to help in stormwater management planning and implementation.
2. Continue to work with Rensselaer County Planning Department for Public Involvement and Outreach.

3. Hold Village Clean up days for bulk wastes, construction and demolition materials and electronics.

The measurement will be persons and organizations identified and signed up to participate and the number of clean up days.

4. Illicit Discharge Detection and Elimination (IDDE)

A local IDDE law meeting the minimum requirements of the State model law has been adopted and is on file in Village Hall, posted on the stormwater website and included here, as Attachment 4.

Stormwater outfalls within the Village have been mapped and field verified. The map is included as Attachment 2. This map will be updated as any new outfalls are constructed.

The Village has an older map showing the location of storm sewers within the Village, including catch basin locations. The storm sewer map is included as Attachment 5.

The local stormwater management contact/coordinator also serves as the Building Inspector. The Building Inspector, Zoning Enforcement Officer and the Superintendent of Public Works are in and around the Village on a constant basis and are in a position to visually identify any apparent illicit discharges or non-stormwater discharges such as illegal dumping.

An organizational chart for the Village relating to Stormwater Activities is included as Attachment 6. Village officials and employee training is ongoing and listed in Attachment 7.

A reporting form has been developed to report and follow up on any illicit discharges and is included in Attachment 8.

Goals, Activities and Assessment for IDDE

The goal of this section is to improve inspections of IDDE.

The activity planned is to develop a schedule for regular inspections of outfalls and spot inspections for illicit discharges.

The measurement will be the number of inspections performed per year.

5. Construction Stormwater Runoff Control

The Village of Castleton is near full build out. The number of vacant lots is limited and most are small in size. Therefore construction site runoff is not as significant an issue as in many other communities.

A local law for Stormwater Management and Erosion and Sediment Control, meeting the minimum requirements of the State model law, has been adopted and is on file in Village Hall, posted on the stormwater website and included as Attachment 9.

In addition, the Village Zoning Law contains provisions for a Critical Environmental Overlay Area for Steep Slopes and Gullies. This section of the Zoning Law is included as Attachment 10. The Critical Environmental Overlay Area for Steep Slopes and Gullies is shown on the Village Zoning Map which is included as Attachment 11.

The Building Inspector and Zoning Enforcement Officer are aware of any construction activities in the Village and insure that all proper permits have been applied for, including those required for construction activities. Erosion control plans and stormwater pollution prevention plans (SWPPPs) have been referred to the Village Engineer for review. Routine inspections have been performed by the Building Inspector with assistance from the Village Engineer, as required. Village officials and employee training is ongoing and listed in Attachment 7.

A reporting form has been developed and established to track construction activities and permits, including SWPPPs and is included as Attachment 12.

SWPPP's received by the Village are on file at Village Hall.

Goals, Activities and Assessment for Construction Activities

The goal of this section is to improve contractor awareness and compliance.

The activity planned is to compile a list of site contractors who work in the Village and conduct a survey to determine their awareness and training in stormwater construction requirements. Additional training and education will be designed to meet the needs determined from the survey.

The measurement will be the number of contractors contacted and the survey results.

6. Post Construction Stormwater Management

A local law for Stormwater Management and Erosion and Sediment Control, meeting the minimum requirements of the State model law, has been adopted and is on file in Village Hall and posted on the stormwater website.

To date, the only post construction stormwater practices identified are located at the Castleton Elementary School. These facilities are maintained by the School District.

A report form has been developed to track post construction inspections and maintenance and is included as Attachment 13.

Goals, Activities and Assessment for Construction Activities

The goal of this section is to improve inspection and maintenance of post construction stormwater practices.

The activity planned is to develop a long term maintenance and inspection program for post construction stormwater practices.

The measurement will be completion of the maintenance and inspection program.

7. Pollution Prevention and Good Housekeeping for Municipal Operations

Infrastructure owned and maintained by the Village includes;

- Village streets and storm sewers
- Wastewater system – sewers and wastewater treatment plant
- Water system – supply wells and treatment, water storage tanks, water mains and hydrants
- Village Hall
- Village Parking Lot
- Village Park
- Department of Public Works Garage
- Salt Storage Shed
- Old Brickyard

The Village has adopted a Pollution Prevention and Good Housekeeping Guide following a model developed by NYSDEC. This document is on file at Village Hall and included as Attachment 14.

A list of training undertaken by Village officials and staff is included as Attachment 7.

Regular maintenance performed by the Village related to stormwater management includes:

- Sweeping of streets and parking lot weekly.
- Curb side leaf pickup in the Village for approximately 8 weeks in the fall of the year.
- Debris removal using Village owned vacuum truck as needed, also used to clean out catch basins.
- Village chipper used to cleanup trees/branches after storms and as needed.
- Village wide cleanup of yard debris occurs 8 Saturdays a year. Village opens brick yard for residents to drop off yard debris to be added to the Village compost located in the brick yard.
- Cleaning out catch basins, annually, after large storms or more frequently as needed.
- Curbside recyclable pick up by the Village every Wednesday.

The Village does not use fertilizer or pesticides on its buildings and grounds.

A report form for activities performed relating to pollution prevention and good housekeeping is attached as Attachment 15.

Goals, Activities and Pollution Prevention and Good Housekeeping

The goal of this section is to improve pollution prevention and good housekeeping procedures for municipal operations. The activities planned are to:

1. Conduct a self assessment of all municipal facilities.
2. Continue with program of street sweepings weekly.
3. Continue with program of catch basin cleanings, twice per week.

The measurement will be miles of streets swept, number of catch basins cleaned and status of self assessments of Village facilities.

8. Attachments

1. Notice of Intent
2. Village Map of Storm Sewer Outfalls
3. Annual Reports
4. Local Law: Illicit Discharge, Detection, & Elimination Program
5. Village Storm Sewer Map
6. Village Stormwater Organizational Chart
7. Village Officials and Staff Stormwater Training
8. Report Form: IDDE
9. Local Law: Stormwater Management and Erosion and Control
10. Zoning Law Article XI, Critical Environmental Overlay Area, Steep Slopes
11. Zoning Map
12. Report Form: Construction Activities
13. Report Form: Post Construction Inspections and Maintenance
14. Report Form: Pollution Prevention and Good Housekeeping Guide
15. Report Form: Municipal Pollution Prevention and Good Housekeeping