



Town of Griswold



*28 Main Street
Griswold, CT 06351
Phone (860) 376-7060, Fax (860) 376-7070*

GRISWOLD DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

January 24, 2013

Mr. Chris Stone
Stormwater Permit Coordinator
Bureau of Water Management
Department of Environmental Protection
79 Elm Street
Hartford, CT 06106- 5127

Re: General Permit GM000169 MS4-Annual Report for Calendar 2012

Dear Mr. Stone,

I am sending you this Annual Report to update progress in the seven sections of the MS4 Stormwater Management Plan achieved in calendar 2012 and some suggestions what will be undertaken and completed in calendar 2013. This 2012 report is the second of two additional interim years (following the 2009 and 2010 set of interim years) the CTDEEP has automatically renewed the General Permit and Municipal Stormwater Management Plan without modifications to include two additional interim years, namely 2013 and 2014. Progress reports and intended goals for the next report will be made directly on each appropriate Section of the Municipal Stormwater Management Plan. The information in this report was presented for comment in mid December 2012 and noticed for a public hearing during the January 17, 2013 meeting of the Griswold Inland Wetlands and Watercourses Conservation Commission, the lead agency for the MS4 Stormwater Management Plan. Also, this report was made available for review in the Planning and Community Development Office, with the Town Clerk, and on the Town website over the period prior to a public hearing noticed and conducted on January 17, 2013.

SET OF SIX (6) STORMWATER SAMPLES for October 19, 2012

The results of the stormwater samples from six locations (excluding one industrial discharge location at Wyre-Wynde where the industrial activity has ceased and the station has been replaced one on Ashland Street in a residential area and discharging into the Pachaug River) and for the required spectrum of chemical tests are presented in the first attachment which includes the Stormwater Monitoring Report Form, the location of the sampling sites, results of testing of the twelve parameters at each station by

Connecticut Testing Laboratory, and the Chain of Custody Record. The results of this October 19, 2012 stormwater samples were unremarkable and similar to other stormwater test data with one exception. The levels of E-coli were elevated (greater than 12,000 cells/100 ml) at both the Elizabeth Street and the South Main Street sampling location. There was a septic odor also at the Elizabeth Street location. I have referred this data and observations to the Sanitarian at Uncas Health District.

SECTION 1. DEVELOPMENT of STORMWATER MANAGEMENT PLAN

This edited plan was originally presented in mid to late December 2006 to both the Inland Wetlands and Watercourses Conservation Commission (IWWCC), which has been designated as the lead agency for public participation, and to the Planning and Zoning Commission (PZC). Both of these Commissions have early input to the implementation of this plan after adoption so they were contacted first. The IWWCC conducted a public hearing in their December 18, 2007 meeting and finalized the plan to be made effective on February 15, 2007. An edited copy of this final Stormwater Management Plan is attached reflecting progress for each section for the 2012 calendar year as well as intentions to close any partially open items in future 2013 annual reporting period which should carry Griswold through the first year of the second set of two interim years on the unmodified General Stormwater Permit.

SECTION 2. PUBLIC EDUCATION and OUTREACH on STORMWATER IMPACTS

A continuous link has been maintained at the town web site for ready access to USEPA web site materials for Best Management Practices for Stormwater Control. Rather than inclusion in fall 2008 tax bills, copies of the EPA stormwater brochure "Step by Step" were mailed directly to 1900 registered voters in the First Voting District, which includes all of the urbanized area and some of the contiguous non-urbanized area. In addition, the "Step by Step" brochure was added to the town website for access to all citizens on a continuing basis. Rather than a brochure information describing location and dates of hazardous waste collection was put on the town website. In 2010, the "Step by Step" brochure was mailed or hand carried to an updated list of businesses in Jewett City and Town of Griswold. In 2011, a selective hand redistribution of this brochure was conducted for businesses in the urbanized area. Because of a permitted (by CTDEEP) drawdown of the Ashland Pond stretch of the Pachaug River in winter 2011-2012, the IWWCC members/other volunteers collected a large inventory of metal junk from what is usually the bottom of Ashland Pond in honor of Earth Day 2012. An individual IWWCC member also removed metal debris objects from below the Slater Mill spillway since the flow conditions permitted it. A spring clean-up of trash along the edges of Ashland Pond/Pachaug River is contemplated by boat in spring/summer 2013 as a means for increased public education and outreach for stormwater impacts.

SECTION 3. PUBLIC INVOLVEMENT/PARTICIPATION

Griswold IWWC has been informed by a letter dated December 21, 2006 that they will be the lead agency for public participation in presenting the draft plan. Public hearings conducted by the Griswold IWWCC were conducted on January 15, 2007 and the final Municipal Stormwater Management Plan was made effective February 15, 2007. A public hearing for the calendar 2012 Annual Report for the MS4 Stormwater Management Plan was held on in the IWWCC meeting of January 17, 2013. Previous public hearings have been advertised twice as legally required but have attracted so far no citizen input or questions.

SECTION 4. ILLICIT DISCHARGE DETECTION and ELIMINATION

Inspection and mapping of all storm water pipe discharges (12 inches in diameter or greater) in the urbanized area (Borough of Jewett City) was completed by GEI Consultants, Inc. in the first annual report submitted August 2, 2006 (covering 2004). No illicit discharges were detected in that earlier survey. Several ordinances from MS4 towns were reviewed to determine which one might serve as an appropriate starting point for adaptation of the illicit discharge ordinance to Griswold. The ordinance from the Town of Wethersfield was chosen and Paul Burgess of GEI Consultants converted the language to reflect circumstances in Griswold. After review and changes by the Board of Selectmen, the text of the new ordinance Section 200 Illicit Discharge Ordinance was taken to Town Meeting and was enacted in February 2009.

In the 2009 Annual Report, I included a map showing the location, size and construction materials of the 20 stormwater discharges over 15 inches in diameter along with many more locations of about 200 cross-culverts mapped earlier by Paul Burgess LLC for this program and for better maintenance scheduling by the Public Works Departments in inspecting these sites and evaluating their maintenance condition. During 2010, several new stormwater discharge locations as well as location of special stormwater control devices (Stormceptor-type units) under town maintenance responsibility were also located by GPS in the field and added to the stormwater infrastructure GIS map layer. No new larger stormwater discharges were added to the municipal stormwater system in 2012. Thus, by the end of 2010, we had a complete location map for stormwater discharges over 15 inches in diameter for both Borough and Town of Griswold. Should any larger stormwater discharges be added to the Town Road system in calendar 2013, they will be added to this map and list.

SECTION 5. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

The Planning and Zoning Commission was notified by letter dated December 21, 2007 which included a copy of the draft plan with a description of the areas where this Commission should respond to different aspects of the proposed plan. Draft changes in zoning and subdivision regulation have been considered initially in 2007 and throughout

calendar 2008 and into 2009. Several significant stormwater related changes to the Borough of Jewett City Zoning Regulations were taken to public hearing and made effective on March 30, 2009. In August 2009, multiple changes in Griswold Zoning and Subdivision Regulation added requirements to show a specific site plan sheet for temporary E and S controls during construction of a new town road and initial clearing of new subdivision lots in addition to the permanent structural or non-structural controls installed for the finished road/subdivision lots using the 2004 CTDEP Stormwater Manual as a guide for design. The Planning and Zoning Commission now puts a condition of approval registration through the General Permit process for subdivisions or subdivisions that include new town roads or larger commercial projects that are likely large enough to meet the General Permit criteria. During calendar 2009, a large Elementary School project and a Hotel, Restaurant, Travel Center (gas station, convenience store, donut drive-through, and carwash) were started. As part of the town requirements for construction inspections, the Town Planner gave the project owner/road constructor a blank copy of the CTDEP Document "General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities" and now require a copy of the registration number before any adjustment of site cash or letter of credit occurred. During early calendar 2009, the above items were discussed in more detail and taken to public hearing and enacted as changes to the Town of Griswold Zoning and Subdivision Regulations on August 10, 2009. Copies of the stormwater related sections of these regulations were attached as an exhibit to the 2009 Annual Report. During the 2010 Annual Report, changes in stormwater design policy were expected to be reflected in draft of an updated Town Road Ordinance Section 202. Unfortunately, draft revisions to the Town Road Ordinance Section 202 were not able to be funded and conducted in calendar 2010, 2011, or in 2012. Effort in 2011 was diverted to the preparation of an updated Stormwater Pollution Prevention Plan for the Public Works Garage and Transfer Station at 1148 Voluntown Road. The review of Section 202 is expected to be done now in calendar 2013 and reported in the 2013 Annual Report. Also, some language for general requirements guiding developers to control volumes of wastes on construction sites will be completed in calendar 2013 rather than the 2012 period as originally planned.

SECTION 6. POST-CONSTRUCTION STORMWATER MANAGEMENT in NEW DEVELOPMENT AND REDEVELOPMENT

The Griswold PZC considered and enacted in 2009 some changes in their regulations which will require best management practices for stormwater control and pretreatment means to reduce the impact of stormwater water quality prior to entering regulated wetlands areas. The 2004 CTDEP Stormwater Management Manual will be used to provide guidelines to the engineers who design for the applicant and review applications on behalf of the Town of Griswold. General Low Impact Development (LID) techniques are desired by Commissioners and are expected to be specifically called out in the strengthening of Wetlands, Zoning, and Subdivision regulations as well as the Town Road Ordinance Section 202 now expected during 2013. Reference to Low Impact Development techniques to reduce impact of stormwater was already reflected in a

completely revised version of the Inland Wetlands and Watercourse Conservation Commission Regulations enacted December 15, 2011.

SECTION 7. POLLUTION PREVENTION/GOOD HOUSEKEEPING for MUNICIPAL OPERATIONS

The municipal employee training program in pollution prevention was devised by Paul Burgess LLC and given to Highway Department employee on June 30, 2008 and was included in an earlier annual report. Over calendar 2012, normal annual streetsweeping and catch-basin maintenance in the spring for both Borough and Town was conducted. In 2009 , a maintenance map of the catch basins in the urbanized area was created and the positions of all catch-basins were either confirmed from the planimetric data or added to the GIS layer. In the process of revisiting municipal catch-basins in the urbanized area marked (with “No Dumping...Drains to River”) catch basins were maintained where necessary in the urbanized area will be created as a new GIS layer. In 2013, the markers will be inspected and maintained in the urbanized area. During 2011, Paul Burgess LLC has been contracted to inspect the Highway Garage and Transfer Facility again and update the Stormwater Pollution Prevention Plan to reflect current conditions and requirements.

Please let me know if you have any questions or comments on the above Annual Report and attachments for MS4 activities in the Town of Griswold. I will assume that the attached report and set of six (6) stormwater samples would be credited as our calendar 2012 Annual Report. The two year interim General Permit extension shows calendar 2012 report as the second of the two annual reports under this January 2011 permit extension to the end of 2012. Our 2013 Annual Report would be the first annual report under the second two-year extension of the unmodified interim permit.

Sincerely,

Carl S. Fontneau, AICP
Town Planner

cc Phil Anthony
Todd Babbitt



General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

November 11, 2012

PERMITTEE INFORMATION

Town: Town of Griswold
Mailing Address: 28 Main Street P.O. 369 Jewett City, CT 06351
Contact Person: Carl Fontneau Title: Town Planner Phone: 860 376 7060 X 111
Permit Registration # GSM

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): See Attached
Please circle the appropriate area description: Industrial, Commercial, or Residential
Receiving Water (name, basin): See Attached
Time of Start of Discharge: See Attached Chain of Custody
Date/Time Collected: October 19, 2012 , See Chain of Custody Water Temperature: _____
Person Collecting Sample: Paul Burgess, P.E.
Storm Magnitude (inches): 0.67 inches Storm Duration (hours): 12 hrs
Date of Previous Storm Event: October 15, 2012 (0.21 inches)

MONITORING RESULTS

See attached analytical reports

Parameter	Method	Results (units)	Laboratory
Sample pH			
Rain pH		6.6	
Hardness			
Conductivity			
Oil & Grease			
COD			
Turbidity			
TSS			
TP			
Ammonia			
TKN			
NO ₃ +NO ₂			
E. coli			

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.	
Authorized Official: _____	
Signature: _____	Date: _____

Date Samples Received: 10/19/12

Client Name : **Paul Burgess, LLC**
 Report Date : 11/05/12

CTL Lab No. : 1012302
 PO/ Job No. : Griswold

RESULTS OF ANALYSIS

Matrix Type :	W	W	W
CTL Sample No.	15663	15664	15665
Field ID :	American	French Club	Elizabeth
	SW-1	SW-2	SW-3

Parameters	RL				Method No.
pH	0.1	7.2	7.2	6.8	4500-H ⁺ B
Hardness-mg/L	2	18	44	14	2340 B
Spec. Cond.-umhos/cm	1	87	222	62	2510 B
Total Oil & Grease-mg/L	5	6.0	ND	ND	1664 A
COD-mg/L	4	30	41	35	410.4
Turbidity-NTU	0.5	10.3	128	8.4	180.1
Total Susp. Solids-mg/L	1	6	41	8	2540 D
Total Phosphorus-P-mg/L	0.01	0.21	0.12	0.18	365.3
Ammonia-N-mg/L	0.05	0.47	0.14	0.20	350.1
TKN-mg/L	0.05	1.82	1.38	1.37	351.2
Nitrate + Nitrite-N-mg/L	0.1	0.6	0.4	0.3	4500-NO ₃ F
E.Coli / 100ml	100	3,000	1,500	>12,000	9222 B/9222 G

Matrix Type: W= Water/Aqueous **S=** Soil/Solid **O=** Oil/Hydrocarbon

RL= Reporting Limit **ND=** Not Detected

Method Numbers Referenced From:

EPA-600/4-79-020. Methods for Chemical Analysis of Water and Wastes. March 1983.
Standard Methods for the Examination of Water and Wastes, 19th Edition. APHA, AWWA, WPCF. 1995
N-Hexane Extractable Material (HEM) by Extraction and Gravimetry (Oil and Grease). April 1995. USEPA

Connecticut Testing Laboratories, Inc.
165 Gracey Avenue / Meriden, CT 06451
(203) 634-3731 (Fax) 630-1336
Certification CT-PH0547/ MA-CT035

Date Samples Received: 10/19/12

Client Name : **Paul Burgess, LLC**
 Report Date : 11/05/12

CTL Lab No. : 1012302
 PO/ Job No. : Griswold

RESULTS OF ANALYSIS

Matrix Type :	W	W	W
CTL Sample No.	15666	15667	15668
Field ID :	South Main	Ashland St. 1	Ashland St. 2
	SW-5	SW-6	SW-4

Parameters	RL				Method No.
pH	0.1	7.0	7.0	7.4	4500-H ⁺ B
Hardness-mg/L	2	13	15	26	2340 B
Spec. Cond.-umhos/cm	1	64	67	171	2510 B
Total Oil & Grease-mg/L	5	ND	ND	ND	1664 A
COD-mg/L	4	82	33	20	410.4
Turbidity-NTU	0.5	72.0	11.8	8.8	180.1
Total Susp. Solids-mg/L	1	64	12	8	2540 D
Total Phosphorus-P-mg/L	0.01	0.25	0.31	0.17	365.3
Ammonia-N-mg/L	0.05	0.40	0.36	0.11	350.1
TKN-mg/L	0.05	2.00	1.46	1.00	351.2
Nitrate + Nitrite-N-mg/L	0.1	0.5	0.4	1.9	4500-NO ₃ F
E.Coli / 100ml	100	>12,000	3,200	3,200	9222 B/9222 G

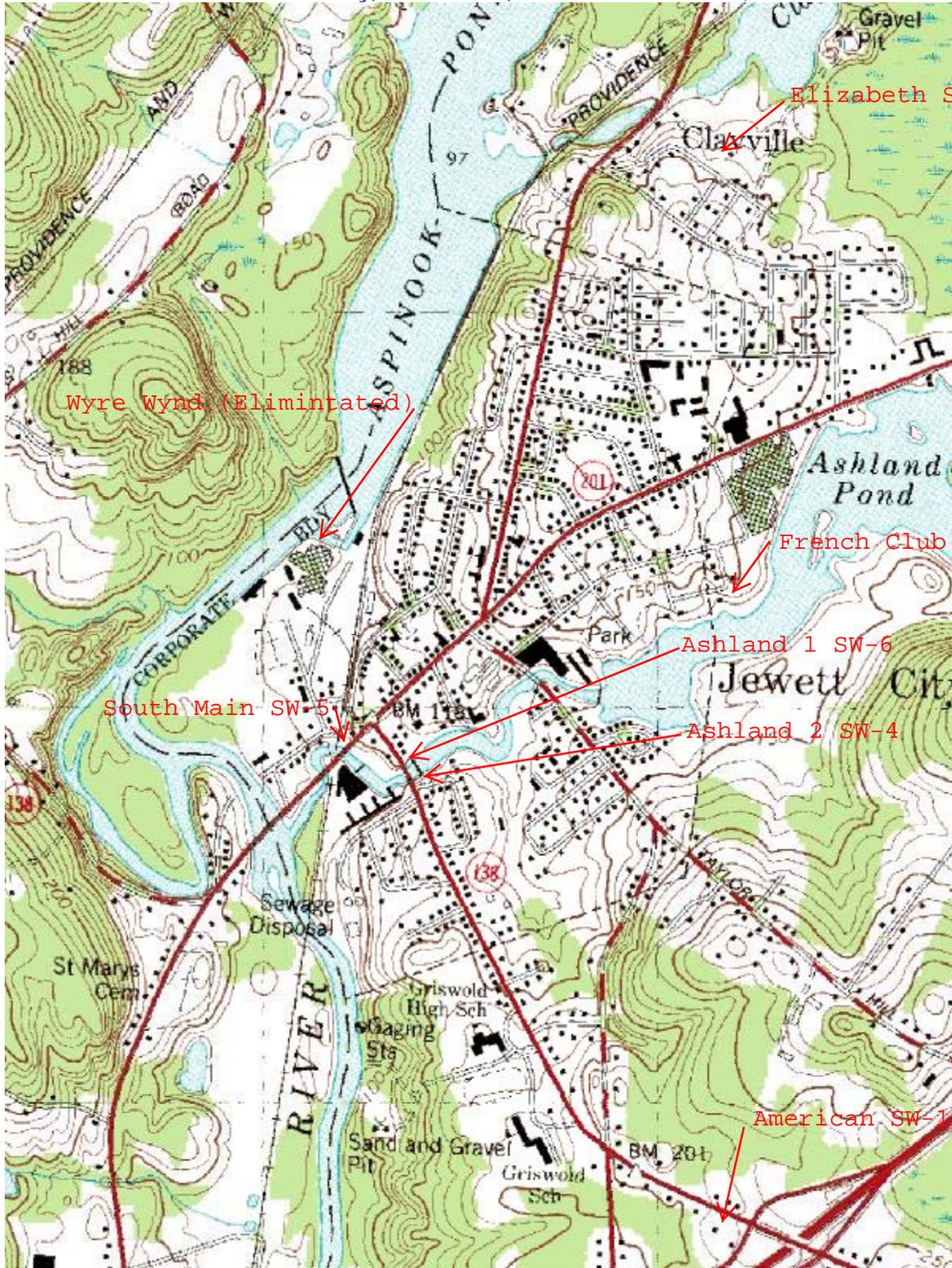
Matrix Type: W= Water/Aqueous **S=** Soil/Solid **O=** Oil/Hydrocarbon

RL= Reporting Limit **ND=** Not Detected

Method Numbers Referenced From:

EPA-600/4-79-020. Methods for Chemical Analysis of Water and Wastes. March 1983.
Standard Methods for the Examination of Water and Wastes, 19th Edition. APHA, AWWA, WPCF. 1995
N-Hexane Extractable Material (HEM) by Extraction and Gravimetry (Oil and Grease). April 1995. USEPA

Connecticut Testing Laboratories, Inc.
165 Gracey Avenue / Meriden, CT 06451
(203) 634-3731 (Fax) 630-1336
Certification CT-PH0547/ MA-CT035



MS4 Sample Locations
Griswold, CT

Town Of Griswold
 MS4 Storm Water Sampling
 Nov 2012

<u>Sample Locations</u>	<u>Watershed Description</u>	<u>Discharge Stream</u>
South Main Street (41° 36' 15'' N 71° 59' 08'' W)	Mixed Res, Comm, Ind	Pachaug River
Ashland Street -1 (41° 36' 20'' N 71° 58' 45'' W)	Residential	Pachaug River
French Club (41° 36' 27'' N 71° 58' 25'' W)	Comm. and Res.	Ashland Pond
Elizabeth Lane (41° 37' 03'' N 71° 58' 21'' W)	Residential	Clayville Pond via drainage swale
American Inn (41° 35' 36'' N 71° 58' 22'' W)	Commercial	Quinebaug River via drainage swale
Wyre Wind Industries (41° 36' 28'' N 71° 59' 12'' W)	Industrial	Quinebaug River via storm drain
<p>Note- This sample was not collected because the facility is no longer operational. This sample point was replaced by a residential discharge (Ashland Street 2), as there is no distinct industrial discharge remaining in Jewett City.</p>		
Ashland Street 2	Residential	Pachaug River

Introduction 2012 MS4 Stormwater Report

This Stormwater Management Plan has been prepared to comply with the Connecticut Department of Environmental Protection (CTDEP) *General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems* dated January 9, 2004. In the sections that follow, language from the General Permit is provided (italics), followed by the Best Management Practices (BMPs), as listed in the Part B registration. In addition to these BMPs, the Town is required to conduct annual storm water monitoring as specified in the General Permit.

Section 1. Development of Stormwater Management Plan

The Stormwater Management Plan (the Plan) shall address the Minimum Control Measures as indicated in this section. Those measures indicated as required within the Urbanized Area portion of the Regulated Small MS4 shall be implemented, at a minimum, within those areas. At the discretion of the permittee, the Minimum Control Measures required within the Urbanized Areas may also be applied to any MS4 outside of the Urbanized Area. Those measures indicated as required throughout the municipality shall be implemented for all areas of the municipality regardless of Urbanized Area.

(a) Minimum Control Measures

For each Minimum Control Measure, the permittee shall: define appropriate BMPs; designate a person(s) and job title responsible for each BMP; define a time line for implementation of each BMP; and define measurable goals for each BMP. The Minimum Control Measures in the Stormwater Management Plan include, but are not limited to those in the following sections.

Section 2. Public Education and Outreach on Stormwater Impacts

(A) *Required throughout the municipality:*

- (i) *implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on waterbodies and the steps that the public can take to reduce pollutants in stormwater runoff.*

The following BMPs have been developed; refer to the pages that follow for details.

- Stormwater Educational Materials
- Education/Outreach for Commercial Activities
- Proper Disposal of Household Hazardous Waste

Details of BMPs

Public Education

Storm Water Educational Materials

Responsible Party: **First Selectman and Town Planner**

Start Date: **1/2009**

End Date: **Ongoing**

Permits Years during which activities are scheduled: Second Interim Permit Year 2-2012

Year 1 Year 2 X

Name of Separate Implementing Entity: **Town of Griswold - Town Planner**

BMP Description:

- **Post Link on web site.**

<http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm>

- **Evaluate mailer provided in tax bills.**

Has Goal Been Accomplished: **Yes. BMP website link established in calendar 2007 and will be continued and updated as necessary ; Mailer sent out in 2008 to urbanized area plus.**

Work Performed

Date: June 30, 2008

Responsible Party: Town Planner and Paul Burgess LLC

Description:

1900 copies of "Step by Step" A Citizen's Guide to Curbing Polluted Runoff were sent to citizens in voting district 1 including all of the urbanized area and significant contiguous non-urbanized area. No contact or inquiries were generated from this pamphlet so it was not considered a successful or cost effective way to inform the public. At this point, Griswold is not considering re-mailing any pamphlet to all citizens in 2010 or in subsequent years based on the lack of interest generated by this mailing.

Details of BMPs	
Public Education	
Education/Outreach for Commercial Activities	
Responsible Party: First Selectman and Town Planner	
Start Date: 1/2009	End Date: Ongoing
Permits Years during which activities are scheduled: Second Interim Permit Year 2 <div style="text-align: center;"> Year 1 X Year 2 X </div>	
Name of Separate Implementing Entity: Town of Griswold	
BMP Description: <ul style="list-style-type: none"> • Post Link on web site. <p style="text-align: center;"> http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Button=detail&bmp=6 </p> <ul style="list-style-type: none"> • Evaluate mailer to businesses. 	
Has Goal Been Accomplished: Partially, BMP link established and continues; Business mailer was sent or hand-delivered to businesses during 2010 especially in the urbanized area. Business mailer selectively redistributed by hand to businesses in the urbanized area during 2011. Will put pamphlet copies in Information Kiosk in front of Town Hall when it is installed in a future year.	
Work Performed	
Date: June 30, 2008	Responsible Party: Town Planner and Paul Burgess LLC
Description: Evaluate feasibility of Stormwater mailer to local businesses. In 2010, "Step by Step" pamphlets were hand-delivered or mailed to a list of current local businesses in Jewett City and Griswold. Hand delivered pamphlets as before to businesses in the urbanized area during 2011. References to Low Impact Development and better handling of stormwater even in the urbanized area will be added to future versions of various local regulations....LID requirements for project adjacent to watercourses were added to the December 2011 Inland Wetlands Watercourse and Conservation Commission Regulations.	

Details of BMPs	
Public Education	
Proper Disposal of Household Hazardous Waste	
Responsible Party: First Selectman and Town Planner	
Start Date: 1/2009	End Date: Ongoing
Permits Years during which activities are scheduled: Second Interim Permit Year 2 -2012	
Year 1	Year 2 X
Name of Separate Implementing Entity: Town of Griswold	
BMP Description:	
<ul style="list-style-type: none"> • Post link on town web site to USEPA website materials <p style="margin-left: 40px;">http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Button=detail&bmp=3</p> <ul style="list-style-type: none"> • Provide information on website regarding hazardous waste collection locations and dates. • Evaluate feasibility of mailers to taxpayers. 	
Has Goal Been Accomplished: BMP link established. Pamphlets sent to urbanized area	
Work Performed	
Date: June 30, 2008	Responsible Party: Town Planner
Description:	
<p>Link to USEPA website materials is being maintained and updated on the Town website.</p> <p>Provided annual information on website for location and dates of hazardous waste collections.</p> <p>“Step by Step” pamphlets sent to citizens in voting district 1 including the entire urbanized area and significant portion of the non-urbanized area in 2008. Because no interest was generated in understanding the stormwater management program, the distribution of pamphlets to all citizens is not planned again. Select redistribution to businesses in urbanized area will be done in future years.</p>	

Section 3. Public Involvement/Participation

(A) *Required throughout the municipality:*

- (i) *comply with state and local public notice and Freedom of Information requirements when implementing a public involvement/participation program. Where notice requirements are inconsistent, the notice provisions providing for the most notice and opportunity for public comment shall be followed.*
- (ii) *develop a public involvement/participation program that includes the public in developing, implementing, and reviewing your stormwater management plan.*

The following BMPs have been developed; refer to the pages that follow for details.

- Public Participation Program
- Public Notice and FOI Requirements
- Stormwater Stenciling- Borough
- Stream Cleanup

Details of BMPs

Public Participation

Public Participation Program

Responsible Party: **First Selectman and IWWC Commission**

Start Date: **1/2009**

End Date: **Ongoing**

Permits Years during which activities are scheduled: Second Interim Permit Year 2-2012

Year 1 Year 2 X

Name of Separate Implementing Entity: **Conservation Commission (IWWCC)**

BMP Description:

- **Assign Inland Wetland and Watercourses Conservation Commission responsibility for Public Participation.**

- **Post Stormwater Management Plan on Griswold web site for public review and comment.**

Has Goal Been Accomplished: **Yes; each ongoing Annual Reports posted on website and taken to public hearing by IWWCC for input by the public.**

Work Performed

Date: Calendar 2008

Responsible Party: **Griswold IWWC Commission/ Town Planner**

Description:

As lead agency, IWWCC will continue to review draft Annual Report in public hearing during December or January for the calendar year and post annual reports/incremental progress on the website.

Public Hearing for 2012 Annual Report was scheduled for January 17, 2013 at 7:00 P.M in the first floor meeting room of Town Hall, 28 Main Street.

Details of BMPs

Public Participation

Public Notice and FOI Requirements

Responsible Party: **First Selectman and IWWC Commission**

Start Date: **1/2009**

End Date: **Ongoing**

Permits Years during which activities are scheduled: Second Interim Permit Year 2 - 2012

Year 1 Year 2 X

Name of Separate Implementing Entity: **Town of Griswold Inland Wetlands and Watercourses Conservation Commission**

BMP Description:

- **Post Stormwater Management Plan on Griswold web site for public review and comment.**
- **Annual Stormwater Reports (see General Permit for report requirements) will be made available for public review 30 days in advance of submission to CTDEP. Availability will be posted on town web site and at Town Hall. Copies will be available at Town Hall (Planning Department).**
- **FOI requirements will be complied with.**

Has Goal Been Accomplished: **Yes. Plan and Annual Report Changes placed on website. Ongoing annual updates to be treated in same fashion for each reporting year.**

Work Performed

Date: Ongoing

Responsible Party: **Griswold IWWC Commission**

Description:

Plan and Annual Report Updates to the Plan placed on website each year and made available for public review in Planning Department/Town Clerk 30 days in advance of submission to CTDEP.

Public hearing notice provided in newspaper two times prior to January 17, 2013 public hearing.

Details of BMPs

Public Participation

Stormwater Stenciling- Borough

Responsible Party: **First Selectman and Highway Department**

Start Date: **1/2009** End Date: **Ongoing**

Permits Years during which activities are scheduled: Second Interim Permit Year 2 - 2012

Year 1 X Year 2 X

Name of Separate Implementing Entity: **Town of Griswold Highway Department**

BMP Description:

- **Highway Department to stencil no discharge notices on catch basins in Borough of Jewett City.**

Has Goal Been Accomplished: Yes, **Accomplished in calendar 2008, Maintenance as necessary in future years.**

Work Performed

Date: Responsible Party: **Highway Department Supervisor**

Description: Paul Burgess LLC located and marked about 200 catch basins in the urbanized area. These catch basins were marked with “No Dumping..Drains to River” medallions. In calendar 2009, these urbanized area catchbasins were revisited, located by GPS and mapped(or confirmed from planimetric data) on a GIS layer, and maintained/repared as necessary. Map provided as an exhibit. Labelling of catchbasins was not inspected and maintained in calendar 2010 or 2011. This maintenance effort was not performed in 2012. This effort will be directed in 2013 using existing maps of the urbanized area and visiting the sites to inspect and maintain as necessary.

Details of BMPs

Public Participation

Stream Cleanup

Responsible Party: **First Selectman and IWWC Commission**

Start Date: **1/2009** | End Date: **Ongoing**

Permits Years during which activities are scheduled: Second Interim Permit Year 2
 Year 1 Year 2 X

Name of Separate Implementing Entity: **Volunteers/Volunteer Groups**

BMP Description:

- **Annual cleaning of accessible trash from Ashland Pond and Pachaug River in Borough.**

Has Goal Been Accomplished: **2012....No, but alternative Earth Day trash collections were performed**

Work Performed

Date: Calendar 2008 | Responsible Party: **Griswold IWWC Commission/ Town Planner**

Description: During calendar 2009, the Town Planner and one volunteer each cleaned up a total of two trash bags from the shores of Ashland Pond. We expect to perform this annually from the water side, including 2010. In 2010 early spring, there was the near equivalent of a 100-year flood which prevented this clean up in the early spring. Cleanup was attempted in 2011, Private property access and liability are an issue from the land side. Cleanup in 2012 was part of the Commission response to Earth Day in April taking advantage of a drawdown of Ashland Pond at the time. 237 pounds of scrap metal, 17 used tires, 40 feet of chain-link fence, an 18 foot aluminum pole, 3 bowling balls, 7 bicycle frames, and 5 large trash bags of trash were retrieved by IWWCC members and other volunteers from what is usually the bottom of Ashland Pond. Bicycles, strollers, and a shopping cart were removed from the spillway of Slater Mill Dam as well.

Section 4. Illicit Discharge Detection and Elimination

(A) *Required throughout the municipality:*

- (i) *implement an ordinance or other regulatory mechanism to effectively prohibit non- stormwater discharges, except as provided in Section 3(a)(2)- General Permit-, into the MS4, as well as sanctions to ensure compliance, to the extent allowable under State or local law;*
- (ii) *inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste; and*
- (iii) *by the end of the third year of the general permit, expand the map required by subsection (B)(i) below to identify on such map all outfalls of 15" or greater where such outfalls are located anywhere within each municipality;*

(B) *Required within the Urbanized Area:*

- (i) *by the end of the second year of the general permit, develop a map or series of maps at a minimum scale of 1"=2000' and maximum scale of 1"=100' showing all stormwater discharges from a pipe or conduit with a diameter of 15" or greater (or equivalent cross-sectional area) owned or operated by the municipality. For each discharge the following information shall be included:*
 - a. *Type, material, and size of conveyance, outfall or channelized flow (e.g. 24" concrete pipe);*
 - b. *The name and Surface Water Quality Classification of the immediate surface waterbody or wetland to which the stormwater runoff discharges;*
 - c. *If the outfall does not discharge directly to a named waterbody, the name of the nearest named waterbody to which the outfall eventually discharges;*
 - d. *The name of the watershed in which the discharge is located.*
- (ii) *By the end of the fourth year of the general permit, expand the map required by subsection (B)(i) above to identify on the map all outfalls of 12" or greater that are located within an urbanized area;*
- (iii) *develop, implement and enforce a program to detect and eliminate existing illicit discharges, as defined in 40CFR 122.26(b)(2), into the MS4; and*
- (iv) *develop and implement a plan to detect and address future non-stormwater*

discharges, including illegal dumping, to the MS4.

The following BMPs have been developed; refer to the pages that follow for details.

- Map Outfalls in Borough(urbanized area)
- Illicit Discharge Elimination Program
- Map Outfalls Townwide

Details of BMPs

Illicit Discharge Detection & Elimination

Map Outfalls in Borough (Urbanized Area)

Responsible Party: **First Selectman and Town Planner**

Start Date: **1/2009**

End Date: **1/2013**

Permits Years during which activities are scheduled: Second Interim Permit Year 2 -2012

Year 1	Year 2
	X

Name of Separate Implementing Entity: Originally GEI, now Paul Burgess LLC/Designate

BMP Description:

- **Inspect and map all storm water pipe discharges (12 inches diameter and greater) in Borough (urbanized area).**

Has Goal Been Accomplished: **2006 – Yes**

Work Performed

Date: **May 2006**

Responsible Party: **First Selectman and Town Planner**

Description:

- **Work was completed by GEI in May 2006 and a map and spreadsheet produced. Information on pipe material and size was obtained and recorded.**

Details of BMPs	
Illicit Discharge Detection & Elimination	
Illicit Discharge Elimination Program	
Responsible Party: First Selectman and Town Planner	
Start Date: 1/2009	End Date: 1/2013
Permits Years during which activities are scheduled:	
Year 1	Year 2
x	
Name of Separate Implementing Entity: GEI Consultants, Inc.; Paul Burgess LLC; Town Planner	
BMP Description:	
<ul style="list-style-type: none"> • All storm water pipes in Borough (urbanized area) to be inspected dry (no flow) conditions to identify illicit discharges. • Develop ordinance to eliminate illicit discharges or to prevent their future initiation. 	
Has Goal Been Accomplished: 2006 pipes located; 2008 draft illicit discharge ordinance revised for submission to Board of Selectman; and ordinance enacted in calendar 2009	
Work Performed	
Date: See below	Responsible Party: First Selectman and Town Planner
BMP Description:	
<ul style="list-style-type: none"> • All storm drain outfalls were inspected in both urbanized areas and non-urbanized areas and no illicit discharges were observed. Work was completed by GEI in May 2006 and Paul Burgess LLC in 2007. <p>Illicit Discharge Ordinance was reviewed and revised in calendar 2008 and was implemented by Board of Selectmen and Town Meeting in calendar 2009.</p>	

Details of BMPs	
Illicit Discharge Detection & Elimination	
Map Outfalls Townwide	
Responsible Party: First Selectman and Town Planner	
Start Date: 1/2009	End Date: Ongoing Updates
Permits Years during which activities are scheduled: Second Interim Permit Year 2 - 2012	
Year 1	Year 2 X
Name of Separate Implementing Entity: Paul Burgess LLC/designate	
BMP Description:	
<ul style="list-style-type: none"> • Inspect and map all remaining storm water pipe (15 inches or greater) discharges in Town of Griswold by end of 2008; new discharges located and added annually to GIS map. 	
Has Goal Been Accomplished: Yes, during 2007-2008, better map provided in 2009 and updates were done in calendar 2010 and 2011. Updates as necessary will be done also in 2012. No updates were necessary in 2012.	
Work Performed	
Date: Calendar 2009	Responsible Party: First Selectman, Town Planner, Paul Burgess LLC, Public Works Director
Description: Paul Burgess LLC to inspected and mapped the stormwater discharges 15 inches or greater in the Town of Griswold as well as many cross-culverts in 2007-2008. Earlier reports exhibited the column data for this effort. In 2009, a better GIS map layer of the stormwater discharges in the non-urbanized area (and also cross-culverts) was attached as an exhibit. Newer roads and large municipal projects were added in calendar 2010. No additional discharge pipes over 15 inches were added during 2011 or 2012 to the municipal stormwater system. Updates as necessary will be done in 2013.	

Section 5. Construction Site Stormwater Runoff Control

(A) *Required throughout the municipality:*

- (i) *develop, implement, and enforce a program, or modify an existing program, to reduce pollutants in any stormwater runoff to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activity disturbing less than one acre shall be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. The program shall include, but not be limited to, the development and implementation of an ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions for non-compliance, to the extent allowable under state or local law;*
 - a. *procedures for notifying construction site developers and operators of the requirements for registration under the General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities;*
 - b. *requirements for construction site operators to implement appropriate erosion and sediment control best management practices in accordance with the Guidelines;*
 - c. *requirements for construction site operators to control waste at the site such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste that may cause adverse impacts to water quality;*
 - d. *procedures for site plan review which incorporate consideration of potential water quality impacts;*
 - e. *procedures for receipt and consideration of information submitted by the public; and*
 - f. *procedures for site inspection and enforcement of control measures.*

Section 6. Post-Construction Stormwater Management in New Development and Redevelopment

(A) *Required throughout the municipality:*

- (i) *develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the MS4 or directly to waters of the State. This program shall ensure that controls are implemented to require appropriate infiltration practices, reduction of impervious surface, creation of or conversion to sheet flow, measures and/or structures to reduce sediment discharge and any other innovative measures that will prevent or minimize water quality impacts;*
- (ii) *develop and implement strategies which include a combination of structural and/or non-structural best management practices (BMPs) appropriate for your municipality;*
- (iii) *use an ordinance or other regulatory mechanism to address the elements of subsection (i) above regarding post-construction runoff from new development and redevelopment projects to the extent allowable under State or local law; and*
- (iv) *ensure adequate long- term operation and maintenance of BMPs.*

The following BMPs have been developed; refer to the pages that follow for details.

- Land Use Regulations and Procedures

Details of BMPs	
Construction Site Stormwater Runoff Control	
Land Use Regulations and Procedures	
Responsible Party: First Selectman and Town Planner	
Start Date: 1/2009	End Date: Ongoing
Permits Years during which activities are scheduled: Second Interim Permit Year 2 <div style="text-align: center;"> Year 1 Year 2 X </div>	
Name of Separate Implementing Entity: Planning and Zoning Commission and Town Planner	
BMP Description: <ul style="list-style-type: none"> • Modify Borough Zoning Regulations to add similar Sediment and Erosion Control Requirements as Town Zoning Regulations. • Develop a procedure within Planning and Community Development Department to notify developers of CTDEP General Permit for Discharge of Stormwater and Dewatering Wastewater associated with Construction Activities. • Develop requirements for Developers to control waste at constructions sites. • Develop a procedure within Planning and Community Development Department for site inspection and enforcement of sediment and erosion control measures. • Town Planner, Wetlands Staff, Planning and Zoning Chairman and Inland Wetlands Commission Chairman should meet and discuss best method to implement these requirements. 	
Has Goal Been Accomplished: Substantial Progress in calendar 2009, 2010, and 2011. Goals nearly complete	
Work Performed	
Date: Ongoing	Responsible Party: First Selectman and Town Planner
Description: Borough Zoning Regulations for E and S (new section 13.9) were made effective on March 30, 2009. References to stormwater management policies, use of the 2004 CTDEP Stormwater Management Manual, and incorporation of varied LID (Low Impact Development) or BMP features into the regulatory process were accomplished in calendar 2009. Page changes from Griswold Zoning and Subdivision Regulations were made effective August 10, 2009 although they had essentially been in practice since 2008 as evidenced by permit site design. New IWWCC regulations based on CTDEEP Model Regulations with annual updates from 2007 through 2011 and including preferences for	

Low Impact Development techniques in wetlands or upland review areas were enacted to replace earlier regulations on December 15, 2011. As an alternative timeframe to 2012, Town Planner and Road Superintendent plan during 2013 to revise Section 202 of Town Ordinances (Streets and Sidewalks) to include 2004 Stormwater Manual and more LID features/design flexibility so that stormwater volumes might be reduced over the more conventional curb and catch basin design that is presently in the ordinance.

- o ZEO/WEO inspects E and S controls on an ongoing and case by case basis.

- o Informal procedures implemented to make developers aware of General Permit requirements were made including conditions on subdivision or special permit approvals and passing form/guidance manual for the General Permit to developers/builders of new town road or larger projects. Revisions to regulations in calendar 2009 made reference to the 2004 Stormwater Manual guidelines a more formal requirement.

- o Requirements for Developers to control waste at construction sites and meeting to determine best methods to implement were not considered in the 2010, 2011 or 2012 annual report. This will be shifted for action during the 2013 Annual Report year.

Section 7. Pollution Prevention/Good Housekeeping for Municipal Operations

(A) Required throughout the municipality:

- (i) develop and implement an operation and maintenance program that includes a training component for municipal employees and contractors and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations;*
- (ii) using training materials that are available from the EPA, the State or other organizations, this program shall include employee training to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance;*
- (iii) develop and implement a program to sweep all streets at least once a year as soon as possible after snowmelt;*
- (iv) develop and implement a program to evaluate and, if necessary, clean catch basins and other stormwater structures that accumulate sediment at least once a year, including a provision to identify and prioritize those structures that may require cleaning more than once a year; and*
- (v) develop and implement a program to evaluate and, if necessary, prioritize for repairing, retrofitting or upgrading the conveyances, structures and outfalls of the MS4.*

(B) Required within the Urbanized Area:

- (i) develop and implement a program to evaluate and prioritize those streets that may require sweeping more than once a year.*

The following BMPs have been developed; refer to the pages that follow for details.

- Pollution Prevention - Municipal Operations
- Street Sweeping and Catch basin Cleaning

Details of BMPs									
Pollution Prevention – Municipal Operations									
Training									
Responsible Party: First Selectman and Highway Supervisor									
Start Date: 1/2009					End Date: Ongoing				
Permits Years during which activities are scheduled: Second year of interim permit Year 2- 2012									
	Year 1	X	Year 2	X					
Name of Separate Implementing Entity: Town of Griswold									
BMP Description: <ul style="list-style-type: none"> Develop a training program for municipal employees (Highway Department). <p style="margin-left: 40px;">http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=min_measure&min_measure_id=6</p> <ul style="list-style-type: none"> It is recommended that the Highway Department review their various activities and develop topics for training. 									
Has Goal Been Accomplished: Yes, training program delivered to Highway Employees in 2008									
Work Performed									
Date: 2008			Responsible Party: First Selectman, Highway Supervisor, Paul Burgess LLC						
Description: <p>Paul Burgess LLC/Town Planner developed a custom training program/presentations for use by Griswold Highway Department in training or refresher training its employees in best management practices they could employ in highway maintenance. During 2011, Paul Burgess LLC produced and updated Stormwater Pollution Prevention Plan for the Public Works Garage and Transfer Station at 1148 Voluntown Road. Highway Supervisor intends to conduct the training program again in 2013 for several new employees and as a refresher for veteran employees.</p>									

Details of BMPs	
Pollution Prevention – Municipal Operations	
Street Sweeping and Catch Basin Cleaning	
Responsible Party: First Selectman and Highway Supervisor	
Start Date: 1/2009	End Date: Ongoing
Year 1 X Year 2 X	
Name of Separate Implementing Entity: Town of Griswold	
BMP Description: <ul style="list-style-type: none"> • Sweep all in streets in town once per year as soon as possible after snow melt. • Determine if streets in the urbanized area require sweeping more than once per year. • Develop and implement a program to evaluate, and if necessary, clean catch basins at least once per year. 	
Has Goal Been Accomplished: Yes, streets swept and catch-basins cleaned at least once per year. Streets in urbanized area (Jewett City) do not appear to require sweeping more than once per year in early spring.	
Work Performed	
Date: Ongoing	Responsible Party: First Selectman and Highway Supervisor
BMP Description: <ul style="list-style-type: none"> • Generally all streets in the Borough and others streets in town with curbing are swept once per year in the spring. Streets are monitored and they have not required sweeping more than once per year. In 2007, GEI Consultants investigated whether streets should be swept more than once and concluded by attached letter that there was no need for greater frequency street sweeping. • Catch basins townwide and in the Borough are cleaned once per year • During 2009, Paul Burgess LLC conducted an inspection and review of practices and conditions at the Town Public Works and Transfer Station facility for compliance to the Stormwater Pollution Prevention Plan submitted in 2000 . A letter dated March 24, 2009 was attached to the 2009 Annual Report. During 2011, Paul Burgess LLC we reinspected the Highway Garage and Transfer Station for compliance to stormwater plan and make recommendations. 	

- **During 2009, marked catch-basins in the urbanized area were located by GPS and added to a planimetric GIS map; catch-basin markers were also maintained if necessary. This will be part of a future annual maintenance plan so marker maintenance in urbanized area catch-basins will appear as an item in calendar 2013 annual stormwater report.**