THE TOWN OF FARMINGTON

INCORPORATED 1645

TOWN HALL
1 MONTEITH DRIVE
FARMINGTON, CONNECTICUT 06032-1053

INFORMATION (860) 675-2300
FAX (860) 675-7140
"TOWN TALK" (860) 675-2301

February 15, 2008

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 2007**
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 2007 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)*. We have included in Attachment A an Amended Part B Registration Form as part of the report which effectively updates the data included in Part VIA of the original Part B Registration Form that was officially filed by the town on July 8, 2004. As noted previously, I am currently the primary contact for departmental correspondence and inquires. The stormwater monitoring data and sample locations for 2007 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.

I have also enclosed the municipal plan review fee in the amount of $187.50 as required by subsection 6(i)(2)(i) of the *MS4 General Permit*.

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.E.
Director of Public Works
Town of Farmington

cc: Salvatore A. Palaia, P.E., LEA

enclosures

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Sincerely,

Russell M. Arnold, Jr., P.E.
Director of Public Works
Town of Farmington

cc: Salvatore A. Palaia, P.E., LEA

enclosures

2007 ANNUAL REPORT

Municipal Separate Storm Sewer System
Farmington, Connecticut

January 2008

Prepared for

TOWN OF FARMINGTON
1 Monteith Drive
Farmington, Connecticut 06032

Prepared by

LOUREIRO ENGINEERING ASSOCIATES, INC.
100 Northwest Drive
Plainville, Connecticut, 06062

An Employee Owned Company

Comm. No. 28FA406.005

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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 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.

Much of the information that must be included in the annual report is being provided by updating the Part B registration form to reflect the current status of the program implementation, especially with respect to the list of Best Management Practices (BMPs) enumerated in Part V of the original Part B registration form. The updated Part B registration form can be found in Attachment A. The data in the updated Part B is supplemented by narrative text in Section 2 of this report.

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

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 quarterly 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 2007 were again limited to notifications. The 10th Annual Town Wide Clean-up held on April 28th was noticed in the Winter issue along with the spring bulky waste collection program held between April 2nd and April 6th. These items were noticed again in the spring issue along with notice of the Household Hazardous Waste Collection Day held on April 21st and the schedule for spring street sweeping. The plan to publish a separate article covering the municipal stormwater program during the fall of 2007 has been deferred again due to the illness of the individual assigned to author the article. It has been rescheduled to the summer of 2008. However, a major article was published by a commercial newspaper, the Farmington Life, in December 2007 describing the modifications that have been implemented to eliminate the use of sand for skid control on public roadways.

A number of brochures on stormwater management published by the Environmental Protection Agency (EPA) were purchased and distributed to local schools and libraries, and three copies of the EPA video *After the Storm* have been distributed to town libraries for resident use. Three copies of the video *After the Storm* have also been distributed for use in public schools and the video has been aired by teachers in some public school classrooms. The plan to air the video *After the Storm* on Public Access TV has not yet been realized.

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. As noted below, a workshop developed by the NEMO staff was conducted during the spring of 2006. The workshop was publicized by the distribution of a flyer.

The CCRPA is taking the lead in the development of a Pequabuck River Watershed Management Plan. 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 staffs of the CCRPA, the FRWA and the PRWA were the editors who compiled the

watershed report. The plan was presented before the Farmington Conservation Commission on September 5, 2006 and the Town Council on December 12, 2006. 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

A yearly schedule for the implementation of a public participation program was developed by the Planning Division. The schedule prepared during 2007 covered all of the pubic education and public participation activities implemented during 2007.

The Town of Farmington, the Farmington River Watershed Association and the NEMO staff jointly conducted a public educational workshop on pollution caused by stormwater runoff at the Farmington Public Library on May 23, 2006. The program stressed the means that can be employed to reduce pollution impacts.

During the spring of 2007, the Annual Farmington Clean-up was conducted; and the Conservation Commission again sponsored a Household Hazardous Waste Collection Program jointly with The Metropolitan District Commission. As noted above, the public was made aware of these activities through the *Farmington Town Letter*.

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 attached amended Part B registration form has been adjusted to show that the mapping of outfalls greater than 12 inches owned or maintained by the Town of Farmington has been completed in Urbanized Areas and the period beyond the required completion date has been amended to show "work in progress" in recognition of the fact that 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 still being considered.

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.

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 addition, an inventory of privately owned storm sewers is being developed in conjunction with the mapping of all storm sewers within the town. An evaluation of the need for periodic reports being filed with town officials by the private owners of such systems has been initiated.

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. There has, however, been a major change in the administration and implementation of the skid control program. The use of a sand and salt mixture has been suspended in favor of a commercial salt and magnesium mixture. This operational change in the skid control program is expected to significantly 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 skid control sand from roadways. The DOT adopted a similar program in 2005 opting to use a liquid mixture in lieu of sand and salt.

The need to sweep paved streets more than once a year is still being considered as a function of the development of the Farmington Stormwater Management Plan that is scheduled to be completed before January 9, 2009.

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. Those 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 2007. The analytical results are presented on the laboratory examination reports and on the DEP Stormwater Monitoring Report Forms contained in Attachment B. The sample site locations are identified on maps presented in Attachment C. 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
2007-R-6 (Residential)	R6-11-6-07	AEL07008573
2007-R-7 (Residential)	R7-11-6-07	AEL07008574
2007-R-8 (Residential)	R8-11-6-07	AEL07008575
2007-R-9 (Residential)	R9-11-6-07	AEL07008576
2007-R-10 (Residential)	R10-11-6-07	AEL07008577
2007-R-11 (Residential)	R11-11-6-07	AEL07008578

All of the sampling sites selected in 2007 were located in residential areas where the storm water flow of interest crosses town boundaries. This was done intentionally to evaluate storm water discharges which, if found to be problematic, would necessitate inter-municipal cooperation. All six of the 2007 storm water samples were collected during a rain storm event that commenced at approximately 5:00 AM during the morning of November 6, 2007. The samples were collected from the identified outfalls between 7:04 AM and 8:19 AM, starting about two hours after it was judged, based on data transmitted from a local rainfall monitoring station, that sufficient flow would probably be discharging from the selected outfalls. The total rainfall produced by the storm was measured at 0.35 inches. The event was a qualifying event since the preceding rainfall event occurred on October 12, 2007.

In general it may be stated that the analytical results obtained from these six sample locations were well within the range of the average pollutant concentrations for the majority of the parameters listed in the 2004 Stormwater Quality Manual for urban stormwater runoff. In fact, except for relatively high specific conductivity and hardness in the samples collected at two locations, and elevated levels of E. Coli at some locations, the analysis of the collected samples generally showed relatively low levels of pollutants. Some of the samples, including the two that showed relatively high specific conductivity were collected from watercourses rather than outfalls following protocol designed to implement an alternative sampling plan that was approved by the DEP Stormwater Permit Coordinator. The following is a brief assessment of the stormwater sample analysis results derived from the collected samples. It should be noted that the fact that none of the samples were collected from the commercial or industrial land use areas of the town as required under the *MS4 General Permit* was verbally preauthorized by the DEP Stormwater Permit Coordinator at a DEP sponsored public meeting.

Sample R-6 was collected from a storm water outfall that serves storm sewers located predominately in the Town of Farmington, but the discharge outfall is located with the City of Bristol. It is the only discharge from Farmington storm sewers that flows into the Copper Mine Brook watershed which is tributary to the Pequabuck River. No significant problems were identified by the analysis of the collected sample other that elevated E. coli. Since active springs that would attract wildlife in the area are evident, the elevated levels of E. coli are not considered unusual. The total suspended solids that was measured was very low.

Samples R-7 and R-8 were collected from a small stream that flows from a developed area of the City of Bristol into a developed area within the Town of Farmington. The stream is a minor tributary of Scott Swamp Brook lying immediately north of Route 6. There are two storm sewer outfalls within Farmington that discharge to the stream, one immediately downstream of the sampling point R-7, and one immediately upstream of the sampling point R-8. The sampling

sites were chosen to evaluate the level of pollutants that could be entering the stream within the City of Bristol and to evaluate the contribution of pollutants that could be entering the stream within Farmington from the two storm sewer outfalls that discharge between the sampling points. The selection of the sampling points was the first instance of implementation of the approved alternative sampling program that was submitted with the 2006 Annual Report. E. coli was elevated, but again since the sampling points were from a stream flowing through a swampy habitat area, not of significant concern. Both samples reflected elevated specific conductivity and hardness. The hardness is derived primarily from calcium and it is probably reflective of the use of deicing chemicals upstream within the City of Bristol. It should be noted that much of the drainage area associated with the Farmington storm sewer outfalls between the sampling points is erroneously identified as being within the Copper Mine Brook watershed in the Gazetteer of Drainage Areas in Connecticut.

Sampling points R-9 and R-10 were selected to measure potential contaminants in storm water flowing from Farmington outfalls in the Trout Brook watershed tributary to Hamlin Pond on the Quinnipiac River. The sample identified as R-9 was intended to evaluate the discharge from the southernmost of the two municipal storm sewer systems within Farmington that discharge to the Trout Brook watershed. The sample was collected from a catch basin since the outfall was temporarily inaccessible. The sample identified as R-10 was intended to evaluate the discharge from the other storm sewer system which ends in an outfall at the east end of Trumbull Lane. Unfortunately, due to a communication problem, the sampling crew collected the sample from a manhole upstream of the R-9 sampling location thinking that the objective was to evaluate connections to the southern system that were located beyond the town line. The sample analysis results did not reveal any significant cause for concern.

The sample collected from sampling point R-11 was another instance of choosing to use the approved alternative sampling program to evaluate a discharge. The sampling point was at the outfall of a small pond which is the collection point to which most of the storm water discharges from the privately owned storm sewers serving the Farmington Chase development off of Plainville Road (Route 177) south of Route 6 ultimately drain. Storm water discharging from the pond enters the Town of Plainville before any other storm sewers discharges enter the stream. Since the pond was not discharging before the storm occurred, no sample was collected to reflect pre-storm conditions. The sample analysis results did not reveal any significant cause for concern about this discharge into a neighboring municipality. E. coli was relatively high as expected and suspended solids were quite low.

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.
Director of Public Works

ATTACHMENT A

Amended Part B Registration Form

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.

DEP USE ONLY
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 Manager**

   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 which you will be coordinating implementation of your Stormwater Management Plan for a portion of your MS4 (See Section 6(b)(3) of the general permit). If so, label and attach additional sheet(s) with the required information as supplied above.

2. List primary contact for departmental correspondence and inquiries, if different than the CEO/PEO

   Name: **Russell M. Arnold, Jr., Director of Public Works & Dev. Ser.**

   Mailing Address: **1 Monteith Drive**

   City/Town: **Farmington** State: **CT** Zip Code: **06032-1053**

   Business Phone: **675-2330** ext. Fax: **675-2319**

   E-Mail: **ArnoldR@Farmington-CT.org**

   Contact Person: **Russell M. Arnold, Jr.** Title: **Director of Public Works**

3. List any engineer(s) or other consultant(s) employed or retained to assist in preparing the registration.

   ☐ Check here if additional sheets are necessary, and label and attach them to this sheet.

   Name: **Loureiro Engineering Associates, Inc.**

   Mailing Address: **100 Northwest Drive**

   City/Town: **Plainville** State: **CT** Zip Code: **06062**

   Business Phone: **747-6181** ext. Fax: **747-8822**

   E-Mail: **sapalaia@loureiro.com**

   Contact Person: **Salvatore A. Palaia, P.E.** Title: **Senior Project Manager**

   Service Provided: **General Consulting**

Part II: Site Information

1. Is there any activity included in your Stormwater Management Plan that would adversely affect properties listed or eligible for listing in the National Register of Historic Places? ☐ Yes ☒ No

   If yes, the registrant must be in compliance with requirements of the National Historic Preservation Act and must coordinate with the appropriate State Historic Preservation Officer to avoid or minimize impacts from any necessary activities.

2. Is there any activity included in your Stormwater Management Plan that is located within the coastal boundary as delineated on DEP approved coastal boundary maps? ☐ Yes ☒ No

   If yes, and this application is for a new authorization or for a modification of an existing permit, you must submit a *Coastal Consistency Review Form* (DEP-APP-004) with your application as Attachment A.

   For forms or assistance, please call the Permit Assistance Office at 860-424-3003.

3. Is there any activity included in your Stormwater Management Plan that is located within an area identified as a habitat for endangered, threatened or special concern species as identified on the "State and Federal Listed Species and Natural Communities Map"?

   ☐ Yes ☒ No Date of Map: **2003**

   If yes, complete and submit a *Connecticut Natural Diversity Data Base* (CT NDDB) *Review Request Form* (DEP-APP-007) to the address specified on the form.

   When submitting this permit application, please include copies of any correspondence to the NDDB, including copies of the completed CT NDDB Review Request Form, any field surveys, and any other information which may lead you to believe that endangered or threatened species may or may not be located in the area of your existing or proposed permitted activity, as Attachment B.

   Has a field survey been conducted to determine the presence of any endangered, threatened or special concern species? ☐ Yes ☒ No If yes, provide:

   Biologist's Name:

   Address:

   and submit a copy of the field survey with your application as an Attachment as specified above.

Part III: Supporting Documents

Please check the attachments submitted as verification that *all* applicable attachments have been submitted with this application form. When submitting any supporting documents, please label the documents as indicated in this part (e.g., Attachment A, etc.) and be sure to include the applicant's name as indicated on the *Permit Application Transmittal Form*.

☐	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 *CT NDDB Request Form* (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 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 certify that this permit registration is on complete and accurate forms as prescribed by the Commissioner without alteration of the text.

I also certify under penalty of law that I have read and understand all requirements of the General Permit for the Discharge of Stormwater from a Municipal Separate Storm Sewer System issued on January 9, 2004 and that all requirements for authorization under the general permit are met and that a system is in place to ensure that all terms and conditions of this general permit will continue to be met for all discharges authorized by this general permit for the municipality. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowingly making false statements."

	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)
	Original Signed - July 7, 2004
Signature of Preparer (if different than above)	Date
Salvatore A. Palaia, P.E.	**Senior Project Manager**
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 copies 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

Part V: Best Management Practice List (BMP)

BMP ID	Public Education	Responsible 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 Access TV	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 ID	Public Participation	Responsible Dept. or Person	Measurable Goal
2-1	Develop public involvement/participation program	Planning	Prepare yearly schedule
2-2	Comply with state and local public notice and FOI requirements	Public Works	Maintain compliance
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			
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	Map outfalls greater than 12" in Urbanized Area (Year 4)	Engineering	Mapping completed
3-4	Develop program to detect and eliminate illicit discharges	Public Works	Program implemention
3-5	Develop illicit discharge ordinance	Public Works	Determine need
3-6			
3-7			
3-8			
3-9			
3-10			

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

Part VIA: Best Management Practice Timeline

BMP ID	Permit Year One				Permit Year Two				Permit Year Three				Permit Year Four				Permit Year Five				Next Permit
	Spring 2004	Summer 2004	Fall 2004	Winter 2004-05	Spring 2005	Summer 2005	Fall 2005	Winter 2005-06	Spring 2006	Summer 2006	Fall 2006	Winter 2006-07	Spring 2007	Summer 2007	Fall 2007	Winter 2007-08	Spring 2008	Summer 2008	Fall 2008	Winter 2008-09	
Public Education																					
1-1				Done		Done			Done									----			
1-2			Done				Done														
1-3				Done		Done													----		
1-4								Done				Done				----	----	----	----	----	
1-5																					
1-6																					
1-7																					
1-8																					
1-9																					
1-10																					
Public Participation																					
2-1				Done				Done				Done								----	
2-2				Done				Done				Done				Done	----	----	----	----	
2-3									Done										----		
2-4	Done				Done				Done				Done				----				
2-5																					
2-6																					
2-7																					
2-8																					
2-9																					
2-10																					
Illicit Discharge Detection & Elimination																					
3-1								Done	----	----	----	----	----	----	----	----	----	----	----	----	
3-2												Done	----	----	----	----	----	----	----	----	
3-3																Done	----	----	----	----	
3-4																----	----	----	----	----	
3-5																----					
3-6																					
3-7																					
3-8																					
3-9																					
3-10																					

----- Work in Progress X Task Completed as a One-time Event During that Quarter Done Task Completed

BMP ID	Permit Year One				Permit Year Two				Permit Year Three				Permit Year Four				Permit Year Five				Next Permit
	Spring 2004	Summer 2004	Fall 2004	Winter 2004-05	Spring 2005	Summer 2005	Fall 2005	Winter 2005-06	Spring 2006	Summer 2006	Fall 2006	Winter 2006-07	Spring 2007	Summer 2007	Fall 2007	Winter 2007-08	Spring 2008	Summer 2008	Fall 2008	Winter 2008-09	
Construction Site Runoff Control																					
4-1			Done	Done																	
4-2																					
4-3																					
4-4																					
4-5																					
4-6																					
4-7																					
4-8																					
4-9																					
4-10																					
Post Construction Runoff Control																					
5-1			Done	Done																	
5-2					Done	Done															
5-3					Done	Done	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
5-4												----	----	----	----	----	----	----	----	----	
5-5																					
5-6																					
5-7																					
5-8																					
5-9																					
5-10																					
Good Housekeeping																					
6-1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
6-2					Done				Done				Done				----				
6-3							Done				Done				Done						
6-4							Done														
6-5							Done														
6-6																					
6-7																					
6-8																					
6-9																					
6-10																					
Monitoring																					
S-1			X				X				X				X			----	----		
S-2												Done									

Part VIB: Sample Best Management Practice Timeline

BMP ID	Permit Year One				Permit Year Two				Permit Year Three				Permit Year Four				Permit Year Five				Next Permit
	Spring 2004	Summer 2004	Fall 2004	Winter 2004-05	Spring 2005	Summer 2005	Fall 2005	Winter 2005-06	Spring 2006	Summer 2006	Fall 2006	Winter 2006-07	Spring 2007	Summer 2007	Fall 2007	Winter 2007-08	Spring 2008	Summer 2008	Fall 2008	Winter 2008-09	
Public Education																					
1-1	----	----	Done																		
1-2				----	----	----	----	----	Done												
1-3			----	----	----	----	Done														
1-4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
1-5									----	----	----	----	----	----	Done						
1-6																					
1-7																					
1-8																					
1-9																					
1-10																					
Public Participation																					
2-1	----	----	----	----		X				X				X				X			
2-2	X				X				X				X				X				
2-3					----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
2-4									----	----	----	----	----	----	----	----	Done				
2-5																					
2-6																					
2-7																					
2-8																					
2-9																					
2-10																					
Illicit Discharge Detection & Elimination																					
3-1					----	----	----	Done													
3-2									----	----	----	Done									
3-3													----	----	----	Done					
3-4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
3-5	----	----	----	Done																	
3-6		X				X				X				X				X			
3-7																					
3-8																					
3-9																					
3-10																					

---- Work in Progress

X Task Completed as a One-time Event During that Quarter

Done Task Completed

BMP ID	Permit Year One				Permit Year Two				Permit Year Three				Permit Year Four				Permit Year Five				Next Permit
	Spring 2004	Summer 2004	Fall 2004	Winter 2004-05	Spring 2005	Summer 2005	Fall 2005	Winter 2005-06	Spring 2006	Summer 2006	Fall 2006	Winter 2006-07	Spring 2007	Summer 2007	Fall 2007	Winter 2007-08	Spring 2008	Summer 2008	Fall 2008	Winter 2008-09	
Construction Site Runoff Control																					
4-1			----	----	----	Done															
4-2							----	----	----	Done											
4-3													----	----	----	Done					
4-4																					
4-5																					
4-6																					
4-7																					
4-8																					
4-9																					
4-10																					
Post Construction Runoff Control																					
5-1		----	----	----	Done																
5-2					----	----	----	Done													
5-3									----	----	----	Done									
5-4													----	----	----	Done					
5-5			X				X				X				X				X		
5-6																					
5-7																					
5-8																					
5-9																					
5-10																					
Good Housekeeping																					
6-1	----	----	----	----				X				X				X				X	
6-2	X				X				X				X				X				
6-3	----	----	----														----	----	Done		
6-4		----	----	----	----				X				X				X				
6-5									----	----	----	Done									
6-6																					
6-7																					
6-8																					
6-9																					
6-10																					
Monitoring																					
S-1		----	----			----	----			----	----			----	----			----	----		
S-2																					

ATTACHMENT B

Stormwater Monitoring Report Forms

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

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): (2007) R6: Lat 41-41-50.391, Long 72-53-37.337

Located on the west side of Camp Street across from #718

Please circle the appropriate area description: Industrial, Commercial, or (Residential)

Receiving Water (name, basin): Coppermine Brook 4314-09-1

Time of Start of Discharge: 05:00hrs

Date/Time Collected: November 6, 2007/07:04hrs Water Temperature: 45°F

Person Collecting Sample: Bruce Cyr & Stephen Doyon

Storm Magnitude (inches): 0.35 Storm Duration (hours): 7(approx)

Date of Previous Storm Event: October 12, 2007

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	SM19 4500H+B	6.2	Averill Environmental Lab #AEL07008573
Rain pH	SM19 4500H+B	6.1	Averill Environmental Lab #AEL07008573
Hardness	SM 2340 B	10.9 mg/L CaO3	Averill Environmental Lab #AEL07008573
Conductivity	SM19 2510B	40 micromhos/cm	Averill Environmental Lab #AEL07008573
Oil & Grease	EPA 1664A	<1.9 mg/L	Averill Environmental Lab #AEL07008573
COD	EPA 410.4	49 mg/L	Averill Environmental Lab #AEL07008573
Turbidity	EPA 180.1	6.5 NTU	Averill Environmental Lab #AEL07008573
TSS	SM19 2540D	10.0 mg/L	Averill Environmental Lab #AEL07008573
TP	SM19 4500PE	0.197 mg/L as P	Averill Environmental Lab #AEL07008573
Ammonia	SM19 4500NHD	0.31 mg/L	Averill Environmental Lab #AEL07008573
TKN	SM194500NH3F	1.1 mg/L	Averill Environmental Lab #AEL07008573
NO_3+NO_2	EPA 300.0	0.33 mg/L	Averill Environmental Lab #AEL07008573
E. coli	SM 9222 B	1015 per 100 mL	Averill Environmental Lab #AEL07008573

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: Russell M. Arnold, Jr., P.E., Director of Public Works/Town Engineer

Signature: Russell M Arnold Jr Date: January 3, 2007

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

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): (2007) R7: Lat 41-42-16.339, Long 72-53-39.193

Located on the west side of Harold Road between #63 & #65

Please circle the appropriate area description: Industrial, Commercial, or (Residential)

Receiving Water (name, basin): Pequabuck River 4315-13-1-L1

Time of Start of Discharge: 05:00hrs

Date/Time Collected: November 6, 2007/07:15hrs Water Temperature: 45°F

Person Collecting Sample: Bruce Cyr & Stephen Doyon

Storm Magnitude (inches): 0.35 Storm Duration (hours): 7(approx)

Date of Previous Storm Event: October 12, 2007

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	SM19 4500H+B	7.0	Averill Environmental Lab #AEL07008574
Rain pH	SM19 4500H+B	6.1	Averill Environmental Lab #AEL07008574
Hardness	SM 2340 B	101 mg/L CaO3	Averill Environmental Lab #AEL07008574
Conductivity	SM19 2510B	260 micromhos/cm	Averill Environmental Lab #AEL07008574
Oil & Grease	EPA 1664A	<1.9 mg/L	Averill Environmental Lab #AEL07008574
COD	EPA 410.4	38 mg/L	Averill Environmental Lab #AEL07008574
Turbidity	EPA 180.1	7.4 NTU	Averill Environmental Lab #AEL07008574
TSS	SM19 2540D	12.0 mg/L	Averill Environmental Lab #AEL07008574
TP	SM19 4500PE	0.090 mg/L as P	Averill Environmental Lab #AEL07008574
Ammonia	SM19 4500NHD	0.27 mg/L	Averill Environmental Lab #AEL07008574
TKN	SM194500NH3F	1.0 mg/L	Averill Environmental Lab #AEL07008574
NO_3+NO_2	EPA 300.0	0.67 mg/L	Averill Environmental Lab #AEL07008574
E. coli	SM 9222 B	1005 per 100 mL	Averill Environmental Lab #AEL07008574

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: Russell M. Arnold, Jr., P.E., Director of Public Works/Town Engineer

Signature: Russell M. Arnold Jr. Date: January 3, 2007

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

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): (2007) R8: Lat 41-42-20.585, Long 72-53-35.971

Located on the north side of Harold Road east of #87

Please circle the appropriate area description: Industrial, Commercial, or (Residential)

Receiving Water (name, basin): Pequabuck River 4315-13-1-L1

Time of Start of Discharge: 05:00hrs

Date/Time Collected: November 6, 2007/07:20hrs Water Temperature: 45°F

Person Collecting Sample: Bruce Cyr & Stephen Doyon

Storm Magnitude (inches): 0.35 Storm Duration (hours): 7(approx)

Date of Previous Storm Event: October 12, 2007

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	SM19 4500H+B	7.1	Averill Environmental Lab #AEL07008575
Rain pH	SM19 4500H+B	6.1	Averill Environmental Lab #AEL07008575
Hardness	SM 2340 B	129 mg/L CaO3	Averill Environmental Lab #AEL07008575
Conductivity	SM19 2510B	320 micromhos/cm	Averill Environmental Lab #AEL07008575
Oil & Grease	EPA 1664A	<1.9 mg/L	Averill Environmental Lab #AEL07008575
COD	EPA 410.4	27 mg/L	Averill Environmental Lab #AEL07008575
Turbidity	EPA 180.1	4.0 NTU	Averill Environmental Lab #AEL07008575
TSS	SM19 2540D	8.0 mg/L	Averill Environmental Lab #AEL07008575
TP	SM19 4500PE	0.085 mg/L as P	Averill Environmental Lab #AEL07008575
Ammonia	SM19 4500NHD	0.20 mg/L	Averill Environmental Lab #AEL07008575
TKN	SM194500NH3F	<1.0 mg/L	Averill Environmental Lab #AEL07008575
NO_3+NO_2	EPA 300.0	0.49 mg/L	Averill Environmental Lab #AEL07008575
E. coli	SM 9222 B	660 per 100 mL	Averill Environmental Lab #AEL07008575

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: Russell M. Arnold, Jr., P.E., Director of Public Works/Town Engineer

Signature: Russell M Arnold Jr Date: January 3, 2007

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

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): (2007) R9: Lat 41-41-32.491, Long 72-50-08.263

Located on east side of South Ridge Road between #22 & #28 (Taken from CB/Could not find outlet)

Please circle the appropriate area description: Industrial, Commercial, or (Residential)

Receiving Water (name, basin): Pequabuck River 4315-00-4-R5

Time of Start of Discharge: 05:00hrs

Date/Time Collected: November 6, 2007/08:05hrs Water Temperature: 45°F

Person Collecting Sample: Bruce Cyr & Stephen Doyon

Storm Magnitude (inches): 0.35 Storm Duration (hours): 7(approx)

Date of Previous Storm Event: October 12, 2007

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	SM19 4500H+B	6.2	Averill Environmental Lab #AEL07008576
Rain pH	SM19 4500H+B	6.1	Averill Environmental Lab #AEL07008576
Hardness	SM 2340 B	59.5 mg/L CaO3	Averill Environmental Lab #AEL07008576
Conductivity	SM19 2510B	30 micromhos/cm	Averill Environmental Lab #AEL07008576
Oil & Grease	EPA 1664A	2.9 mg/L	Averill Environmental Lab #AEL07008576
COD	EPA 410.4	65 mg/L	Averill Environmental Lab #AEL07008576
Turbidity	EPA 180.1	8.7 NTU	Averill Environmental Lab #AEL07008576
TSS	SM19 2540D	20.0 mg/L	Averill Environmental Lab #AEL07008576
TP	SM19 4500PE	0.137 mg/L as P	Averill Environmental Lab #AEL07008576
Ammonia	SM19 4500NHD	0.20 mg/L	Averill Environmental Lab #AEL07008576
TKN	SM194500NH3F	1.6 mg/L	Averill Environmental Lab #AEL07008576
NO_3+NO_2	EPA 300.0	0.28 mg/L	Averill Environmental Lab #AEL07008576
E. coli	SM 9222 B	375 per 100 mL	Averill Environmental Lab #AEL07008576

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: Russell M. Arnold, Jr., P.E., Director of Public Works/Town Engineer

Signature: Russell M Arnold Date: January 3, 2007

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

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): (2007) R10: Lat 41-41-29.3000, Long 72-50-09.842

Located on east side of South Ridge Road in front of #30 (taken from CB/before discharge into Plainville)

Please circle the appropriate area description: Industrial, Commercial, or (Residential)

Receiving Water (name, basin): Pequabuck River 4315-00-4-R5

Time of Start of Discharge: 05:00hrs

Date/Time Collected: November 6, 2007/08:19hrs Water Temperature: 45°F

Person Collecting Sample: Bruce Cyr & Stephen Doyon

Storm Magnitude (inches): 0.35 Storm Duration (hours): 7(approx)

Date of Previous Storm Event: October 12, 2007

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	SM19 4500H+B	7.0	Averill Environmental Lab #AEL07008577
Rain pH	SM19 4500H+B	6.1	Averill Environmental Lab #AEL07008577
Hardness	SM 2340 B	25.3 mg/L CaO3	Averill Environmental Lab #AEL07008577
Conductivity	SM19 2510B	72 micromhos/cm	Averill Environmental Lab #AEL07008577
Oil & Grease	EPA 1664A	<2.0 mg/L	Averill Environmental Lab #AEL07008577
COD	EPA 410.4	<20 mg/L	Averill Environmental Lab #AEL07008577
Turbidity	EPA 180.1	9.2 NTU	Averill Environmental Lab #AEL07008577
TSS	SM19 2540D	13.0 mg/L	Averill Environmental Lab #AEL07008577
TP	SM19 4500PE	0.093 mg/L as P	Averill Environmental Lab #AEL07008577
Ammonia	SM19 4500NHD	0.23 mg/L	Averill Environmental Lab #AEL07008577
TKN	SM194500NH3F	1.2 mg/L	Averill Environmental Lab #AEL07008577
NO_3+NO_2	EPA 300.0	0.60 mg/L	Averill Environmental Lab #AEL07008577
E. coli	SM 9222 B	670 per 100 mL	Averill Environmental Lab #AEL07008577

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: Russell M. Arnold, Jr., P.E., Director of Public Works/Town Engineer

Signature: Russell M Arnold Jr Date: January 3, 2007

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

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): (2007) R11: Lat 41-41-54.510, Long 72-52-44.528

Located a the outlet of a private pond on the south side of Farmington Chase Crescent near the intersection with Rte 177 (Water was not spilling over the dam, water taken from surface near dam)

Please circle the appropriate area description: Industrial, Commercial, or (Residential)

Receiving Water (name, basin): Pequabuck River 4315-11-1

Time of Start of Discharge: 05:00hrs

Date/Time Collected: November 6, 2007/07:37hrs Water Temperature: 45°F

Person Collecting Sample: Bruce Cyr & Stephen Doyon

Storm Magnitude (inches): 0.35 Storm Duration (hours): 7(approx)

Date of Previous Storm Event: October 12, 2007

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	SM19 4500H+B	6.3	Averill Environmental Lab #AEL07008578
Rain pH	SM19 4500H+B	6.1	Averill Environmental Lab #AEL07008578
Hardness	SM 2340 B	8.9 mg/L CaO3	Averill Environmental Lab #AEL07008578
Conductivity	SM19 2510B	46 micromhos/cm	Averill Environmental Lab #AEL07008578
Oil & Grease	EPA 1664A	<1.8 mg/L	Averill Environmental Lab #AEL07008578
COD	EPA 410.4	54 mg/L	Averill Environmental Lab #AEL07008578
Turbidity	EPA 180.1	4.2 NTU	Averill Environmental Lab #AEL07008578
TSS	SM19 2540D	22.0 mg/L	Averill Environmental Lab #AEL07008578
TP	SM19 4500PE	0.339 mg/L as P	Averill Environmental Lab #AEL07008578
Ammonia	SM19 4500NHD	0.23 mg/L	Averill Environmental Lab #AEL07008578
TKN	SM194500NH3F	<1.0 mg/L	Averill Environmental Lab #AEL07008578
NO_3+NO_2	EPA 300.0	<0.23 mg/L	Averill Environmental Lab #AEL07008578
E. coli	SM 9222 B	2825 per 100 mL	Averill Environmental Lab #AEL07008578

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: Russell M. Arnold, Jr., P.E., Director of Public Works/Town Engineer

Signature: Russell M Arnold Jr Date: January 3, 2007

AVERILL ENVIRONMENTAL LABORATORY, INC.

CT Laboratory ID No. PH-0513
MA Laboratory ID No. M-CT0513
NY Laboratory ID No. 11599

100 Northwest Drive, Plainville, Connecticut 06062
(860) 747-0676 Fax: (860) 747-9264 CT ONLY 1-(800) 870-7904
Lawton S. Averill - Director Alan G. Jacobs - Co-Director

NH Laboratory ID No. 2506
ME Laboratory ID No. CT029
EPA Laboratory ID No. CT00029

REPORT ON LABORATORY EXAMINATIONS

To Client: Town of Farmington, Engineering
1 Monteith Drive
Farmington, CT 06034-0948

Report No: AEL07R-0762.0
Report Date: Thursday, November 29, 2007
ATTN: Bruce Cyr
Collected By: Client

Source: Farmington, CT
Sample Matrix: Surface Water
Sample ID: Stormwater Sample
Collect Date: 11/6/2007
AEL Lab#: AEL07008573 **Client Sample ID#:** R6-11-6-07
Collect Time: 7:04
Received Date: 11/6/2007

Test	Result	Units	Analyst	Analysis Date	Analysis Method
Total Suspended Solids	10.0	mg/L	CC	11/13/2007	SM19 2540D
Nitrate Nitrogen as N	0.33	mg/L	CC	11/8/2007	EPA 300.0
Nitrite Nitrogen as N	<0.122	mg/L	CC	11/8/2007	EPA 300.0
pH of Rain	6.1	units	JF	11/6/2007	SM19 4500H+B
pH	6.2	units	AGJ/JF	11/6/2007	SM19 4500H+B
Specific Conductivity	40	micromhos/cm	MTK	11/14/2007	SM19 2510B
Hardness, Calculated	10.9	mg/L CaCO3	JM	11/7/2007	SM 2340 B
Chemical Oxygen Demand	49	mg/L	JF	11/12/2007	EPA 410.4
Ammonia Nitrogen as N	0.31	mg/L	CC	11/8/2007	SM19 4500NHD
Phosphorus, Total as P	0.197	mg/L as P	JS	11/15/2007	SM19 4500PE
E. Coli	1015	per 100 mL	JF	11/6/2007	SM 9222 B
Total Coliform	365400	per 100 mL	JF	11/6/2007	SM 9222 B
Total Kjeldahl Nitrogen	1.1	mg/L	CC	11/29/2007	SM194500NH3F
Turbidity	6.5	NTU	AGJ	11/6/2007	EPA 180.1
Calcium	3.34	mg/L	JM	11/7/2007	EPA 200.7
Magnesium	0.61	mg/L	JM	11/7/2007	EPA 200.7
Oil & Grease, Hexane Ext. Material	<1.9	mg/L	RB	11/19/2007	EPA 1664A

Sample ID: Stormwater Sample
Collect Date: 11/6/2007
AEL Lab#: AEL07008574 **Client Sample ID#:** R7-11-6-07
Collect Time: 7:15
Received Date: 11/6/2007

Test	Result	Units	Analyst	Analysis Date	Analysis Method
Total Suspended Solids	12.0	mg/L	CC	11/13/2007	SM19 2540D
Nitrate Nitrogen as N	0.67	mg/L	CC	11/8/2007	EPA 300.0
Nitrite Nitrogen as N	<0.122	mg/L	CC	11/8/2007	EPA 300.0
pH	7.0	units	AGJ/JF	11/6/2007	SM19 4500H+B
pH of Rain	6.1	units	JF	11/6/2007	SM19 4500H+B
Specific Conductivity	260	micromhos/cm	MTK	11/14/2007	SM19 2510B
Hardness, Calculated	101	mg/L CaCO3	JM	11/7/2007	SM 2340 B
Chemical Oxygen Demand	38	mg/L	JF	11/12/2007	EPA 410.4
Ammonia Nitrogen as N	0.27	mg/L	CC	11/8/2007	SM19 4500NHD
Phosphorus, Total as P	0.090	mg/L as P	JS	11/15/2007	SM19 4500PE
E. Coli	1005	per 100 mL	JF	11/6/2007	SM 9222 B

Lawton S. Averill (MAP)
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Total Coliform	298700	per 100 mL	JF	11/6/2007	SM 9222 B
Total Kjeldahl Nitrogen	1.0	mg/L	CC	11/29/2007	SM194500NH3F
Turbidity	7.4	NTU	AGJ	11/6/2007	EPA 180.1
Calcium	35.0	mg/L	JM	11/7/2007	EPA 200.7
Magnesium	3.29	mg/L	JM	11/7/2007	EPA 200.7
Oil & Grease, Hexane Ext. Material	< 1.9	mg/L	RB	11/19/2007	EPA 1664A

Sample ID: Stormwater Sample **Collect Date:** 11/6/2007

AEL Lab#: AEL07008575 **Client Sample ID#:** R8-11-6-07 **Collect Time:** 7:20

Received Date: 11/6/2007

Test	Result	Units	Analyst	Analysis Date	Analysis Method
Total Suspended Solids	8.0	mg/L	CC	11/13/2007	SM19 2540D
Nitrate Nitrogen as N	0.49	mg/L	CC	11/8/2007	EPA 300.0
Nitrite Nitrogen as N	< 0.122	mg/L	CC	11/8/2007	EPA 300.0
pH	7.1	units	AGJ/JF	11/6/2007	SM19 4500H+B
pH of Rain	6.1	units	JF	11/6/2007	SM19 4500H+B
Specific Conductivity	320	micromhos/cm	MTK	11/14/2007	SM19 2510B
Hardness, Calculated	129	mg/L CaCO3	JM	11/7/2007	SM 2340 B
Chemical Oxygen Demand	27	mg/L	JF	11/12/2007	EPA 410.4
Ammonia Nitrogen as N	0.20	mg/L	CC	11/8/2007	SM19 4500NHD
Phosphorus, Total as P	0.085	mg/L as P	JS	11/15/2007	SM19 4500PE
E. Coli	660	per 100 mL	JF	11/6/2007	SM 9222 B
Total Coliform	58800	per 100 mL	JF	11/6/2007	SM 9222 B
Total Kjeldahl Nitrogen	< 1.0	mg/L	CC	11/29/2007	SM194500NH3F
Turbidity	4.0	NTU	AGJ	11/6/2007	EPA 180.1
Calcium	45.1	mg/L	JM	11/7/2007	EPA 200.7
Magnesium	3.86	mg/L	JM	11/7/2007	EPA 200.7
Oil & Grease, Hexane Ext. Material	< 1.9	mg/L	RB	11/19/2007	EPA 1664A

Sample ID: Stormwater Sample **Collect Date:** 11/6/2007

AEL Lab#: AEL07008576 **Client Sample ID#:** R9-11-6-07 **Collect Time:** 8:05

Received Date: 11/6/2007

Test	Result	Units	Analyst	Analysis Date	Analysis Method
Total Suspended Solids	20.0	mg/L	CC	11/13/2007	SM19 2540D
Nitrate Nitrogen as N	0.28	mg/L	CC	11/8/2007	EPA 300.0
Nitrite Nitrogen as N	< 0.122	mg/L	CC	11/8/2007	EPA 300.0
pH of Rain	6.1	units	JF	11/6/2007	SM19 4500H+B
pH	6.2	units	AGJ/JF	11/6/2007	SM19 4500H+B
Specific Conductivity	30	micromhos/cm	MTK	11/14/2007	SM19 2510B
Hardness, Calculated	59.5	mg/L CaCO3	JM	11/7/2007	SM 2340 B
Chemical Oxygen Demand	65	mg/L	JF	11/12/2007	EPA 410.4
Ammonia Nitrogen as N	0.20	mg/L	CC	11/8/2007	SM19 4500NHD
Phosphorus, Total as P	0.137	mg/L as P	JS	11/15/2007	SM19 4500PE
E. Coli	375	per 100 mL	JF	11/6/2007	SM 9222 B
Total Coliform	74800	per 100 mL	JF	11/6/2007	SM 9222 B
Total Kjeldahl Nitrogen	1.6	mg/L	CC	11/29/2007	SM194500NH3F
Turbidity	8.7	NTU	AGJ	11/6/2007	EPA 180.1
Calcium	21.3	mg/L	JM	11/7/2007	EPA 200.7

(MAP)

Laboratory Director

Magnesium	1.51	mg/L	JM	11/7/2007	EPA 200.7
Oil & Grease, Hexane Ext. Material	2.9	mg/L	RB	11/19/2007	EPA 1664A

Sample ID: Stormwater Sample **Collect Date:** 11/6/2007

AEL Lab#: AEL07008577 **Client Sample ID#:** R10-11-6-07 **Collect Time:** 8:19

Received Date: 11/6/2007

Test	Result	Units	Analyst	Analysis Date	Analysis Method
Total Suspended Solids	13.0	mg/L	CC	11/13/2007	SM19 2540D
Nitrate Nitrogen as N	0.60	mg/L	CC	11/8/2007	EPA 300.0
Nitrite Nitrogen as N	< 0.122	mg/L	CC	11/8/2007	EPA 300.0
pH	7.0	units	AGJ/JF	11/6/2007	SM19 4500H+B
pH of Rain	6.1	units	JF	11/6/2007	SM19 4500H+B
Specific Conductivity	72	micromhos/cm	MTK	11/14/2007	SM19 2510B
Hardness, Calculated	25.3	mg/L CaCO3	JM	11/7/2007	SM 2340 B
Chemical Oxygen Demand	< 20	mg/L	JF	11/12/2007	EPA 410.4
Ammonia Nitrogen as N	0.23	mg/L	CC	11/8/2007	SM19 4500NHD
Phosphorus, Total as P	0.093	mg/L as P	JS	11/15/2007	SM19 4500PE
E. Coli	670	per 100 mL	JF	11/6/2007	SM 9222 B
Total Coliform	62000	per 100 mL	JF	11/6/2007	SM 9222 B
Total Kjeldahl Nitrogen	1.2	mg/L	CC	11/29/2007	SM194500NH3F
Turbidity	9.2	NTU	AGJ	11/6/2007	EPA 180.1
Calcium	7.04	mg/L	JM	11/7/2007	EPA 200.7
Magnesium	1.86	mg/L	JM	11/7/2007	EPA 200.7
Oil & Grease, Hexane Ext. Material	< 2.0	mg/L	RB	11/19/2007	EPA 1664A

Sample ID: Stormwater Sample **Collect Date:** 11/6/2007

AEL Lab#: AEL07008578 **Client Sample ID#:** R11-11-6-07 **Collect Time:** 7:37

Received Date: 11/6/2007

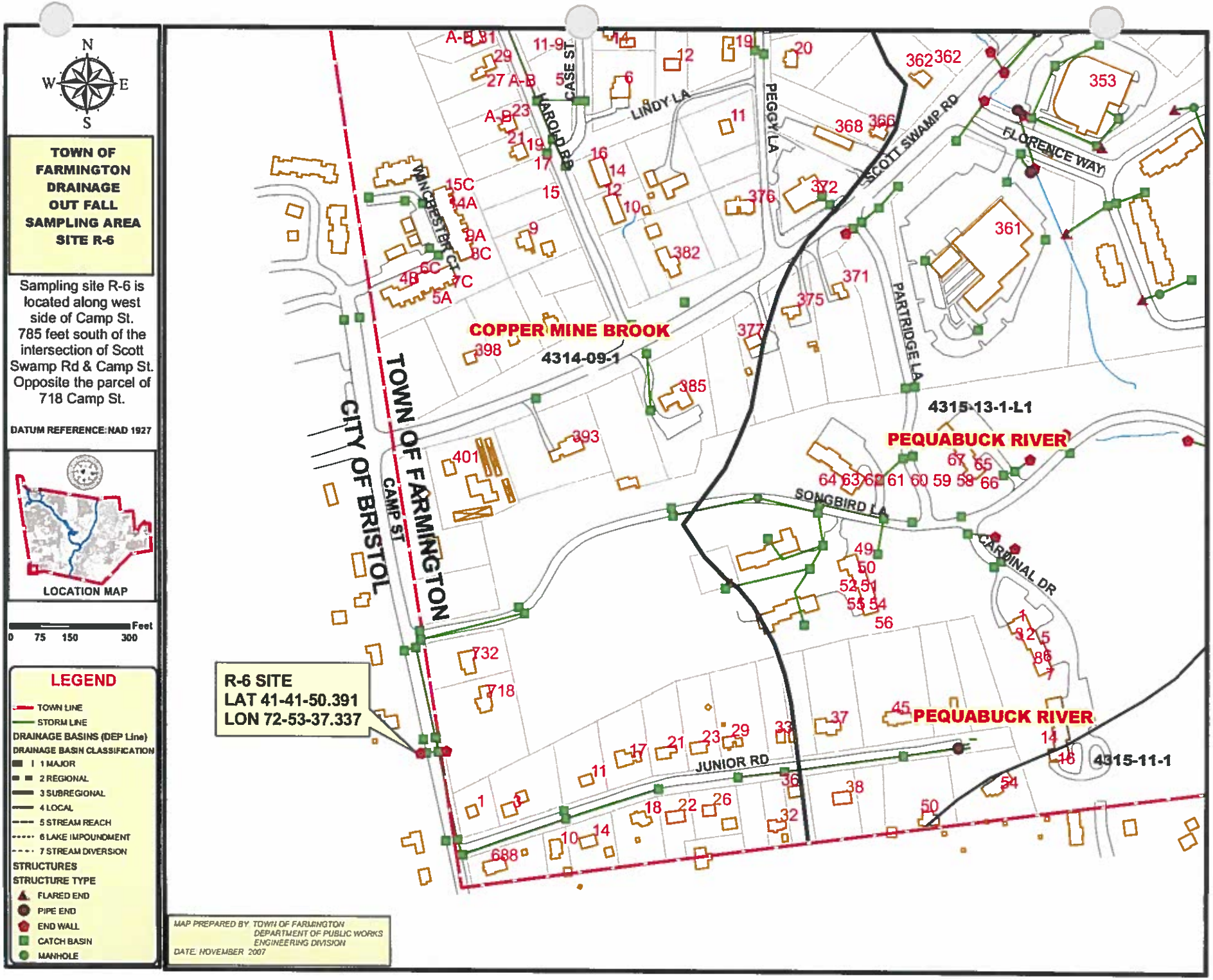
Test	Result	Units	Analyst	Analysis Date	Analysis Method
Total Suspended Solids	22.0	mg/L	CC	11/13/2007	SM19 2540D
Nitrate Nitrogen as N	< 0.23	mg/L	CC	11/8/2007	EPA 300.0
Nitrite Nitrogen as N	< 0.122	mg/L	CC	11/8/2007	EPA 300.0
pH	6.3	units	AGJ/JF	11/6/2007	SM19 4500H+B
pH of Rain	6.1	units	JF	11/6/2007	SM19 4500H+B
Specific Conductivity	46	micromhos/cm	MTK	11/14/2007	SM19 2510B
Hardness, Calculated	8.9	mg/L CaCO3	JM	11/7/2007	SM 2340 B
Chemical Oxygen Demand	54	mg/L	JF	11/12/2007	EPA 410.4
Ammonia Nitrogen as N	0.23	mg/L	CC	11/8/2007	SM19 4500NHD
Phosphorus, Total as P	0.339	mg/L as P	JS	11/15/2007	SM19 4500PE
E. Coli	2825	per 100 mL	JF	11/6/2007	SM 9222 B
Total Coliform	98400	per 100 mL	JF	11/6/2007	SM 9222 B
Total Kjeldahl Nitrogen	< 1.0	mg/L	CC	11/29/2007	SM194500NH3F
Turbidity	4.2	NTU	AGJ	11/6/2007	EPA 180.1
Calcium	2.63	mg/L	JM	11/7/2007	EPA 200.7
Magnesium	0.58	mg/L	JM	11/7/2007	EPA 200.7
Oil & Grease, Hexane Ext. Material	< 1.8	mg/L	RB	11/19/2007	EPA 1664A

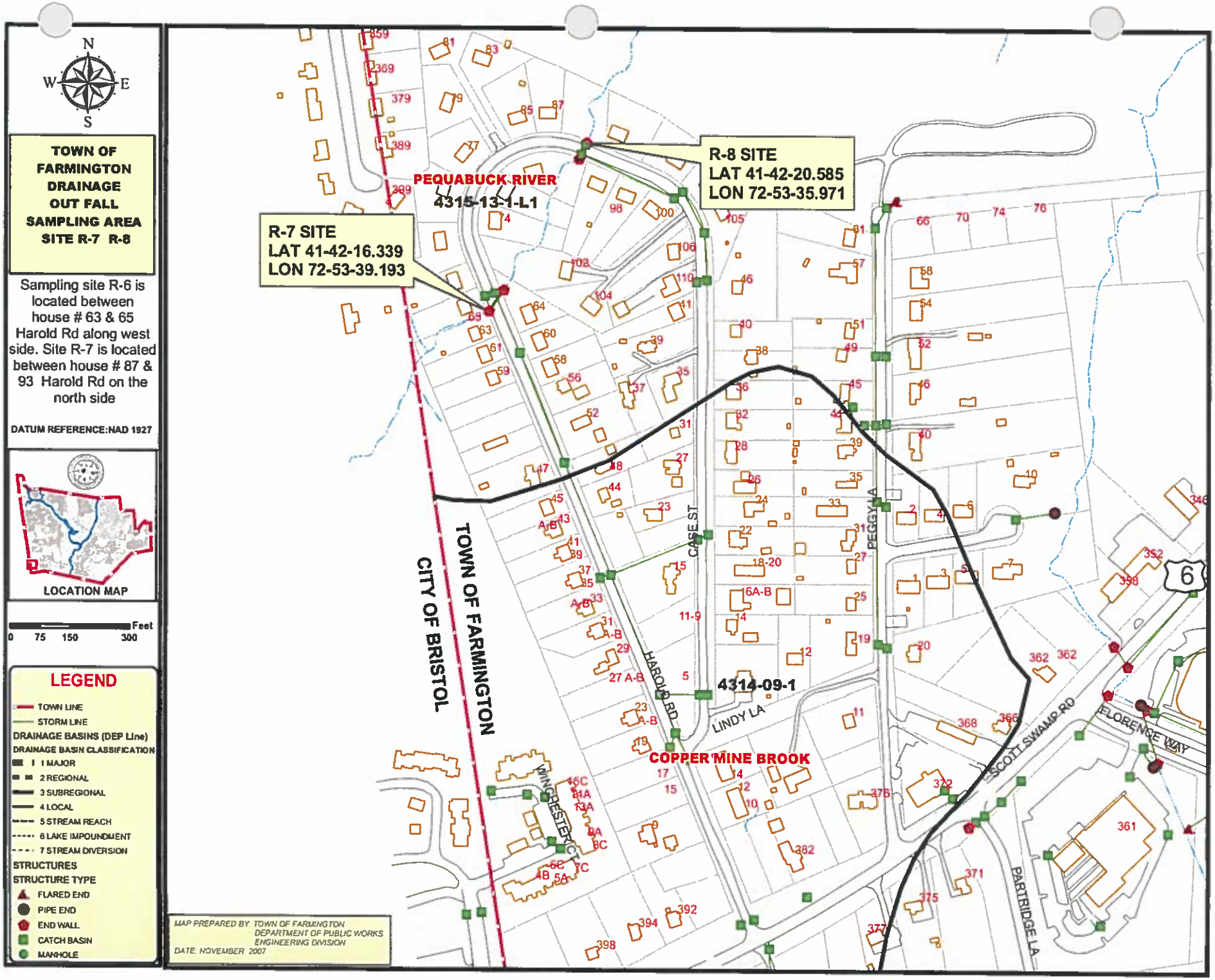
(MAP)

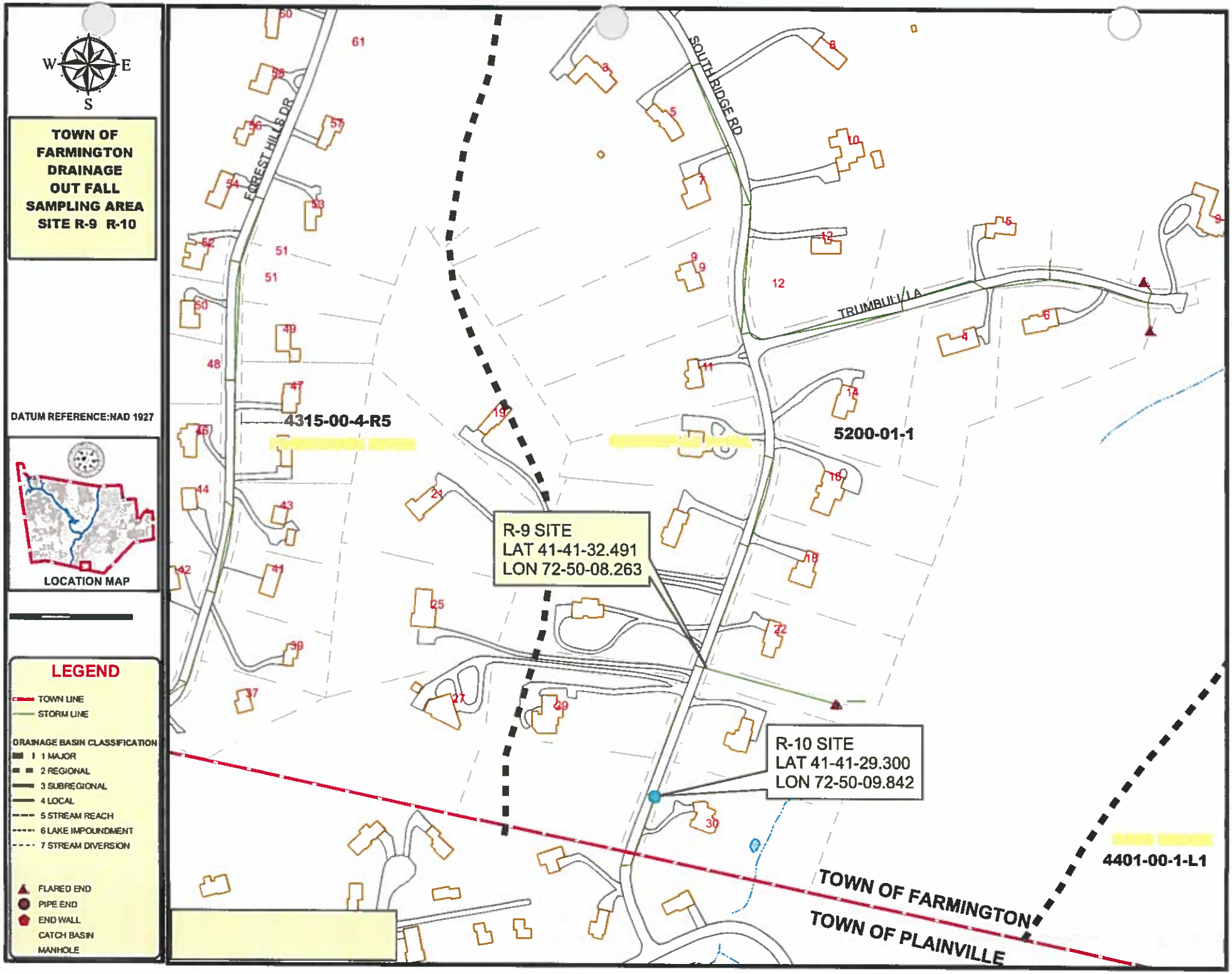
Laboratory Director

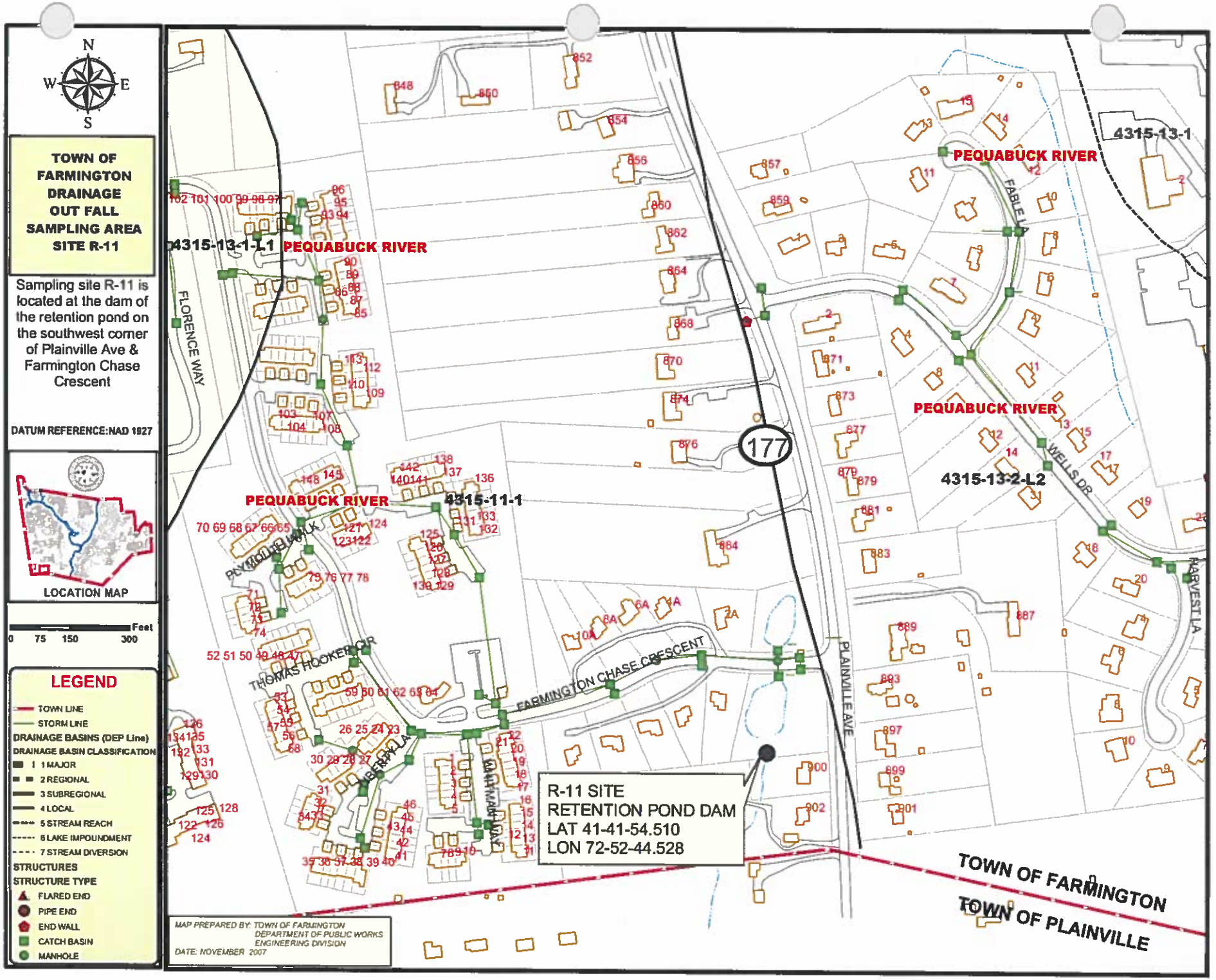
ATTACHMENT C

Monitoring Site Location Mapping


N
W
E
S
TOWN OF FARMINGTON DRAINAGE OUT FALL SAMPLING AREA SITE R-6
Sampling site R-6 is located along west side of Camp St. 785 feet south of the intersection of Scott Swamp Rd & Camp St. Opposite the parcel of 718 Camp St.
DATUM REFERENCE:NAD 1927
LOCATION MAP
Feet
0 75 150 300
LEGEND
TOWN LINE
STORM LINE
DRAINAGE BASINS (DEP Line)
DRAINAGE BASIN CLASSIFICATION
1 MAJOR
2 REGIONAL
3 SUBREGIONAL
4 LOCAL
5 STREAM REACH
6 LAKE IMPOUNDMENT
7 STREAM DIVERSION
STRUCTURES
STRUCTURE TYPE
FLARED END
PIPE END
END WALL
CATCH BASIN
MANHOLE
R-6 SITE
LAT 41-41-50.391
LON 72-53-37.337
COPPER MINE BROOK
4314-09-1
PEQUABUCK RIVER
4315-13-1-L1
PEQUABUCK RIVER
4315-11-1
TOWN OF FARMINGTON
CITY OF BRISTOL
CAMP ST
CASE ST
HAROLD RD
LINDY LA
PEGGY LA
SCOTT SWAMP RD
FLORENCE WAY
PARTRIDGE LA
SONGBIRD LA
CARDINAL DR
JUNIOR RD
WINCHESTER CT
MAP PREPARED BY: TOWN OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
DATE: NOVEMBER 2007


TOWN OF FARMINGTON DRAINAGE OUT FALL SAMPLING AREA SITE R-7 R-8
Sampling site R-6 is located between house # 63 & 65 Harold Rd along west side. Site R-7 is located between house # 87 & 93 Harold Rd on the north side
DATUM REFERENCE:NAD 1927
LOCATION MAP
Feet
0 75 150 300
LEGEND
TOWN LINE
STORM LINE
DRAINAGE BASINS (DEP Line)
DRAINAGE BASIN CLASSIFICATION
1 MAJOR
2 REGIONAL
3 SUBREGIONAL
4 LOCAL
5 STREAM REACH
6 LAKE IMPOUNDMENT
7 STREAM DIVERSION
STRUCTURES
STRUCTURE TYPE
FLARED END
PIPE END
END WALL
CATCH BASIN
MANHOLE
R-8 SITE
LAT 41-42-20.585
LON 72-53-35.971
R-7 SITE
LAT 41-42-16.339
LON 72-53-39.193
PEQUABUCK RIVER
4315-13-1-L1
4314-09-1
COPPER MINE BROOK
TOWN OF FARMINGTON
CITY OF BRISTOL
CASE ST
PEGGY LA
HAROLD RD
LINDY LA
WINCHESTER CT
SCOTT SWAMP RD
FLORENCE WAY
PARTRIDGE LA
6
MAP PREPARED BY: TOWN OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
DATE: NOVEMBER 2007


TOWN OF FARMINGTON DRAINAGE OUT FALL SAMPLING AREA SITE R-9 R-10
DATUM REFERENCE:NAD 1927
LOCATION MAP
LEGEND
TOWN LINE
STORM LINE
DRAINAGE BASIN CLASSIFICATION
1 MAJOR
2 REGIONAL
3 SUBREGIONAL
4 LOCAL
5 STREAM REACH
6 LAKE IMPOUNDMENT
7 STREAM DIVERSION
FLARED END
PIPE END
END WALL
CATCH BASIN
MANHOLE
FOREST HILLS DR
SOUTH RIDGE RD
TRUMBULL LA
4315-00-4-R5
5200-01-1
4401-00-1-L1
R-9 SITE
LAT 41-41-32.491
LON 72-50-08.263
R-10 SITE
LAT 41-41-29.300
LON 72-50-09.842
TOWN OF FARMINGTON
TOWN OF PLAINVILLE


N
W
E
S
TOWN OF FARMINGTON
DRAINAGE
OUT FALL
SAMPLING AREA
SITE R-11
Sampling site R-11 is located at the dam of the retention pond on the southwest corner of Plainville Ave & Farmington Chase Crescent
DATUM REFERENCE:NAD 1927
LOCATION MAP
Feet
0 75 150 300
LEGEND
TOWN LINE
STORM LINE
DRAINAGE BASINS (DEP Line)
DRAINAGE BASIN CLASSIFICATION
1 MAJOR
2 REGIONAL
3 SUBREGIONAL
4 LOCAL
5 STREAM REACH
6 LAKE IMPOUNDMENT
7 STREAM DIVERSION
STRUCTURES
STRUCTURE TYPE
FLARED END
PIPE END
END WALL
CATCH BASIN
MANHOLE
4315-13-1-L1
PEQUABUCK RIVER
FLORENCE WAY
PEQUABUCK RIVER
4315-11-1
PEQUABUCK RIVER
4315-13-1
PEQUABUCK RIVER
4315-13-2-L2
177
FABLE LA
WELLS DR
HARVEST LA
PLAINVILLE AVE
FARMINGTON CHASE CRESCENT
THOMAS HOOKER DR
R-11 SITE
RETENTION POND DAM
LAT 41-41-54.510
LON 72-52-44.528
TOWN OF FARMINGTON
TOWN OF PLAINVILLE
MAP PREPARED BY: TOWN OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
DATE: NOVEMBER 2007