

TOWN HALL 1 MONTEITH DRIVE FARMINGTON, CONNECTICUT 06032-1053

INFORMATION (860) 675-2300 FAX (860) 675-7140 "BULLETIN BOARD" (860) 675-2301

December 20, 2010

State of Connecticut

Department of Environmental Protection
Bureau of Water Management
79 Elm Street
Hartford, CT 06106-5127

Attn: Stormwater Permit Coordinator

RE: Annual Report on Municipal Storm Sewers for 2010

Town of Farmington

Sir or Madame:

Enclosed with this letter, we are transmitting the Annual Report on Municipal Storm Sewers covering our activities performed during the calendar year 2010 as required under subsection 6(i)(2) of the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 General Permit). As noted previously, I am currently the primary contact for departmental correspondence and inquires. The stormwater monitoring data and sample locations for 2010 have been obtained based on the alternative sampling plan that the Commissioner approved in February 2007, the results of which can be found in Attachments B and C.

A check for the municipal plan review fee, in the amount of \$187.50, was recently mailed to the Accounts Receivable Department at the CTDEP. I have enclosed a copy of check for your records.

I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with Section 22a-6 of the Connecticut General Statutes, pursuant to Section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute.

Sincerely,

Russell M. Arnold, Jr., P.D. Director/Town Engineer Department of Public Works

Town of Farmington

enclosures

AN EQUAL OPPORTUNITY EMPLOYER





2010 ANNUAL REPORT

Municipal Separate Storm Sewer System

FARMINGTON, CT

Prepared by

TOWN OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
Engineering Division
1 Monteith Drive
Farmington, CT 06032

December, 2010

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1. PURPOSE AND SCOPE

This Annual Report is required by subsection 6(i)(2) of the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 General Permit). The MS4 General Permit was issued by the Department of Environmental Protection (DEP) on January 9, 2004 and it is applicable to storm sewer facilities owned or operated by the Town of Farmington. The permit was extended "as-is" until January 9, 2011. The municipal storm sewer facilities owned by the Town of Farmington were registered by the filing of Part A and Part B of the required registration forms. This report is the vehicle by which the Town of Farmington is required to annually report to the DEP Stormwater Permit Coordinator on the status of compliance with the MS4 General Permit and to submit the stormwater monitoring data collected and analyzed during the year.

The stormwater monitoring data can be found in Attachment A, and mapping of the locations where the stormwater discharge samples were collected can be found in Attachment B.

The alternative sampling plan that was filed as Attachment D of the 2006 Annual Report was approved by the Department of Environmental Protection Stormwater Permit Coordinator on February 27, 2007.

The certification required under subsection 7(e) of the MS4 General Permit is presented in Section 3 of this report.

2. BEST MANAGEMENT PRACTICES

2.1 **Public Education**

The Town of Farmington has a newsletter, the *Farmington Town Letter*, which is published and distributed bi-annually to all postal customers, i.e., residences and businesses, with mailing addresses within the town. It is also posted on the town website. The articles published in the newsletter during 2010 were notifications and general useful information for the public.

In the April issue, articles were written regarding the upcoming Household Hazardous Waste Collection Day held on April 24th. In the October issue, the residents were informed that in the Summer of 2011, the Town will be instituting a new single stream recycling program.

The Town has also developed a Green Efforts Committee which consists of residents, students, Town staff, Board of Education, and Town Council members. This Committee has been working through the summer and early fall on several projects. One of its main projects will be the creation of a "Green" Newsletter and Webpage. The town wide newsletter will be dedicated to public awareness of green efforts in town as well as promoting energy efficiency and clean energy sources. The newsletter and website will contain articles on such topics as stormwater, recycling, understanding the value and protection of wetlands, the environment, and natural resources.

As noted in previous reports, the Town has eliminated the use of sand during its winter snow plowing efforts, and went to a salt product used prior and during a snowstorm. Based on our street sweeping records, there has been a large reduction in the volume of sand collected from the previous years, on all Town owned public roadways.

Contact continues to be maintained with other organizations involved with the stormwater program. These include the Department of Environmental Protection (DEP), the Department of Transportation (DOT), the Farmington River Watershed Association (FRWA), the Central Connecticut Regional Planning Agency (CCRPA), the Pequabuck River Watershed Association (PRWA) and the University of Connecticut education program known as the Nonpoint Education for Municipal Officials (NEMO) program.

The Town is also continuing to work with the local planning agency CCRPA to insure implementation of the Pequabuck River Watershed Management Plan. The plan was completed in 2005 and presented before the Farmington Conservation Commission on September 5, 2006 and the Town Council on December 12, 2006. The preparation of a Pequabuck River Watershed

Management Plan was a primary recommendation of "The Pequabuck River State of the Watershed Report" in December of 2004. The Town of Farmington is the most downstream town in the Pequabuck River Watershed, which drains parts of the Towns of Harwinton, Plymouth, Burlington, Bristol, Plainville and Farmington.

2.2 **Public Participation**

The Town of Farmington has collaborated with other local non-profit organizations in an attempt to involve the public in environmentally friendly projects. While the events were planned to perform certain tasks, one of the key goals was to involve the public to educate them of the surrounding environment and the possible negative effects of their everyday lifestyles. It is the hope of these organizations that the public becomes aware of the environment and works to change their ways and educating other friends and families.

During the spring of 2009, the Annual Farmington Town-Wide Clean-Up Day was conducted. The event was organized by the Farmington Garden Club and sponsored by local businesses.

The Town of Farmington Conservation Commission and Green Efforts Committee sponsored another Household Hazardous Waste Collection Program with the help of The Metropolitan District Commission. As noted above, the public was made aware of these activities through the Farmington Town Letter.

On October 2, 2010 the Farmington River Watershed Association had sponsored a Farmington River Clean-Up. It was sponsored by local businesses, and involved the public in cleaning up the banks of the Farmington River.

The Town will be working with the School Superintendent to allow Town Staff to conduct storm water education seminars in conjunction with their science programs, targeted to the elementary schools. The program will include simple but yet powerful pictures that help provide examples of how stormwater pollution affects everyone in their daily lives.

2.3 Illicit Discharge Detection & Elimination

The mapping of municipal storm sewer outfalls within the Town of Farmington is proceeding on schedule. Although it is not required, the present plan is to map all public, institutional and private storm sewers and outfalls and to differentiate the storm sewer outfalls and sewers

tributary to them on the basis of ownership. The specific size and area oriented requirements of the MS4 General Permit are being addressed as minimum objectives with respect to time. The mapping of outfalls greater than 12 inches owned or maintained by the Town of Farmington has been completed in Urbanized Areas, and storm sewer and storm water outfall mapping will be a continuing mapping maintenance activity. The above described mapping reflects a choice to approach the program requirements as components of a broader town-wide effort to control pollution occurring due to both non-point and point source discharges that directly affect surface water quality and discharges conveyed by storm sewers or other types of storm water conveyance. The program that is being developed relies heavily on the use of the State Building Code to establish and enforce a required local review and approval of new storm sewer connections to municipal, institutional, private and state-owned storm sewers and, in addition, the construction of new privately owned storm sewer outfalls. The adoption of an illicit discharge ordinance is currently being reviewed for Town Council consideration and action.

2.4 Construction Site Runoff

The Zoning Regulations, in Article IV, Section 11, requires the submission and approval of an erosion and sediment control plan whenever more than one half acre of land will be disturbed. The regulations also reference the *Connecticut Guidelines for Soil Erosion and Sediment Control* as amended. In addition, the regulations establish enforceable performance standards for construction activity that does not require the submission of an erosion and sediment control plan. These regulatory requirements continue to be enforced.

On November 26, 2007, the Town had updated the Farmington Inland Wetland and Watercourse Agency regulations that now requires all landowners to obtain a permit for activities listed in Section 2.1 of this permit, conducted within 150ft of a designated wetland or watercourse.

2.5 Post Construction Runoff Control

A post construction best management strategy has been developed and it is being implemented. It is based on the enforcement of Section 25 of Article IV of the existing Zoning Regulations. It has been determined that these regulations are sufficient and no new ordinances are planned.

Where there is a specific need for the maintenance of construction site runoff controls installed and maintained by an applicant during a post construction period, provisions to ensure the applicant understands the obligation to maintain those controls are being included in the zoning approval. Where post construction maintenance of storm sewer systems by private owners is necessary to ensure continuous effective operation and the avoidance of adverse water pollution impacts, the submission of maintenance programs is being required as a function of the approval process. In many cases, these programs are included in the Homeowners Association Documents. The Town has developed a "Declaration of Covenants for Maintenance of Storm and Surface Water Facility", that is signed by the Town and Owners. The document requires the owners to maintain the stormwater management system as approved by the Town. It also grants the Town the right to access the property for inspection purposes to insure that the system is being properly maintained and is continuing to perform in an adequate manner. Should it fail to maintain or correct any deficiencies, the Town is authorized to enter the property and make the required maintenance or improvements, and assess the property owner for all costs associated with the work.

In addition, an inventory of privately owned storm sewers is being developed in conjunction with the mapping of all storm sewers within the town.

2.6 Good Housekeeping

A training program for municipal employees is still in the process of being developed. Training to date has been limited to on-the-job instruction and training by supervisors and consultants. The primary focus of the training continues to be the cross training of existing employees within the divisions that make up the Department of Public Works aimed at ensuring a broader understanding of the roles of each member of the staff assigned specific stormwater management responsibilities and how those activities are integrated to meet the obligations of the stormwater general permit.

The practice of sweeping paved streets as soon as practical after snowmelt has been implemented. The Town has also converted from the use of a sand and salt mixture as ice control, to a commercial salt mixture. This operational change has significantly reduced the volume of sand that needs to be collected by street sweeping. The elimination of sand should improve the environmental health of the small and medium sized streams within the Town of Farmington, which have characteristically developed abnormal bottom deposits dominated by the erosion of sand from roadways. The DOT adopted a similar program in 2005 opting to use a liquid mixture in lieu of sand and salt.

The evaluation and cleaning of stormwater structures and the evaluation and prioritization of the need to upgrade and repair stormwater structures have always been routine activities within the

Department of Public Works. These activities will be continued and the effectiveness of the effort can be expected to improve as a result of the focus created by the stormwater general permit and the stormwater management training program that is being developed. The elimination of the use of sand for skid control is a manifestation of this focus. No additional staff are being added to materially expand the programs outside of the normal annual budget process.

2.7 **Monitoring**

The monitoring of six stormwater outfalls was planned and completed during the fall of 2010. The analytical results are presented on the laboratory examination reports and on the DEP Stormwater Monitoring Report Forms contained in Attachment A. The sample site locations are identified on maps presented in Attachment B. The individual sample analysis results can be correlated with the mapped monitoring site locations by reference to the following table. The sampling data are presented in the same order as the site location identifiers listed below.

Site Location Identifier	Sample Number	Laboratory Number
2010-R-16 (Residential)	R16-10-14-10	AEL10006960
2010-R-20 (Residential)	R20-10-14-10	AEL10006961
2010-R-21 (Residential)	R21-10-14-10	AEL10006962
2010-R-22 (Residential)	R22-10-14-10	AEL10006963
2010-R-23 (Residential)	R23-10-14-10	AEL10006964
2010-R-24 (Residential)	R24-10-14-10	AEL10006965

All six of the 2010 storm water samples were collected during a rainstorm event that commenced, during the 23:00 hr, the evening of October 14, 2010. The rain event commenced earlier in the evening, consisting of light rain, with no measurable accumulations. The samples were collected from the identified outfalls between October 14th/23:55hrs and October 15th/00:51hrs, starting after it was judged, based on data transmitted from a local rainfall monitoring station, that sufficient flow would be discharging from the selected outfalls. The total rainfall produced by the storm was measured at 1.20 inches. The event was a qualifying event since the preceding rainfall event occurred on October 6, 2010.

The Town decided to focus its efforts on determining the discharge of Town Storm Water into Lake Garda. As part of this sampling we resampled outlet R-16, and included samples R-20 and R-24. Sample R-16 was previously sampled in 2008.

Outlets R-16 and R-20 collect runoff from a large dense development, consisting of lots sizes zoned for both R-9 (9,000sqft) and R-12 (12,000sqft). Both of these outlets collect road runoff

as well as runoff through lawn areas and wooded areas. The sample from R-16 was collected from the outlet pipe prior to discharge into Lake Garda. The outlet from R-20 discharges directly into the lake. However, during sampling, the outlet pipe was full submerged under the surface water of the lake and we had to draw a sample from a catch basin in the road, upstream of the outlet. Both samples indicated an elevated level of Escherichia Coliform. The area is serviced by public sewer and water. The Town has contacted the Farmington Valley Health District, whom performs testing at the Lake Garda swimming area. The area was tested a total of five (5) times in the summer of 2010, and all the reports indicate the swimming area is acceptable for recreation use.

Sample R-24 collects runoff from an area adjacent to samples R-16 and R-20, which is also made up of R-9 and R-12 zoning. This outlet mainly collects runoff from the adjacent roadway. The outlet discharges into a stream from the dam spillway of Lake Garda. Other than a slightly elevated level of Escherichia Coliform count, the results appeared to be within reason. This area is also serviced by public sewer and water.

Sample R-21 was taken from a newly constructed development accepted by the Town of Farmington. The Town approved the 16-lot subdivision in 2008, with lots sizes ranging from 13,000sqft - 20,000sqft. The development consists of two main roadways, Rosecliff and Blossom Way. At the time of sampling, 11 of the 16 lots were developed. The drainage area is composed of mainly the lots within the development, with some additional undeveloped commercial land and State of Connecticut Open Space Property to the north. The subdivision was designed to collect surface water from the lots, into the roadway, and discharge into a detention basin at the end of Rosecliff. The detention basin is designed to discharge any overflow into a nearby pond on the south side of Hyde Road. The pond eventually discharges to sample I-3 that was tested in 2005. Other than a slightly elevated level of an Escherichia Coliform count, the results appeared to be within reason. The area is serviced by public sewer and water.

Sample R-22 was taken from an outlet on the east side of Cornerstone Drive, that collects most of dense development made up of 113 of units. The development consists of a mixture of single family homes with lots sizes ranging from 13,000sqft - 20,000sqft, and a residential multi-family complex made up of duplex buildings. The outlet discharges into a wetland, prior to discharging into a pond on the north side of Route 6. The pond outlet discharges to the south side of Route 6 and where it eventually discharges to sample I-6 that was tested in 2006. Other than a slightly elevated level of Escherichia Coliform, the results appeared to be within reason. This area is also serviced by public sewer and water.

The final sample location was taken at R-23. This sample was taken from a mid-sized development consisting of an R-20 Zoning (20,000sqft). This development is upstream of previous sample R-11 that was collected in 2007. Due to the conditions, it proved difficult to obtain a sample at the outlet, therefore the sample was taken from a catch basin just upstream of the outlet. Other than a slightly elevated level of Escherichia Coliform, the results appeared to be within reason. This area is also serviced by public sewer and water.

Some of the elevated coliform levels in this round of samples could be attributed to a fairly dry period prior to testing. There could have been an accumulated amount of decaying debris in some of the catch basins within the individual drainage areas.

3. CERTIFICATION

I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with Section 22a-6 of the Connecticut General Statutes, pursuant to Section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute.

Russell M. Arnold, Jr., P.E. Director/Town Engineer

Department of Public Works

ATTACHMENT A

Stormwater Monitoring Report Forms



Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: Town of Farmington
Mailing Address: 1 Monteith Drive, Farmington CT 06032
Contact Person: Russell M. Jr. Arnold, P.E. Title: DPW Director Phone: 860-675-2305
Permit Registration #GSM000090

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): (2010) R16: Lat 41-44-31.283, Long 72-54-03.748			
Located on the west side of Lido Road, to the rear of #97 (outfall to lake)			
Please circle the appropriate area description: Industrial, Commercial, of Residential			
Receiving Water (name, basin): Farmington River 4300-20-1-L2			
Time of Start of Discharge: 23:00hrs (10/14/10)			
Date/Time Collected: October 15, 2010/00:30hrs Water Temperature: 53°F			
Person Collecting Sample: Bruce Cyr & Stephen Doyon			
Storm Magnitude (inches): 1.20 Storm Duration (hours): 9(approx)			
Date of Previous Storm Event: October 6, 2010			

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	SM19 4500H+B	6.4	Averill Environmental Lab #AEL10006960
Rain pH	SM19 4500H+B	5.0	Averill Environmental Lab #AEL10006960
Hardness	SM 2340 B	11.7 mg/L CaO3	Averill Environmental Lab #AEL10006960
Conductivity	SM19 2510B	20 micromhos/cm	Averill Environmental Lab #AEL10006960
Oil & Grease	EPA 1664A	<1.9 mg/L	Averill Environmental Lab #AEL10006960
COD	EPA 410.4	52 mg/L	Averill Environmental Lab #AEL10006960
Turbidity	EPA 180.1	11 NTU	Averill Environmental Lab #AEL10006960
TSS	SM19 2540D	18 mg/L	Averill Environmental Lab #AEL10006960
TP	SM19 4500PE	0.282 mg/L as P	Averill Environmental Lab #AEL10006960
Ammonia	SM19 4500NHD	0.19 mg/L	Averill Environmental Lab #AEL10006960
TKN	SM194500NH3F	<1.0 mg/L	Averill Environmental Lab #AEL10006960
NO ₃ +NO ₂	EPA 300.0	<0.46 mg/L	Averill Environmental Lab #AEL10006960
E. coli	SM 9222 B	>120,000 MPN/100 m	Averill Environmental Lab #AEL10006960

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:	Russell M. Arnold, Jr.J. P.E., Directo	or of Public Works/Town Engineer
Signature:	funcel M Alla	Date: December 20, 2010



Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town:	Town of Farmington
1	Address: 1 Monteith Drive, Farmington CT 06032
Contact	Person: Russell M. Jr. Arnold, P.E. Title: DPW Director Phone: 860-675-2305
Permit	Registration #GSM000090

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): (2010) R20: Lat 41-44-25.50, Long 72-54-06.27			
Taken from the CB in front of #71 Lido Road			
Please circle the appropriate area description: Industrial, Commercial, of Residential			
Receiving Water (name, basin): Farmington River 4300-20-1-L2			
Time of Start of Discharge: 23:00hrs (10/14/10)			
Date/Time Collected: October 15, 2010/00:43hrs Water Temperature: 53°F			
Person Collecting Sample: Bruce Cyr & Stephen Doyon			
Storm Magnitude (inches): 1.20 Storm Duration (hours): 9(approx)			
Date of Previous Storm Event: October 6, 2010			

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	SM19 4500H+B	6.3	Averill Environmental Lab #AEL10006961
Rain pH	SM19 4500H+B	5.0	Averill Environmental Lab #AEL10006961
Hardness	SM 2340 B	2.8 mg/L CaO3	Averill Environmental Lab #AEL10006961
Conductivity	SM19 2510B	10 micromhos/cm	Averill Environmental Lab #AEL10006961
Oil & Grease	EPA 1664A	<2.0 mg/L	Averill Environmental Lab #AEL10006961
COD	EPA 410.4	43 mg/L	Averill Environmental Lab #AEL10006961
Turbidity	EPA 180.1	3.1 NTU	Averill Environmental Lab #AEL10006961
TSS	SM19 2540D	15.2 mg/L	Averill Environmental Lab #AEL10006961
TP	SM19 4500PE	0.079 mg/L as P	Averill Environmental Lab #AEL10006961
Ammonia	SM19 4500NHD	0.11 mg/L	Averill Environmental Lab #AEL10006961
TKN	SM194500NH3F	<1.0 mg/L	Averill Environmental Lab #AEL10006961
NO ₃ +NO ₂	EPA 300.0	<0.46 mg/L	Averill Environmental Lab #AEL10006961
E. coli	SM 9222 B	860 MPN/100 mL	Averill Environmental Lab #AEL10006961

	MS4 General Permit. The info	ere prepared under my direction or supervision in ormation submitted is, to the best of my knowledge
Authorized Official:		Director of Public Works/Town Engineer
Signature:	funcil M Thy	Date: December 20, 2010



Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town:	Town of Farmington
Mailing Address: 1	Monteith Drive, Farmington CT 06032
Contact Person: Ru	ssell M. Jr. Arnold, P.E. Title: DPW Director Phone: 860-675-2305
Permit Registration	#GSM000090

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): (2010) R21: Lat 41-42-05.12, Long 72-51-30.55			
Taken at the outlet at the end of Rosecliff, into the Detention Basin.			
Please circle the appropriate area description: Industrial, Commercial, of Residential			
Receiving Water (name, basin): Pequabuck River 4315-13-2-L2			
Time of Start of Discharge: 23:55hrs (10/14/10)			
Date/Time Collected: October 14, 2010/23:55hrs Water Temperature: 53°F			
Person Collecting Sample: Bruce Cyr & Stephen Doyon			
Storm Magnitude (inches): 1.20 Storm Duration (hours): 9(approx)			
Date of Previous Storm Event: October 6, 2010			

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	SM19 4500H+B	6.6	Averill Environmental Lab #AEL10006961
Rain pH	SM19 4500H+B	5.0	Averill Environmental Lab #AEL10006961
Hardness	SM 2340 B	3.4 mg/L CaO3	Averill Environmental Lab #AEL10006961
Conductivity	SM19 2510B	13 micromhos/cm	Averill Environmental Lab #AEL10006961
Oil & Grease	EPA 1664A	<1.7 mg/L	Averill Environmental Lab #AEL10006961
COD	EPA 410.4	<20 mg/L	Averill Environmental Lab #AEL10006961
Turbidity	EPA 180.1	2.2 NTU	Averill Environmental Lab #AEL10006961
TSS	SM19 2540D	6.8 mg/L	Averill Environmental Lab #AEL10006961
TP	SM19 4500PE	0.061 mg/L as P	Averill Environmental Lab #AEL10006961
Ammonia	SM19 4500NHD	0.24 mg/L	Averill Environmental Lab #AEL10006961
TKN	SM194500NH3F	<1.0 mg/L	Averill Environmental Lab #AEL10006961
NO ₃ +NO ₂	EPA 300.0	<0.46 mg/L	Averill Environmental Lab #AEL10006961
E. coli	SM 9222 B	1,100 MPN/100 mL	Averill Environmental Lab #AEL10006961

	reported on this document were prepared under my direction or supervision in AS4 General Permit. The information submitted is, to the best of my knowledge ate and complete.
Authorized Official:	Russell M. Arnold, Jr., P.E., Director of Public Works/Town Engineer
Signature:	Puncil M Affi Date: December 20, 2010



Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town:Town of Farmington	
Mailing Address: 1 Monteith Drive, Farmington CT 06032	
Contact Person: Russell M. Jr. Arnold, P.E. Title: DPW Director Phone: 860-675-2305	
Permit Registration #GSM000090	

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): (2010) R22: Lat 41-42-30.44, Long 72-52-19.04		
Taken at the outlet along side of Cornerstone Drive, in the rear of #17 Wintonbury Drive		
Please circle the appropriate area description: Industrial, Commercial, of Residential		
Receiving Water (name, basin): Pequabuck River 4315-13-1		
Time of Start of Discharge: 23:55hrs (10/14/10)		
Date/Time Collected: October 15, 2010/00:05hrs Water Temperature: 53°F		
Person Collecting Sample: Bruce Cyr & Stephen Doyon		
Storm Magnitude (inches): 1.20 Storm Duration (hours): 9(approx)		
Date of Previous Storm Event: October 6, 2010		

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	SM19 4500H+B	6.5	Averill Environmental Lab #AEL10006963
Rain pH	SM19 4500H+B	5.0	Averill Environmental Lab #AEL10006963
Hardness	SM 2340 B	5.4 mg/L CaO3	Averill Environmental Lab #AEL10006963
Conductivity	SM19 2510B	22 micromhos/cm	Averill Environmental Lab #AEL10006963
Oil & Grease	EPA 1664A	<1.8 mg/L	Averill Environmental Lab #AEL10006963
COD	EPA 410.4	<20 mg/L	Averill Environmental Lab #AEL10006963
Turbidity	EPA 180.1	1.6 NTU	Averill Environmental Lab #AEL10006963
TSS	SM19 2540D	5.8 mg/L	Averill Environmental Lab #AEL10006963
TP	SM19 4500PE	0.097 mg/L as P	Averill Environmental Lab #AEL10006963
Ammonia	SM19 4500NHD	0.17 mg/L	Averill Environmental Lab #AEL10006963
TKN	SM194500NH3F	1.1 mg/L	Averill Environmental Lab #AEL10006963
NO ₃ +NO ₂	EPA 300.0	<0.46 mg/L	Averill Environmental Lab #AEL10006963
E. coli	SM 9222 B	1,800 MPN/100 mL	Averill Environmental Lab #AEL10006963

I certify that the data accordance with the and belief, true, accur	MS4 General Permit. The inform	prepared under my direction or supervision in ation submitted is, to the best of my knowledge
Authorized Official:	Russell M. Arnold, Jr., P.E., Dir	ector of Public Works/Town Engineer
Signature:	funcil an I the	Date: <u>December 20, 2010</u>



Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town:	Town of Farmington
Mailing Address: _	Monteith Drive, Farmington CT 06032
Contact Person: R	ussell M. Jr. Arnold, P.E. Title: DPW Director Phone: 860-675-2305
Permit Registration	# <u>GSM000090</u>

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): (2010) R23: Lat 41-42-00.75, Long 72-52-29.04		
Taken from the CB in front of #26 Wells Drive		
Please circle the appropriate area description: Industrial, Commercial, of Residential		
Receiving Water (name, basin): Pequabuck River 4315-13-2-L2		
Time of Start of Discharge: 23:55hrs (10/14/10)		
Date/Time Collected: October 15, 2010/00:10hrs Water Temperature: 53°F		
Person Collecting Sample: Bruce Cyr & Stephen Doyon		
Storm Magnitude (inches): 1.20 Storm Duration (hours): 9(approx)		
Date of Previous Storm Event: October 6, 2010		

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	SM19 4500H+B	6.6	Averill Environmental Lab #AEL10006964
Rain pH	SM19 4500H+B	5.0	Averill Environmental Lab #AEL10006964
Hardness	SM 2340 B	5.6 mg/L CaO3	Averill Environmental Lab #AEL10006964
Conductivity	SM19 2510B	29 micromhos/cm	Averill Environmental Lab #AEL10006964
Oil & Grease	EPA 1664A	<1.9 mg/L	Averill Environmental Lab #AEL10006964
COD	EPA 410.4	<20 mg/L	Averill Environmental Lab #AEL10006964
Turbidity	EPA 180.1	2.4 NTU	Averill Environmental Lab #AEL10006964
TSS	SM19 2540D	17.6 mg/L	Averill Environmental Lab #AEL10006964
TP	SM19 4500PE	0.120 mg/L as P	Averill Environmental Lab #AEL10006964
Ammonia	SM19 4500NHD	0.16 mg/L	Averill Environmental Lab #AEL10006964
TKN	SM194500NH3F	<1.0 mg/L	Averill Environmental Lab #AEL10006964
NO ₃ +NO ₂	EPA 300.0	<0.46 mg/L	Averill Environmental Lab #AEL10006964
E. coli	SM 9222 B	1,200 MPN/100 mL	Averill Environmental Lab #AEL10006964

I certify that the dat accordance with the and belief, true, accu	MS4 General Permit. The inform	prepared under my direction or supervision in ation submitted is, to the best of my knowledge
Authorized Official:	Russell M. Arnold, Jr., P.E., Dir	rector of Public Works/Town Engineer
Signature:	funcil on A WA	Date: December 20, 2010



Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town:	Town of Farmington
Mailing Address:	1 Monteith Drive, Farmington CT 06032
Contact Person: _	Russell M. Jr. Arnold, P.E. Title: DPW Director Phone: 860-675-2305
Permit Registration	on # <u>GSM000090</u>

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): (2010) R24: Lat 41-44-42.82, Long 72-54-04.61			
Taken from the outlet across from #106 Burlington Road			
Please circle the appropriate area description: Industrial, Commercial, of Residential			
Receiving Water (name, basin): Farmington River 4300-20-1			
Time of Start of Discharge: 23:55hrs (10/14/10)			
Date/Time Collected: October 15, 2010/00:51hrs Water Temperature: 53°F			
Person Collecting Sample: Bruce Cyr & Stephen Doyon			
Storm Magnitude (inches): 1.20 Storm Duration (hours): 9(approx)			
Date of Previous Storm Event: October 6, 2010			

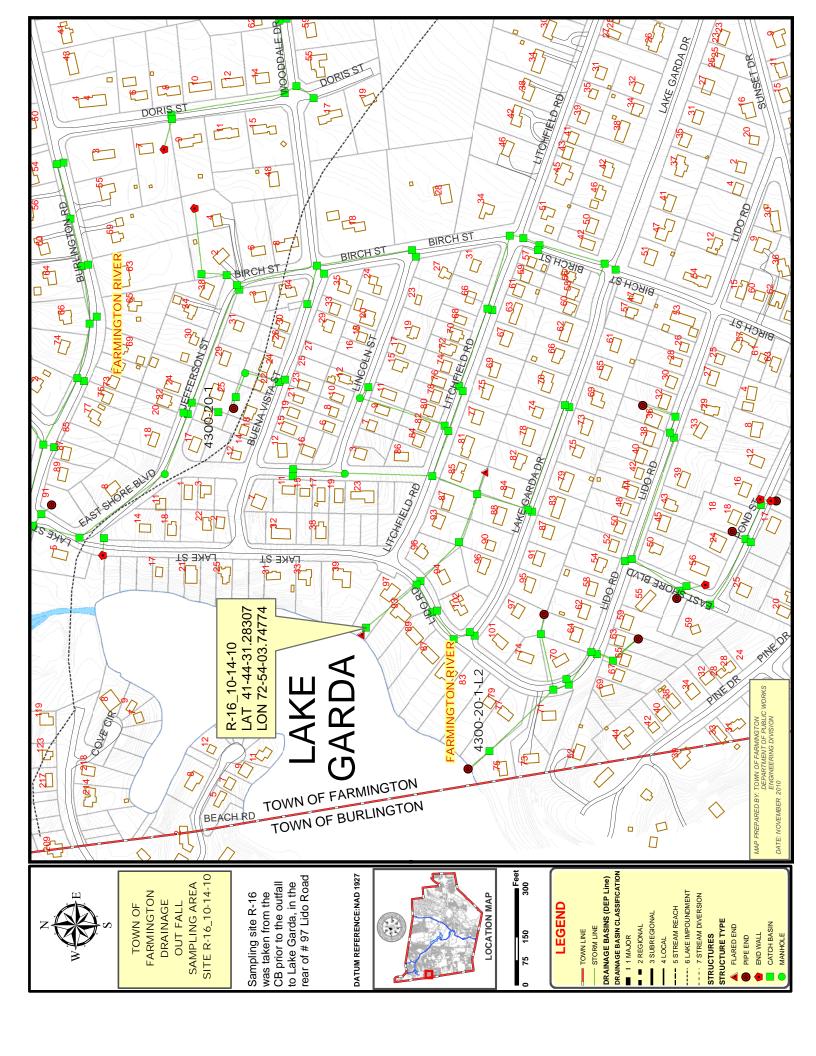
MONITORING RESULTS

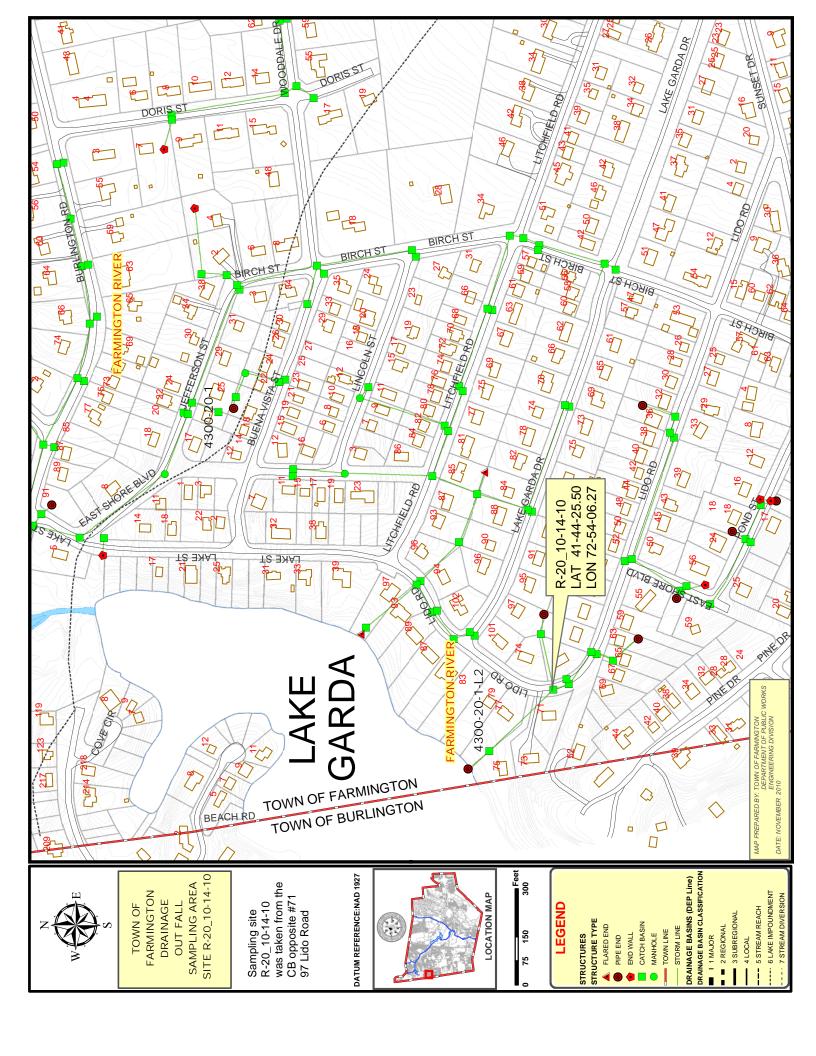
Parameter	Method	Results (units)	Laboratory
Sample pH	SM19 4500H+B	6.3	Averill Environmental Lab #AEL10006965
Rain pH	SM19 4500H+B	5.0	Averill Environmental Lab #AEL10006965
Hardness	SM 2340 B	2.9 mg/L CaO3	Averill Environmental Lab #AEL10006965
Conductivity	SM19 2510B	15 micromhos/cm	Averill Environmental Lab #AEL10006965
Oil & Grease	EPA 1664A	<1.8 mg/L	Averill Environmental Lab #AEL10006965
COD	EPA 410.4	36 mg/L	Averill Environmental Lab #AEL10006965
Turbidity	EPA 180.1	3.9 NTU	Averill Environmental Lab #AEL10006965
TSS	SM19 2540D	9.2 mg/L	Averill Environmental Lab #AEL10006965
TP	SM19 4500PE	0.143 mg/L as P	Averill Environmental Lab #AEL10006965
Ammonia	SM19 4500NHD	0.15 mg/L	Averill Environmental Lab #AEL10006965
TKN	SM194500NH3F	<1.0 mg/L	Averill Environmental Lab #AEL10006965
NO ₃ +NO ₂	EPA 300.0	<0.46 mg/L	Averill Environmental Lab #AEL10006965
E. coli	SM 9222 B	4,700 MPN/100 mL	Averill Environmental Lab #AEL10006965

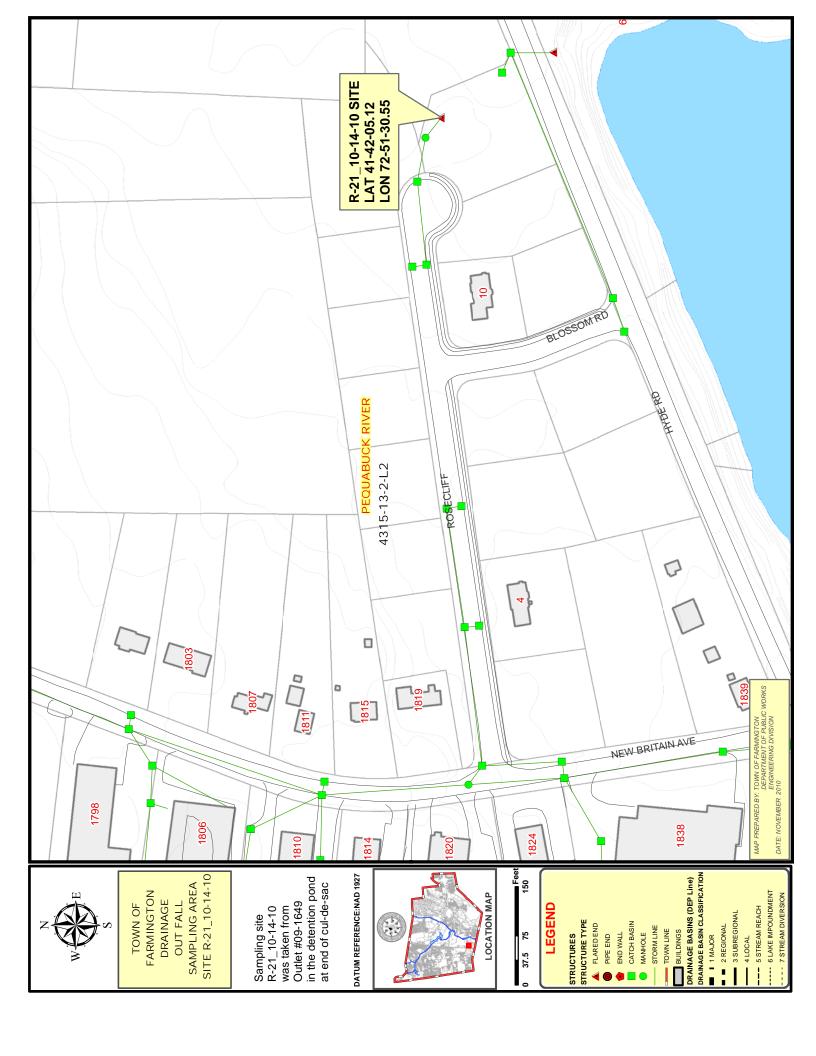
I certify that the data accordance with the and belief, true, accur	MS4 General Permit. The info	ere prepared under my direction or supervision in rmation submitted is, to the best of my knowledge
Authorized Official:	Russell M. Arnold, Jr.I P.E.,	Director of Public Works/Town Engineer
Signature:	funell on A Alfr	Date: December 20, 2010

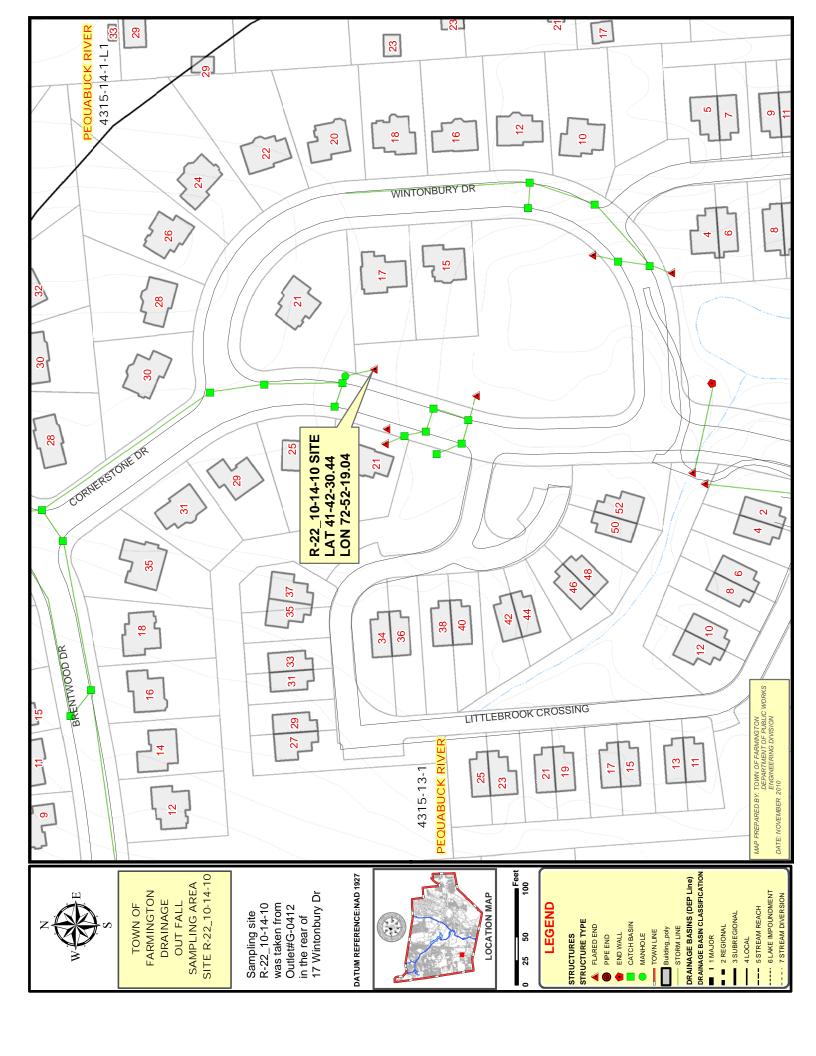
ATTACHMENT B

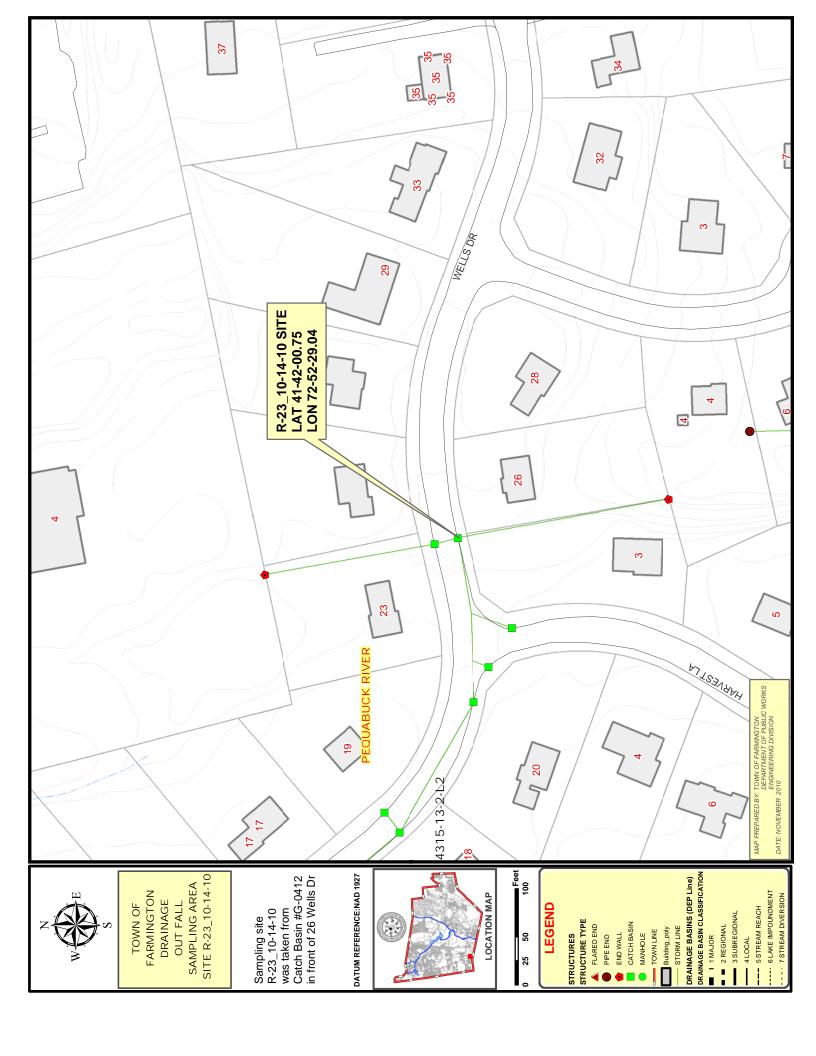
Monitoring Site Location Mapping

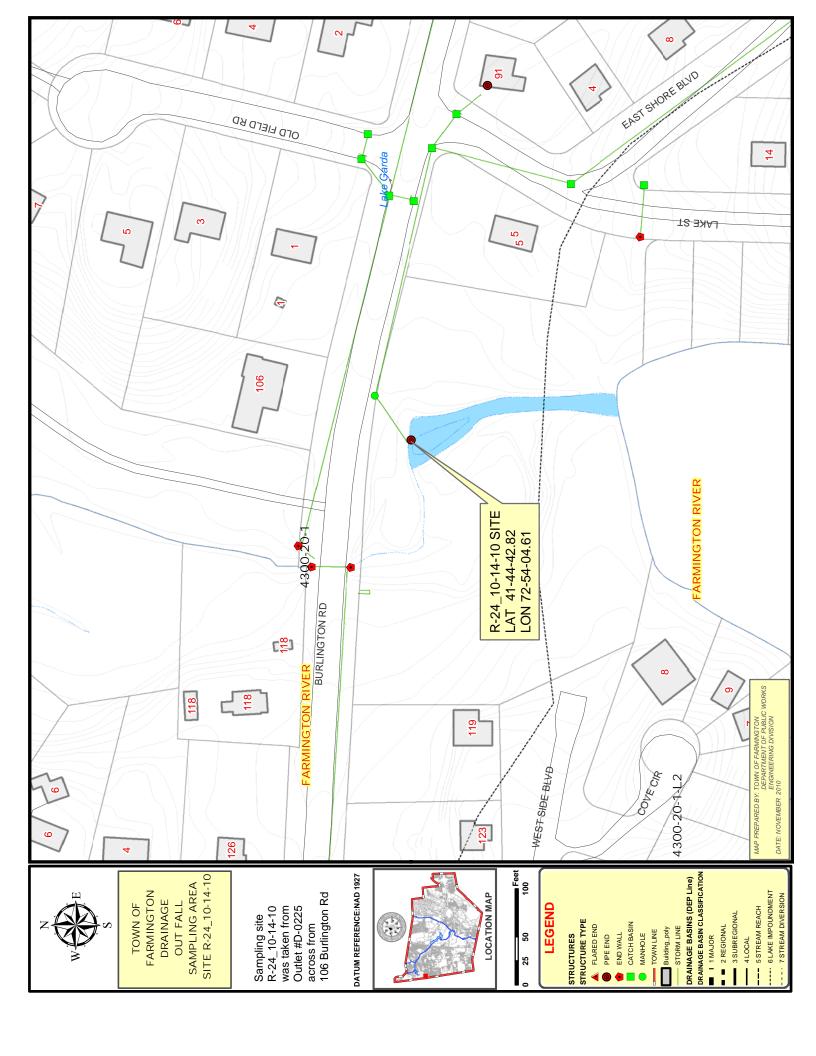


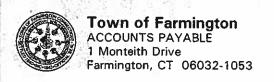












Check Date 12/15/2010

Check Number 00032581

5<u>1-701</u>0 2111

VOID IF NOT CASHED 60 DAYS FROM DATE OF ISSUE

\$187.50

Pay One Hundred Eighty Seven dollars and 50 cents ******

To The Order Of 00032581

DEPT OF ENVIRONMENTAL PROTECTION 79 ELM STREET HARTFORD, CT 06106-5127

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Part B - General Permit Registration Form for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4)

Please complete this form in accordance with the general permit (DEP-PED-GP-021) in order to ensure the proper handling of your registration. Print or type unless otherwise noted.

Application No		
Permit No.		
Town I.D.		

Part I: Registrant Information

1.	Name of Town/City: Farmington			
	Name of Chief Elected Official (CEO) or Principal Executive	Officer (PEO):		
	Kathleen Eagen	Title: Town Ma	nager	
	Mailing Address: 1 Monteith Drive			
	City/Town: Farmington	State: CT	Zip Code: 06032-1053	
	Business Phone: 675-2350	ext.	Fax: 673-8233	
	Contact Person: Russell M. Arnold, Jr.	Title: Director	of Public Works	
	Check here if there are adjacent towns or other entities with of your Stormwater Management Plan for a portion of your permit). If so, label and attach additional sheet(s) with the r	MS4 (See Sectio	n 6(b)(3) of the general	
2.	List primary contact for departmental correspondence and in	quiries, if differe	nt than the CEO/PEO	
	Name: Russell M. Arnold, Jr., PE Director of Public World	s/Town Engine	er	
	Mailing Address: 1 Monteith Drive			
	City/Town: Farmington	State: CT	Zip Code: 06032-1053	
	Business Phone: 675-2305	ext.	Fax: 675-2319	
	E-Mail: arnoldr@farmington-ct.org			
	Contact Person: Russell M. Arnold, Jr,. P.E.	Title: Dir. PW/T	Town Engineer	
3.	List any engineer(s) or other consultant(s) employed or retain	ned to assist in p	preparing the registration.	
	☐ Check here if additional sheets are necessary, and label	el and attach the	m to this sheet.	
	Name:			
	Mailing Address:			
	City/Town:	State:	Zip Code:	
	Business Phone:	ext.	Fax:	
	E-Mail:			
	Contact Person:	Title:		
	Service Provided:			
_				_

Part II: Site Information

1.		vity included in your Stormwater Management Plan that would adversely affect properties for listing in the National Register of Historic Places?
		rant must be in compliance with requirements of the National Historic Preservation Act nate with the appropriate State Historic Preservation Officer to avoid or minimize impacts sary activities.
2.		vity included in your Stormwater Management Plan that is located within the coastal ineated on DEP approved coastal boundary maps?
		application is for a new authorization or for a modification of an existing permit, you must all Consistency Review Form (DEP-APP-004) with your application as Attachment A.
	For forms or ass	sistance, please call the Permit Assistance Office at 860-424-3003.
3.	identified as a h	vity included in your Stormwater Management Plan that is located within an area abitat for endangered, threatened or special concern species as identified on the "State ted Species and Natural Communities Map"?
	☐ Yes ⊠	No Date of Map: 2003
		and submit a Connecticut Natural Diversity Data Base (CT NDDB) Review Request Form to the address specified on the form.
	including copies information which	g this permit application, please include copies of any correspondence to the NDDB, of the completed CT NDDB Review Request Form, any field surveys, and any other that endangered or threatened species may or may not be ea of your existing or proposed permitted activity, as Attachment B.
		ey been conducted to determine the presence of any endangered, threatened or special ?
	Biologist's Name	e:
	Address:	
	and submit a co	py of the field survey with your application as an Attachment as specified above.
Pleas this a part (se check the attac application form. V	ng Documents chments submitted as verification that all applicable attachments have been submitted with When submitting any supporting documents, please label the documents as indicated in this A, etc.) and be sure to include the applicant's name as indicated on the Permit Application
	Attachment A:	Coastal Consistency Review Form: Activities within the state's coastal area, which includes the coastal boundary, must be consistent with the Connecticut Coastal Management Act (Sections 22a-90 through 22a-112 CGS). You may be required to complete a Coastal Consistency Review Form (DEP-APP-004) to demonstrate that the activity is consistent with the standards and policies of the Connecticut Coastal Management Act.
	Attachment B:	CT NDDB Information: Submit copies of any correspondence provided to or received from the CT NDDB program, including a copy of a completed <i>CT NDDB Request Form</i> (DEP-APP-007) and copies of any field surveys previously conducted to determine the presence of any endangered, threatened or special concern species.

Part IV: Registrant Certification

The registrant and the individual(s) responsible for actually preparing the registration must sign this part. A registration will be considered incomplete unless all required signatures are provided.

"I have personally examined and am familiar with the informatic attachments thereto, and I certify that, based on reasonable in individuals responsible for obtaining the information, the submi- to the best of my knowledge and belief.	vestigation, including my inquiry of those
I certify that this permit registration is on complete and accurate without alteration of the text.	e forms as prescribed by the Commissioner
I also certify under penalty of law that I have read and understathe Discharge of Stormwater from a Municipal Separate Storm that all requirements for authorization under the general permit ensure that all terms and conditions of this general permit will oby this general permit for the municipality. I am aware that there information, including the possibility of fine and imprisonment for	Sewer System issued on January 9, 2004 and are met and that a system is in place to continue to be met for all discharges authorized e are significant penalties for submitting false
	Original Signed - 7/8/2004
Signature of CEO/PEO or designee [as specified in RCSA Section 22a-430-3(b)(2)(B)]	Date
John H. McGrane	Director of Public Works
Name of CEO/PEO or designee (print or type)	Title (if applicable)
Signature of Preparer (if different than above)	Date
Name of Preparer (print or type)	Title (if applicable)
Check here if additional signatures are necessary. If so, please reproduce this sheet and attach signed copi	es to this sheet.

Note: Please submit the Registration Form and all Supporting Documents to:

STORMWATER PERMIT COORDINATOR BUREAU OF WATER MANAGEMENT DEPARTMENT OF ENVIRONMENTAL PROTECTION 79 ELM STREET HARTFORD, CT 06106-5127

Rev. 05/11/04

Part V: Best Management Practice List (BMP)

BMP		Responsible	
2	Public Education	Dept. or Person	Measurable Goal
1-1	Publish article in the Town Letter once per year	Planning	Article published
1-2	Obtain educational videos for Library distribution	Planning	Videos available
1-3	Air educational videos in schools and on Public A	Planning	Videos aired
1-4	Coordinate with others: DEP, DOT, FRWA, NEMO, CCRPA, PRWA	Planning	Annual summary/report
1-5			
1-6			
1-7			
1-8			
1-9			
1-10			
BMP	Public Participation	Responsible Dept. or Person	Measurable Goal
2-1	2-1 Develop public involvement/participation program	Planning	Prepare yearly schedule
2-2	2-2 Comply with state and local public notice and FOI requirements	Public Works	Maintain compliance
2-3	2-3 Hold meetings/workshops to educate and involve the public	Planning	Hold meetings/workshops
2-4	Organize/implement community clean-up days: Town, FRWA	Planning	Hold community clean-ups
2-5			
2-6			63
2-7			
2-8			
2-9			
2-10			
BMP ID	Illicit Discharge Detection & Elimination	Responsible Dept. or Person	Measurable Goal
3-1	Map outfalls greater than 15" in Urbanized Area (Year 2)	Engineering	Mapping completed
3-2	Map outfalls greater than 15" in town-wide (Year 3)	Engineering	Mapping completed
3-3	3-3 Map outfalls greater than 12" in Urbanized Area (Year 4)	Engineering	Mapping completed
3-4	3-4 Develop program to detect and eliminate illicit discharges	Public Works	Program implemention
3-5	3-5 Develop illicit discharge ordinance	Public Works	Determine need
3-6			
3-7			
3-8			
3-9			
3-10			

ID Col	Construction Site Runoff Control	Responsible Dept. or Person	Measurable Goal
4-1 Rev	Review land use regulations to meet requirements of MS4 permit and E&S Guidelines	Planning	Review completed
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4-10			
3MP ID Pos	Post Construction Runoff Control	Responsible Dept. or Person	Measurable Goal
5-1 Rev	Review land use regulations to meet requirements of MS4 permit and E&S Guidelines	Planning	Review completed
5-2 Dev	Develop post-construction ordinance or regulation	Planning	Determine need
5-3 Dev	5-3 Develop and implement post-construction BMP strategy	Planning	Program implemention
5-4 Dev	5-4 Develop program to ensure long-term operation and maintenance of BMPs	Planning	Program implemention
5-5			
9-9			
2-7			
2-8			
6-9			
5-10			
SMP		Responsible	
	Sanda Barrella Barrel	Dept. of refsoil	Measurable Goal
	Develop training program for municipal employees	Public Works	Program implemention
6-2 Swe	Sweep streets at least once a year as soon as possible after snowmelt	Highway	Program implemented
6-3 Eva	Evaluate Urbanized Area for possible sweeping more than once a year	Public Works	Evaluation completed
6-4 Dev	Develop program to evaluate and clean stormwater structures at least once a year	Public Works	Program implementation
6-5 Dev	Develop program to evaluate and prioritize system for upgrade and/or repair	Public Works	Program implementation
\rightarrow			
2-9			
8-9			
6-9			
6-10			
		Responsible	:
ID MOI	Monitoring	Dept. or Person	Measurable Goal
	Sample 6 outfalls once a year	Public Works	Completion
S-2 Aite	Alternate sampling plan	Public Works	Consideration completed

BMP

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BMP

BMP

Part VIA: Best Management Practice Timeline

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Part VIB: Sample Best Management Practice Timeline

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