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Municipality/Organization:	Town of Blackstone
EPA NPDES Permit Number:	MA041093
MaDEP Transmittal Number:	W - 036393
Annual Report Number & Reporting Period:	No. 2: May 04-April 05

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person:	Wayne Bates, PhD, PE	Title:	Town Engineer
Telephone #:	(508) 883-9331	Email:	wbates@townof blackstone.org

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Raymond W. Houle, Jr.

Printed Name: Raymond W. Houle, Jr.

Title: Town Administrator

Date: MAY 6, 2005

Part II. Self-Assessment

The Town of Blackstone has successfully implemented or begun implementation of several Measurable Goals noted in its Notice of Intent.

Blackstone is pleased to present the following summary describing its success at implementing the second year of the Town's Comprehensive Stormwater Management Program.

In accordance with theComprehensive Stormwater Management Program the Town developed an Illicit Discharge Detection and Elimination (IDDE) Program in Permit Year 2. Included in this submission is Section 6 from Blackstone's IDDE Plan which describes IDDE Tasks and schedule.

Part III. Summary of Minimum Control Measures

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) - Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities - Permit Year 3
1. Public Education and Outreach					
1-1	Provide Educational Materials to residents	Town Engineer	Blackstone will post information annually in the Blackstone Enlightener and through informational pamphlets (for example, see BMP 2-2)		
1-1	Revised	Town Engineer/ Blackstone Millville Regional School District - Science Department	Blackstone will Post information annually on the Town website and on the local access cable station.Blackstone will distribute informational pamphlets to residents (for example, see BMP 2-2)	The Town of Blackstone has provided website links regarding Storm Water Permit Requirements and Public Education About Storm Water on the Town website:http://www.epa.gov/NE/npdes/stormwater/http://cfpub.epa.gov/npdes/stormwater/cgp.cfm. The Town has provided the EPA/The Weather Channel video "After the Storm" to the local access cable station to air (see attached memo).	The Town of Blackstone will continue to provide website links regarding stormwater on the Town's website.The Town will continue to provide the educational programming to the local access cable station to air.Blackstone will distribute informational pamphlets to residents (for example, see BMP 2-2)
1-2	Evaluate Potential for Classroom Education	Blackstone Millville Regional School District - Science Department	Met with Blackstone Millville Regional School District - Science DepartmentEvaluate development of curriculum for high school students.	The Town Engineer has made a presentation to the high school ecology class to educate them on stormwater. The Town Engineer also provided the high school students with educational materials and website links to further their knowledge of stormwater.Based upon the above mentioned classroom education, the high school students are developing a stormwater educational video to be aired on the local cable station as well as a brochure that will be distributed to the community.	The Town Engineer will continue to meet with the Blackstone Millville Regional School District - Science Department.The Town Engineer and the Blackstone Millville Regional School District - Science Department will continue to evaluate development of curriculum for high school students.The Town Engineer and the Blackstone Millville Regional School District - Science Department will evaluate development of curriculum for elementary school students.

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) - Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities - Permit Year 3
2. Public Involvement and Participation					
2-1	Request feedback on the Storm Water Management Plan from Town Officials.	Town Engineer	Send letter requesting input on the Storm Water Management Plan to Town boards and officials.	The Town of Blackstone has completed an "Illicit Discharge Detection and Elimination (IDDE) Plan" report. Copies are available for review by town departments and the public.The Town Engineer is consulting with a private engineering consulting firm to give a presentation on the Phase II Stormwater Program	The Town Engineer will follow-up with the zoning board to discuss stormwater issues and coordinate a presentation on the Phase II Stormwater Program by a private engineering consulting firm to facilitate future Storm water Management Activities.
2-2	Informational Questionnaire to Residents	Town Engineer	Publish questionnaire in the Blackstone Enlightener requesting information about storm drain systems (e.g. if they are aware of pipes in their yard, foaming, discoloration)		The Town Engineer will develop a brief questionnaire for publishing in the Blackstone Enlightener.
2-3	Status Updates to Town Officials	Town Engineer	Present status update to municipal boards on annual basis	The Town Engineer has provided an update to Town Officials early 2005.	The Town Engineer will provide an update to Town Officials early 2006.The Town Engineer will coordinate with an engineering consulting firm to give a presentation on the Phase II Stormwater Program to the Planning Board and other local Town Officials to facilitate future Storm water Management Activities.

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) - Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities - Permit Year 3
3. Illicit Discharge Detection and Elimination					
3-1	Storm Sewer System - Existing Conditions	Town Engineer	The Town of Blackstone will prepare base maps.	Base Maps for the Town were prepared in permit Year 1. The Town has continued to coordinate with the Charles River Watershed Association, as they had been planning to locate major outfalls within the community. The Town of Blackstone has completed an Illicit Discharge Detection and Elimination (IDDE) Program as part of the Town's Comprehensive Stormwater Management Program. As part of the IDDE Program, the Town reviewed and inventoried all available plan data to support mapping of the storm drain system.Additionally, as part of the IDDE Program, the Town created a GIS base map. Utilizing existing plan data and information gathered in field survey the process of mapping existing outfalls on the GIS base map has begun. The Town also created a database describing the location of all outfalls and the names of all waters that receive discharges from those outfalls. The database of existing outfalls is included in this submission. Outfalls identified during field survey were digitally photographed.	The Charles River Watershed Association will no longer be locating major outfalls within the community, outfalls that have been located to date will be provided to the Town of Blackstone Engineering Department to plot on the base maps.As part of the IDDE Program, the Town of Blackstone will GPS survey outfalls and identify potential sources of illicit discharges beginning with prioritized areas identified in the IDDE Plan.
3-2	Request information from Town residents about illicit discharges.	Town Engineer	See BMP 2-2		

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) - Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities - Permit Year 3
3-3	Storm Sewer inspections	Town Engineer	1.- Develop inspection checklist. - 2. Prioritize inspections.- 3. Create database for existing conditions 4.- Identify source(s) of illicit discharge(s).	Catch Basin inspections continued throughout Permit Year 2 (see attached CB Inspection Form). A spreadsheet to inventory all drainage structures has been developed (see attached). Illicit discharges were detected during the course of the drainage structure inspections as well as part of a review of existing plan information. Dyed-water testing was utilized to determine the sources of the discharges (see attached). These sources were reported to the Board of Health (see attached). These illicit discharges have either been corrected or are in the process of being corrected with the support of the Town. The Town of Blackstone has completed an "Illicit Discharge Detection and Elimination (IDDE) Plan" report. The report prioritizes areas of town based upon the potential for illicit discharges.	The Town will continue to clean and inspect catch basins throughout the Town. Illicit discharges detected during inspections will be scheduled for correction.The database of existing conditions will continue to be updated.As part of the IDDE Program, the Town of Blackstone will GPS survey outfalls and identify potential sources of illicit discharges beginning with prioritized areas identified in the IDDE Plan. The Town Engineer will determine appropriate action based upon the response to the resident questionnaires (See BMP 2-2).
3-4	Develop improvement program	Town Engineer	Prepare improvement plan Evaluate repair costsPrioritize upgrades based on needs and costs.	No activity had been planned until Permit Year 3.The improvement plan will be based upon the existing roadwork plan. Drainage improvements will be made in tandem with the roadway work as necessary.	The Town will continue to develop the improvement plan based upon the roadway schedule. The CIP will be incorporated into the Pavement Management Program.

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) - Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities - Permit Year 3
3-5	Capital Improvement Plan	Town Engineer	1. Prepare multi-year capital improvement plan 2. Present plan to Capital Outlay Committee	No activity had been planned until Permit Year 4. However stormwater improvements are being included in on-going water and sewer construction projects.	No activity planned until permit year 4.
3-6	Implement Capital Improvement Plan	Town Engineer/DPW	Implement improvement program to the extent allowable within capital and operational means.	No activity planned until permit years 4/5.	No activity planned until permit years 4/5.
3-7	Enforcement procedures addressing illicit discharges	Planning Board	Blackstone will review whether local authority is appropriate and able to respond to potential illicit discharges. New by-laws, if necessary, will be proposed to Town Meeting.	The Town of Blackstone has completed an Illicit Discharge Detection and Elimination (IDDE) Program as part of the Town's Comprehensive Stormwater Management Program. As part of the IDDE Program, the Town has collected a variety of model bylaws that could be included in local by-laws for review.	Blackstone will review whether local authority is appropriate and able to respond to potential illicit discharges. New by-laws, if necessary, will be proposed to Town Meeting.

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) - Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities - Permit Year 3
4. Construction Site Stormwater Runoff Control					
4-1	Site plan review	Town Engineer/Planning Board	Meet with Planning Board to discuss storm water requirements	The Town Engineer sent a memo to the Planning Board suggesting that the Planning Board solicit proposals from consulting firms to provide the board with on-call engineering services for plan reviews (see attached memo). The Town of Blackstone has provided a website link regarding Storm Water Permit Requirements on the Town website (see attached memo).The Town of Blackstone has completed an Illicit Discharge Detection and Elimination (IDDE) Program as part of the Town's Comprehensive Stormwater Management Program. As part of the IDDE Program, the Town has collected a variety of model bylaws that could be included in local by-laws for review.The Town Engineer is consulting with a private engineering consulting firm to give a presentation on the Phase II Stormwater Program.	The Town Engineer will continue to plan and coordinate with the Planning board to establish a site plan review process.The Town Engineer will coordinate with an engineering consulting firm to give a presentation on the Phase II Stormwater Program to the Planning Board and other local Town Officials to facilitate future Stormwater Management Activities.Blackstone will review whether local authority is appropriate. New by-laws, if necessary, will be proposed to Town Meeting.

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) - Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities - Permit Year 3
4-2	Construction Storm Water Ordinance	Planning Board	Evaluate opportunities to modify planning bylaws to include storm water ordinance	The Town of Blackstone has completed an Illicit Discharge Detection and Elimination (IDDE) Program as part of the Town's Comprehensive Stormwater Management Program. As part of the IDDE Program, the Town has collected a variety of model bylaws that could be included in local by-laws for review.The Town Engineer is consulting with a private engineering consulting firm to give a presentation on the Phase II Stormwater Program.	The Town Engineer will coordinate with an engineering consulting firm to give a presentation on the Phase II Stormwater Program to the Planning Board and other local Town Officials to facilitate future Storm water Management Activities.Blackstone will review whether local authority is appropriate. New by-laws, if necessary, will be proposed to Town Meeting.
4-3	Enforcement	Planning Board	Evaluate inspection and enforcement opportunities	The Town Engineer is consulting with a private engineering consulting firm to give a presentation on the Phase II Stormwater Program.	The Town Engineer will continue to plan and coordinate with the Planning board to establish a site plan review process.The Town Engineer will coordinate with an engineering consulting firm to give a presentation on the Phase II Stormwater Program to the Planning Board and other local Town Officials to facilitate future Storm water Management Activities.

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) - Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities - Permit Year 3
5. Post-Construction Stormwater Management in New Development and Redevelopment					
5-1	Ordinance - Post-Construction	Planning Board/ DPW/ Town Engineer	Evaluate opportunities to modify planning regulations requiring contractors to guarantee work	No activity Permit Year 2.The Town Engineer is consulting with a private engineering consulting firm to give a presentation on the Phase II Stormwater Program.	The Town Engineer will coordinate with an engineering consulting firm to give a presentation on the Phase II Stormwater Program to the Planning Board and other local Town Officials.
5-2	Enforcement	Planning Board/ DPW/ Town Engineer	Evaluate inspection and enforcement opportunities	No activity Permit Year 2.The Town Engineer is consulting with a private engineering consulting firm to give a presentation on the Phase II Stormwater Program.	The Town Engineer will coordinate with an engineering consulting firm to give a presentation on the Phase II Stormwater Program to the Planning Board and other local Town Officials.

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) - Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities - Permit Year 3
6. Pollution Prevention and Good Housekeeping in Municipal Operations					
6-1	Employee Training	Town Engineer/DPW	Establish training needs and program for employees	Informal training provided in field during CB cleaning and other drainage projects.	Continue informal training. No plan for formal training program due to small size of DPW.
6-2	Street Sweeping Program	Town Engineer/DPW	Develop program and schedule for sweeping streets	There is an article at the Town Meeting to get a new street sweeper. Town obtained a sidewalk sweeper.Schedule for street sweeping developed based upon the snow and ice program.	The Town will continue to perform its street sweeping program based upon Town meeting approval of a new street sweeper. Otherwise the Town will evaluate opportunities to contract street sweeping services
6-3	Catch Basin Cleaning Program	Town Engineer/DPW	Develop program and schedule for cleaning storm drain systems	The Town continues to inspect catch basins, and filling out the CB inspection forms.	The Town will continue to inspect catch basins, and filling out the CB inspection forms.
6-4	Other Programs and Policies	Town Engineer	Evaluate need for other policies and programs that can improve stormwater quality	Blackstone applied for and received funding from the DEP recycling grant program for 2005.	The Town Engineer will coordinate with the Board of Health to provide educational brochures to residents promoting proper disposal of household hazardous waste. The Town of Blackstone will continue to apply for DEP's Recycling Grant Program. This grant will provide outreach material to the community.

6. IDDE Program Implementation

6.1 Coordination with Town Departments

A successful Stormwater Management Program depends on the participation of all Town departments, local businesses, local environmental action groups, and all Town residents. The ongoing implementation of Blackstone's Illicit Discharge Detection and Elimination (IDDE) Program requires the Town to complete the mapping of all storm sewer outfalls, inspect all outfalls for dry-weather flows, identify and remove the source of illicit and illegal discharges, adopt and enforce by-laws prohibiting illicit discharges to Blackstone's storm sewer system, and educate local businesses and residents on the dangers of illegal dumping.

Blackstone's Notice of Intent identified Measurable Goals that require championing by several municipal departments. The Board of Health schedules local hazardous waste collection days, thereby reducing the likelihood of illegal dumping. The Conservation Commission enforces the Massachusetts Department of Environmental Protection's Stormwater Management Policy. Phase II, however, requires Blackstone to develop, implement, and enforce a program to reduce pollutants in stormwater runoff from construction activities that disturb equal to or greater than one acre of land. Blackstone is also required to develop, implement, and enforce a program to reduce pollutants in post-construction runoff from construction activities that disturb equal to or greater than one acre of land. Participation by Planning Boards, Conservation Commissions, Building Inspectors, and Boards of Health are integral to the successful adoption and enforcement of these programs.

Education of and participation by Blackstone's residents are vital in successfully protecting Blackstone's local bodies of water and drinking water supply. Blackstone can provide for the distribution of educational materials regarding the impact on water quality of residential activities such as lawn fertilizing, disposal of household wastes, vehicle washing, and pet waste disposal. These materials are available from the Environmental Protection Agency's (EPA) website at www.epa.gov and Massachusetts Department of Environmental Protection Agency's website at www.state.ma.us/dep. Distribution opportunities include Town Meetings, School Activities, Transfer Station, Library, and local businesses.

The education and participation of local boards, committees, and the general public is crucial to the successful appropriation of resources and the successful adoption and enforcement of local water quality protection regulations.

Stormwater workshops for Town employees, public review of Blackstone's Comprehensive Stormwater Management Program, and the creation of a stormwater committee can contribute to the successful implementation of Blackstone's stormwater program, including Blackstone's Illicit Discharge Detection and Elimination (IDDE) Program.

6.2 Annual Requirements and Reporting

The Town of Blackstone is required to prepare an Annual Report. In Massachusetts, reports must be filed annually with EPA and DEP on May 1st in years 2004 through 2008 (inclusive). Appendix D contains Blackstone's first Annual Report.

6.3 IDDE Program

6.3.1 Town-Wide Base Mapping

In Phase 1 of Blackstone's Illicit Discharge Detection and Elimination Program (IDDE) Guertin Elkerton & Associates, Inc. (GE&A) developed a Town-wide map using available information from Massachusetts Geographic Information Systems (MassGIS). These maps prioritize drainage basins within the Town of Blackstone for investigation of potential illicit discharges. Mapping layers used to generate these maps include the following:

Town boundary (scale 1:12,000)

Hydrological features (scale 1:25,000).

Land use (scale 1:25,000).

Major basins (scale 1:24,000)

Sub-Basins (scale 1:24,000)

Soil Characteristics (scale 1:25,000)

TIGER Census 2000 Roads (1:100,000)

In order to inventory the existing storm sewer system GE&A proposes that a map book be created. This Map Book would divide the Town into ~12 tiles at a scale of 1" = 400'. Each tile will be presented as a 24" x 36" sheet. Using available Town data mapping layers and additional MassGIS data, the map book may include the following:

Town parcel map data

Massachusetts Highway Department (MHD) Roads (scale 1:100,000),

Roads and trails (scale 1:5000),

Train lines (scale 1:5000),

Topographic contours (scale 1:5000 or 3 meter intervals)

A description of data layers is available at http://www.mass.gov/mgis/laylist.htm.

This will provide GE&A with a base map upon which all subsequent data collected will be mapped.

Deliverable: A Map Book showing a base map for the entire Town of Blackstone at a scale of 1" = 400', and corresponding electronic files (.pdf).

6.3.2 Develop Stormwater GIS From Existing Data

Guertin Elkerton & Associates, Inc. proposes to complete the review of source documents begun in Phase 1 of the IDDE Program development. To date, approximately 750 stormwater features have been mapped using GPS and available town record drawings. After plans relevant to the stormwater system have been reviewed and stormwater structures have been mapped, GE&A will hold a meeting with relevant Town staff to review map features to that point. Any additional information that Town staff can provide regarding the location of storm sewer infrastructure will be sketched in by hand. This will expedite the field mapping and outfall inspection component of this project.

The estimated number of structures in Blackstone's storm sewer system is:

Outfalls:	120
Manholes & Catchbasins:	800

The map book will be updated to include stormwater features found in the Town inventory of record drawings as well as the approximate locations of stormwater infrastructure as identified by Town staff.

Deliverable: An updated Map Book showing approximate locations of stormwater structures and corresponding electronic files (.pdf, .shp, .dxf).

6.3.3 Field Verification

Guertin Elkerton & Associates, Inc. proposes to locate stormwater structures not identified in Section 6.3.2 of this report using Global Positioning System (GPS) technology. Based on the supplied estimates of catch basins and manholes and that approximately 95% of all such structures have already been mapped, a plan for the field verification process will be supplied with an estimate of 3 days of field work to collect the remaining 5%. GE&A will conduct GPS collection at better than 1:100 scale accuracy using town supplied GPS equipment. This GPS and database collection hardware and software will be returned to the Town at the end of the collection program. This will enable the town to continue collecting features and updating the GIS database after the project is completed.

The location, as collected by GPS, of catchbasins and manholes in the storm sewer system will be presented in an updated map book along with a data table with northings, eastings and elevations based on the Massachusetts Mainland State Plane coordinate system, which is recognized and used by the Massachusetts Highway Department. All data collected during this task can be readily incorporated into existing GIS efforts.

Deliverable: An updated Map Book and data table presenting GPS surveyed locations of stormwater structures and corresponding electronic files (.pdf, .shp, .dxf).

6.3.4 Outfall Location and Inspections

Guertin Elkerton & Associates, Inc. proposes to perform outfall field inspections for the purpose of identifying potential illicit connections to the stormwater system.

The following data will be obtained or verified for each outfall:

- Structure Type
- Size
- Material
- Condition
- Observable Flow
- Signs of Illicit Connections

GE&A will attempt a visit to each location once, on the assumption that outfall location survey and inspection can be conducted simultaneously. If an outfall is inaccessible, this fact will be noted.

As required by the Phase II Stormwater Program, GE&A will provide the Town of Blackstone a table listing all outfalls with an outfall ID #, location, and receiving water body. In addition, information regarding the outfall will be documented along with photographs of the outfall as well as sampling reports where appropriate.

Deliverable: A tabulated inventory of outfalls, with photographs, inspection summaries and sampling results for each outfall.

6.3.5 Identify Sources of Illicit Discharges

In Task 6.3.1, Guertin Elkerton & Associates, Inc. prepared a map of the Town of Blackstone showing receiving bodies of water and drainage basins and identified potential "hot spots" using land use activities and local knowledge. In Task 6.3.4 dry weather flows from outfalls will be observed for odor, color, turbidity, floatable matter, stains, vegetation, and damage to outfall structure. Flows may also be sampled for the presence of fecal coliform.

Since the number of flowing outfalls (if any) is unknown, a budget is recommended for sampling and other procedures in an attempt to identify and remove the source of the illicit discharge. Other procedures may include manhole and up the pipe storm drain inspections, dye testing, video, inspection, and smoke testing. Efforts beyond what is feasible within the original budget will be described in section 6.3.6

Deliverable: A report documenting the attempts to identify sources of illicit discharge.

6.3.6 Plan to Follow-Up on Dry Weather Flows

Guertin Elkerton & Associates, Inc. proposes to prepare a plan with recommendations and costs for additional follow-up to investigate sources of dry-weather flows. The plan will serve as a resource document for the Town to use when future dry weather flows are identified.

The plan will include the following:

- Inspection and documentation procedures
- Sampling and analysis procedures to verify if dry weather flows are contaminated

- Procedures and estimated costs to pinpoint illicit discharges.

Procedures include:

- Notification process
- Manhole and up the pipe storm drain inspections
- Dye testing
- Video inspection
- Smoke testing

Summary of identified illicit discharges, the specific tasks recommended for follow-up, and estimated implementation costs.

Guertin Elkerton & Associates, Inc. proposes to review the plan with appropriate local officials. GE&A will present the plan and the results of mapping and outfall inspection at a public meeting. Five copies of the plan will be provided to the Town.

Deliverable: A plan administering courses of action for the elimination of illicit discharges not addressed in 6.3.5 and in the future.

6.3.7 Public Outreach and Education

Guertin Elkerton & Associates, Inc. proposes to facilitate a stormwater work session with relevant Town departments. The NPDES Phase II Comprehensive Stormwater Management Program requires the participation of multiple Town departments in order to be successful. The Board of Selectmen, Department of Public Works, Board of Health, Conservation Commission, Planning Board, Emergency Response, and other Town departments play critical roles in insuring the protection of local water quality.

Blackstone's Comprehensive Stormwater Management Program will be reviewed with emphasis on the Town's Measurable Goals, schedule of implementation, and responsible departments.

Literature and brochures reviewing stormwater best management practices (BMPs) prepared by environmental agencies or associations will be distributed at the work session. Departments can copy and distribute to the public at large.

Deliverable: Workshops and literature reviewing stormwater best management practices.

6.3.8 Illicit Discharge and BMP By-Laws

Guertin Elkerton & Associates, Inc. proposes to review with the Town, the Town's desire to secure professional assistance in the development of local by-laws and regulations prohibiting illicit discharges into the storm sewer system. If GE&A's assistance is desired, GE&A will submit a proposed budget reflecting the requested level of services.

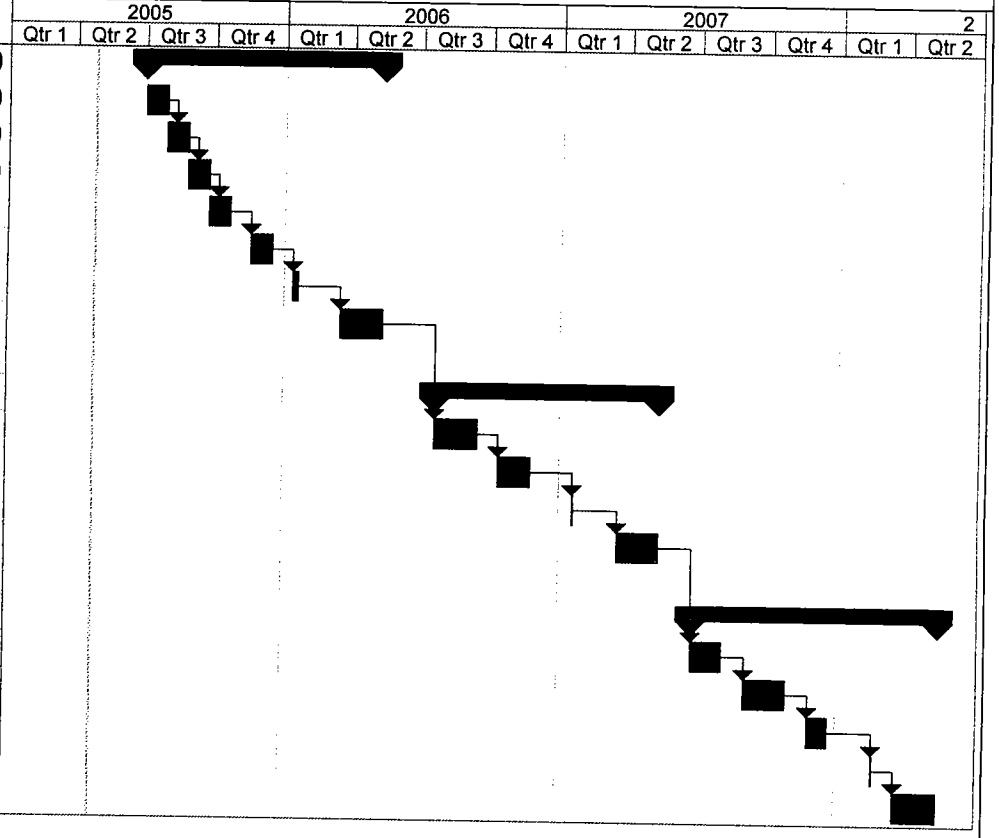
6.3.9 Annual Report

Guertin Elkerton & Associates, Inc. proposes to assist the Town in the preparation and submission of Blackstone's Stormwater Annual Report to the Environmental Protection Agency and the Massachusetts Department of Environmental Protection due annually on May 1.

Deliverable: A report submitted to both MADEP and EPA describing the Town of Blackstone's success at implementing the Comprehensive Stormwater Management Program.

TOWN OF BLACKSTONE, MASSACHUSETTS
PROPOSED PHASED APPROACH TO STORMWATER COMPLIANCE PROGRAM

ID	Task Name	Estimated Cost
1	**Phase I**	**$23,000**
2	Base Mapping	$2,500
3	Develop Stormwater GIS (map based)	$2,500
4	GPS Field Verification	$4,000
5	Outfall Inspections	$5,000
6	Identify DWF sources	$4,500
7	Stormwater Workshop	$2,000
8	Prepare Annual Report	$2,500
9		
10	**Phase II**	**$16,000**
11	Outfall Inspections cont'd	$6,000
12	Identify DWF Sources cont'd	$5,500
13	Stormwater Workshop	$2,000
14	Prepare Annual Report	$2,500
15		
16	**Phase III**	**$21,000**
17	Outfall Inspections cont'd	$6,000
18	Identify DWF Sources cont'd	$5,500
19	Dry Weather Flow Follow Up Plan	$5,000
20	Stormwater Workshop	$2,000
21	Prepare Annual Report	$2,500



Project: Phased IDDE Recommendations - BLK - Date: 4/25/05

Task Summary

S:/53270.00/Phased Recommendations BLK

GUERTIN ELKERTON & ASSOCIATES, INC.

Memorandum

To: Paul Jacobs

From: Wayne Bates

RE: Storm Water Video

Date: March 10, 2005

Paul,
Thanks for agreeing to air the enclosed video.

I would like to show this video for the next couple weeks and again in late April/May if possible.

The run time is approximately 22 minutes.

The introduction to the video should go as follows:

> *The Blackstone Engineering Department is proud to present "After the Storm" – a video about the growing concerns about storm water runoff and pollution. We all live in a watershed and we all play an important role in protecting our water resources from polluting storm water runoff.*
>
> *This video is intended to serve as an educational and awareness tool for the residents of Blackstone. If you have any questions or concerns about storm water pollution, please feel free to contact the Blackstone Engineering Department at 508-883-9331.*
>
> *This video has been co-produced by the EPA and the Weather Channel.*

Please contact me if you have any questions at 508-883-9331

S:\Stormwater-MS4\Correspondence\Internal\M050310_afterthestorm.doc

Table 2-5 : Database of Existing Outfalls

Outfall #	Location	Receiving Water Body
1	Turbesi Park	Harris Pond
2	Behind HWY Dept	Harris Pond
3	Not Used	NA
4	Milton St	"Ice House Pond" to Harris Pond
5	Carter St.	"Ice House Pond" to Harris Pond
6	13 Farm St.	Harris Pond
7	Arnold St.	Reid Pond
8	Paul St	Harris Pond
9	St. Charles Cemetery	Rush Pond

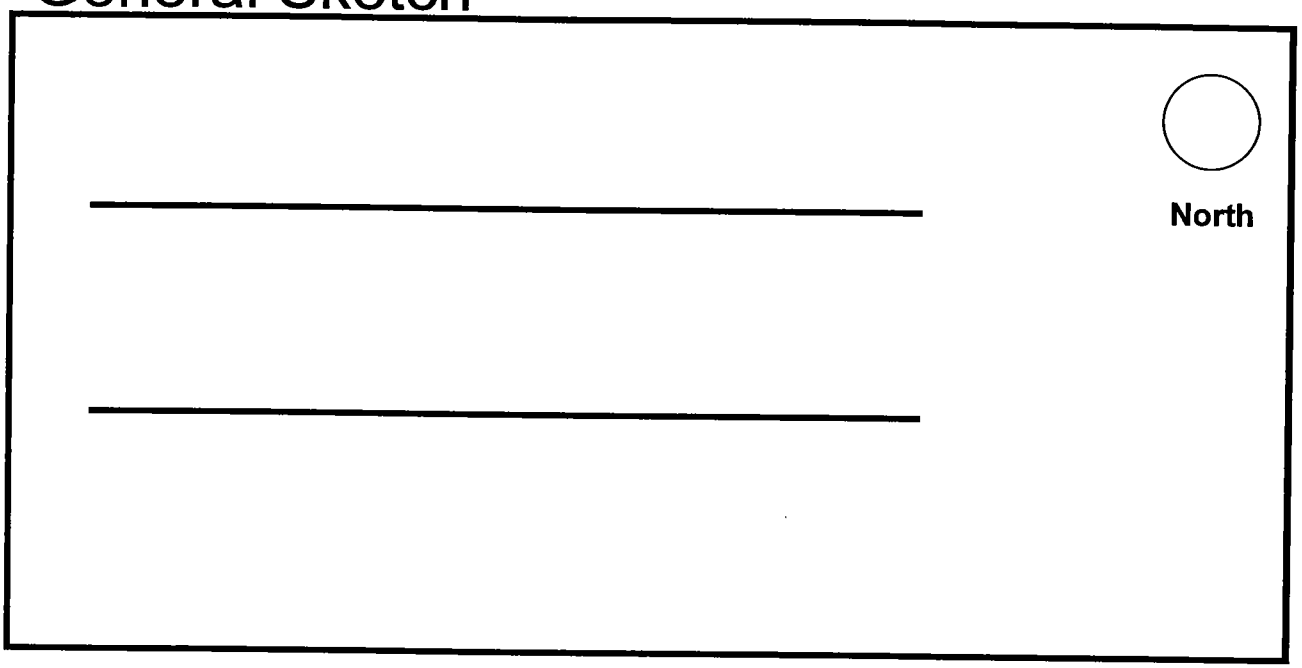
Catch Basin Inspection Form

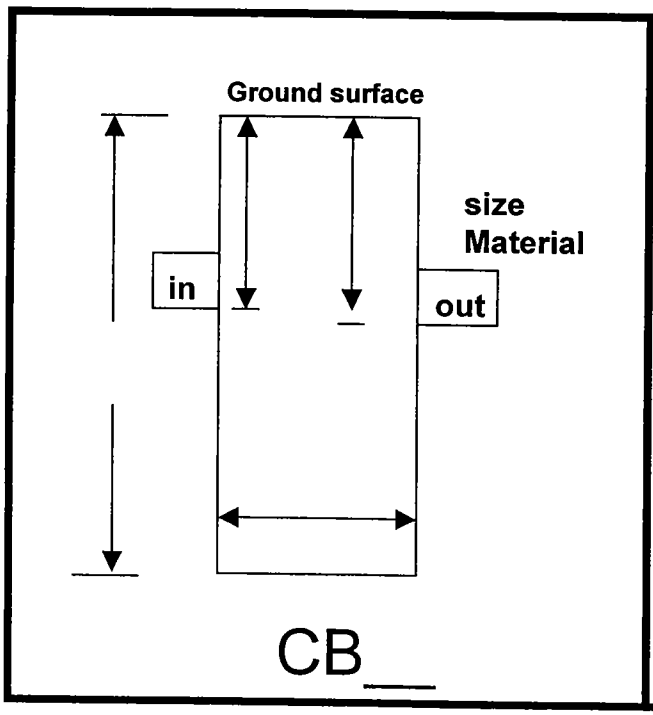
Street: _____

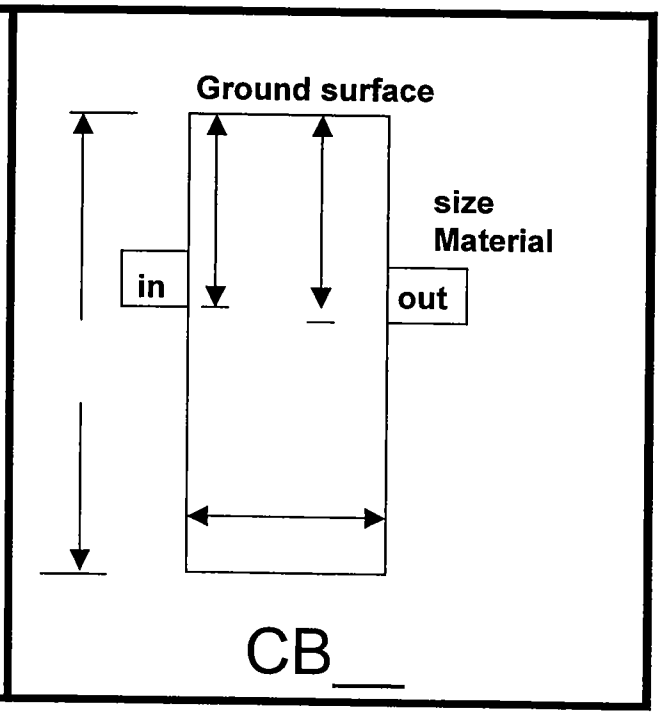
Date: _____ Inspected by: _____

Cleaned? Yes No

General Sketch







Town of Blackstone Drainage Structures Inventory Summary

Street Name	Plat #	Street Location	Book #	Inventory Book Page #	Catch Basins	Double Catch Basins	Man Holes	Total Structures
Alice Ave.	14	off Blackstone St.			Private	Property		
Arnold St.	5	off Rhode Island Ave.	1	12	3	0	0	3
Ascension St.	7	b/t Blackstone St. and Federal St.						
Auclair St.	1	off Lloyd St.	1	117	0	0	0	0
Austin St.	9	off Main St.	1	119	2	0	5	7
Autumn Ln.	22	off Summer St.	1	49	6	0	3	9
Bellingham Rd.	18, 19, 20	off Elm St.						
Blackstone St.	7, 14, 22, 30	off Main St.						
Bridge St.	8	off Main St.	1	97	2	0	3	5
Butler St.	10	off Main St.	1	105	2	0	6	8
Canal St.	8, 10	off Old Mendon St.	1	120	10	0	6	16
Carol Ln.	30	b/t Handy Rd. and Elm St.	1	44-45	18	0	10	28
Carrington St.	10	b/t Main St. and County St.	1	107	0	0	2	2
Carter Ave.	1	b/t Rathbun St. and Edge Water Dr.	1	113	3	0	0	3
Castagnaro Way	21	off Farm	1	47	7	0	2	9
Centennial Dr.	27	b/t Crestwood Dr. and Liberty Hill Dr.	1	39	12	0	6	18
Chad Michael Ct.	11	off Lincoln St.	1	65	6	1	4	11
Champlain Ave.	2	b/t Rathbun St. and Edgewater Dr.	1	59	3	0	0	3
Cheney St.	1	b/t Rathbun and Lloyd St.	1	89	0	0	0	0
Chestnut St.	24	b/t Milk St. and Union St.						
Church St.	10	off Main St., west of Mendon St.	1	95	1	0	3	4
Cylde St.	6	west of Rayner St.	1	71	0	0	0	0
Connecticut Ave.	4	b/t Rayner St. and Power St.	1	5	1	0	0	1
County St.	10	b/t Butler St. and Staples Ln.	1	102	3	0	7	10
Crestwood Dr.	27	b/t Mendon St. and Liberty Hill Dr.	1	37-38	21	0	12	33
David Dr.	3	b/t Rathbun St. to Dorena Dr.	1	55	4	0	1	5
Dawes St.	14	off Mendon	1	16	6	0	1	7
Dawn St.	14	off Lincoln St.	1	14	2	1	5	8
Devlin Cir.	6	in Castle Hill			Private	Property		
Diana St.	1	off Rathbun	1	88	2	0	1	3
Dollard St.	2	off Rathbun	1	58	0	0	0	0
Dorena Dr.	3	off Rathbun	1	56	4	0	1	5
Early Village Dr.	14	off Alice Ave.			Private	Property		
Edge Water Dr.	1, 2, 5	next to Harris Pond						
Elm St.	17, 18, 20, 21, 30	off Blackstone St.						
Elmwood St.	2	off Rathbun St.	1	112	0	0	1	1
Ethel St.	1	off Rathbun	1	92	0	0	1	1
Fairway Ln.	6	in Castle Hill			Private	Property		
Farm St.	4, 5, 16, 17, 21, 22	b/t Blackstone St. and Gaskill St.						
Farnum St.	8	off St. Paul St.	1	76	0	0	2	2
Federal St.	7, 15, 16	b/t Main St. and Summer St.						
First Ave.	8	off Main St.	1	82	1	0	1	2
Florence Dr.	14	off Blackstone St.	1	24	4	0	1	5
Florence Dr. North	14	off Blackstone St.	1	26	2	0	0	2
Fox Brook Mnr.	9	off Austin St.			Private	Property		
Fox Hill Rd.	20	off Bellingham Rd.	1	53	6	0	2	8
Freeman St.	2	off Elmwood St. (Paper)	1	116	0	0	0	0
Gaskill St.	4, 6	off North Main St.	1	122	2	0	3	5
Goddard St.	10	b/t Carrington St. and Main St.	1	104	5	0	2	7
Handy Rd.	30	b/t Blackstone St. and Elm St.	1	46	1	0	1	2
Harkness Rd.	????	??????						
Harris Pond Rd.	1, 2	off Carter St.	1	61	0	0	0	0
Hill St.	7	off Ascension St.	1	98	0	0	0	0
Hop Brook Ln.	22	off Farm St.	1	48	3	0	0	3
Howard St.	9	off Main St.	1	78	0	0	2	2
Hoyle St.	6	in Castle Hill			Private	Property		
Huntington Ave.	7	off Main St.	1	124	0	0	0	0
Indian Run Rd.	19	near Lakeshore Dr.	1	129	0	0	0	0
Ingrid Dr.	30	off Blackstone St.	1	41	4	1	3	8
Ives St.	10	b/t Butler St. and Washington St.	1	103	2	0	2	4
Jean St.	3	off Rathbun St.	1	109	0	0	0	0
Jefferson St.	9	off Mendon St.	1	93	3	0	0	3
Kanatha St.	1, 2	b/t Carter Ave. and Montclam Ave.	1	64	0	0	0	0

Town of Blackstone Drainage Structures Inventory Summary

Street Name	Plat #	Street Location	Book #	Inventory Book Page #	Catch Basins	Double Catch Basins	Man Holes	Total Structures
Kimberly Ln.	14	off Reilly Ave.	1	19	3	0	4	7
King Ave.	1, 2	b/t Carter Ave. and Montclam Ave.	1	114	0	0	0	0
King St.	2, 3	b/t Dollard St. and Dorena Dr.	1	57	2	0	0	2
Lakeshore Dr.	19	off Marszalkowski St.	1	128	1	0	0	1
Lakeview St.	1	b/t Rathbun St. and Shore Dr.	1	86	0	0	0	0
Laurel Rd.	30	off Spruce St.	1	43	4	0	1	5
Ledgebrook Dr.	6	in Castle Hill			Private	Property		
Lewiston St.	4	off Mayboro St.	1	8	0	0	0	0
Liberty Hill Dr.	27	b/t Milk and Crestwood	1	35-36	22	0	12	34
Lincoln St.	11, 13, 23	off Summer St.						
Lloyd St.	1	b/t Ethel St. and Diana St.	1	90	2	0	0	2
Main St.	7, 8, 9, 10	off Mendon St. and Blackstone St.						
Mandy Dr.	11	b/t Chad Michael Ct. and Tee Jay Ln.	1	67	3	2	4	9
Mann St.	3	off Rathbun St.	1	118	0	0	0	0
Maple Dr.	1	off Shore Dr.	1	85	0	0	0	0
Marcel Ln.	19	off Lakeshore Dr.	1	126	0	0	0	0
Marie Dr.	20	off Bellingham Rd.	1	52	0	0	0	0
Mark Dr.	14	off Reilly Ave.	1	22	3	0	4	7
Market St.	8	off Main St.	1	83	4	0	1	5
Marszalkowski St.	19	off Bellingham Rd.	1	127	0	0	0	0
Mason St.	9	b/t Main St. and Prospect St.	1	80	0	0	0	0
May St.	6	off Gaskill St.	1	72	0	0	0	0
Mayboro St.	4, 5	b/t Connecticut Ave. and Rhode Island Ave.	1	7	1	0	0	1
Mendon St.	10, 14, 13, 23, 25, 26, 27	off Main St.						
Michelle Ln.	14	off Blackstone St.	1	23	4	2	7	13
Middle St.	10	off Main St.	1	96	0	0	2	2
Milk St.	13, 24, 25, 27	off Blackstone St.						
Mill River St.	4	off Farm St.	1	100	0	0	1	1
Mill St.	8	off Woonsocket part of Canal St.	1	121	0	0	0	0
Miller Ave.	2, 3	off Rathbun St. on plat 2	1	110	6	0	0	6
Miller St.	1	b/t Ethel St. and Diana St.	1	115	0	0	0	0
Milton Ave.	1	off Harris Pond Rd.	1	60	1	0	0	1
Milton St.	1	b/t King Ave. and Rathbun St.	1	63	0	0	0	0
Monica Ln.	16	in Rocco Dr.	1	32	4	0	4	8
Montcalm Ave.	2	b/t Rathbun St. and Edgewater Dr.	1	62	3	0	1	4
Nancy Ct.	14	off Reilly Ave.	1	21	6	0	6	12
New York Ave.	4	off Mayboro St.	1	4	2	0	0	2
North Main St.	4	off intersection of Gaskill St. and Farm St.	1	123	0	0	4	4
Oak Pl.	9	off Main St.	1	79	0	0	1	1
Old Mendon St.	10	off Main St.	1	84	0	0	1	1
Orange St.	4	off Rhode Island Ave.	1	9	0	0	0	0
Orchard St.	12	off Lincoln St.						
Park St.	16	b/t Summer St. and Farm St.						
Patricia Dr.	14	off Dawn St.	1	15	1	1	0	2
Paul Dr.	5	off Farm St.	1	101	2	0	0	2
Pickering Rd.	17	off Farm St.	1	33	0	0	0	0
Pinhurst St.	5	off Rhode Island Ave.	1	10	1	0	0	1
Pleasant St.	9	b/t Main St. and Prospect St.	1	77	0	0	1	1
Power St.	4	b/t Rathbun St. and Connecticut Ave.	1	3	3	0	0	3
Prospect Ave.	?????	???????						
Prospect St.	9	b/t Mason St. and Pleasant St.	1	81	0	0	5	5
Putnam St.	4, 5	off Rhode Island Ave.	1	11	1	0	0	1
Quickstream St.	18. 19	off Bellingham Rd.	1	130	0	0	0	0
Rathbun St.	1, 2, 3	off Diamond Hill Rd.						
Rayner St.	4, 6	off Gaskill St.	1	13	5	0	1	6
Reilly Ave.	14	b/t Mendon St. and Main St.	1	18, 20	17	0	25	42
Rennie Dr.	21	b/t Farm St. and Summer St.	1	34	8	1	6	15
Residential Ln.	23	off Lincoln St.	1	27-28	20	0	17	37
Rhode Island Ave.	5	b/t Farm St. and Mayboro St.	1	99	1	0	0	1
Richmond St.	1	b/t Rathbun St. and Lloyd St.	1	91	1	0	0	1
Rivers Edge Rd.	8	off St. Paul St.	1	75	0	2	3	5
Roberta Rd.	14	b/t Florence Dr. and Florence Dr. North	1	25	4	0	1	5
Rocco Dr.	6, 16	off Federal St.	1	29-31	23	0	40	63
Shore Dr.	1	off Carter Ave.						

Town of Blackstone Drainage Structures Inventory Summary

Street Name	Plat #	Street Location	Book #	Inventory Book Page #	Catch Basins	Double Catch Basins	Man Holes	Total Structures
Social St.	1	off Richmond St.						
Spruce St.	30	off Blackstone St.	1	42	9	0	6	15
St. Germain Ave.	19	off Lakeshore Dr.	1	125	0	0	0	0
St. Paul St.	7, 8	off Main St.						
Staples Ln.	10	b/t County St. and Main St.	1	108	0	0	1	1
State St.	6	off Gaskill St.	1	68	0	0	0	0
Summer Pl.	6	off Gaskill St.	1	70	0	0	0	0
Summer St.	21, 22, 23	b/t Elm St, and Lincoln St.						
Susan Dr.	22	off Blackstone St.	1	50	4	0	3	7
Swift St.	6	b/t Rayner St. and Summer Pl.	1	73	0	0	0	0
Tee Jay Ln.	11	off Lincoln St.	1	66	5	2	2	9
Union St.	24, 25, 26	off Mendon St.						
Valley St.	1	b/t Shore Dr. and rathbun St.	1	87	6	0	2	8
Warner St.	6	off Gaskill St.	1	69	0	0	0	0
Washington St.	10	b/t Ives St. and Main St.	1	106	1	0	3	4
Westminster St.	2	off Rathbun St.	1	111	0	0	0	0
Whipple Ave.	4	b/t Farm and Mayboro St.	1	6	2	0	0	2
Wilbur St.	14	off Dawes St.	1	17	0	0	0	0
William St.	6	b/t Warner St. and May St.	1	74	0	0	0	0
Windsong Dr.	27	off Milk St.	1	40	10	0	5	15
Windsor Rd.	20	off Fox Hill Rd.	1	54	4	0	2	6
Woodcrest Ln.	20	off Bellingham Rd.	1	51	4	0	1	5
Totals					**354**	**13**	**276**	**643**

Town of Blackstone
BOARD OF HEALTH
15 St. Paul Street
Blackstone, Massachusetts 01504
Tel: (508) 883-1500 Ext. 129 • Fax: (508) 883-6335

WILLIAM T. WALSH
Chairman

29 November 2004

Mr Thomas M. Dunayeski
616-618 Rathbun Street
Blackstone, MA 01504

Re: Mandatory Sewer Tie-in

Dear Mr. Dunayeski,

Please be advised that the Blackstone Sewer Department performed a die test on your property and determined that your septic systems were tied into the drain line that runs behind the buildings on your property. Said drain line and/or "magic pipe" drains into a storm pipe which flows into the City of Woonsocket's secondary drinking water supply.

Therefore, based upon the foregoing the Board of Health at their 23 November 2004 meeting voted to order the immediate tie-in of your property into the Town 's sewer system on or before 15 December 2004.

Hearing – 410.850 Right to a Hearing Enclosed

Sincerely,

William Walsh

William T. Walsh, Chairman
Board of Health

x Tom Dunayeski
M. Walsh PTCM. 11 11-29-04 1645

Memorandum

To: Board of Health – Chairman Walsh

C: Town Administrator; Millerville Construction Inspector

From: Wayne Bates

RE: 7 Valley Street – Domestic Wastewater Discharge to Storm Water System

Date: June 2, 2004

During sewer construction and installation on Valley Street, a distinct sewer odor was observed from a catch basin structure on Valley Street near Rathbun Street. Dye was introduced to the toilet at 7 Valley Street and it was determined that this facility connects to the storm water drainage system that discharges directly into Harris Pond. This is the second property identified as having a domestic wastewater discharge directly to this drainage system (please refer to my memo dated December 18, 2003 regarding 620/626 Rathbun Street).

Under the National Pollutant Discharge Elimination System (NPDES) storm water discharge permit for the Town of Blackstone storm water system, the Town is obligated to develop a plan to remove illicit discharges such as these from our storm water system. I would like to work with the Board of Health, and other town boards, to develop the appropriate ordinances or policies to require owners of illicit discharges to address the issue(s). Please contact me at your earliest convenience to discuss the potential options. I can be reached at 508-883-9331 or 508-883-3034.

More information about storm water discharge permits can be found on the EPA website www. Epa.gov/region1.

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Memorandum

To: Board of Health – Chairman Walsh

From: Wayne Bates

RE: 626 Rathbun Street

Date: December 8, 2003

During sewer construction and installation on Lakeview Street, an unmarked vitrified clay pipe was discovered at the corner of Lakeview Street and Rathbun Street. The existing pipe had a distinct sewer odor and the liquid flowing in the pipe appeared to contain domestic wastewater.

It is believed that this pipe eventually discharges to Harris Pond, however there are no plans on file at the Blackstone Engineering Department. Upon inspection, the pipe appeared to come from the St. Teresa Parish, across the backyards of the properties located at 620 Rathbun Street and 626 Rathbun Street. Dye testing showed that the basement sink at 626 Rathbun Street is connected to this pipe. Dye testing at 620 Rathbun Street property did not indicate domestic discharges come from this property. Due to time constraints, dye testing was not conducted at the St. Teresa's buildings. St. Teresa's connected to the sewer system this past fall, however it is possible that basement floor drains in the building are connected to the storm drain system.

Sewer is available for the property at 626 Rathbun Street. The Engineering Department recommends that the Board of Health issue a letter requiring the property owner at 626 Rathbun Street to connect to the sewer. In addition, we recommend that dye testing be conducted at St. Teresa's to confirm that floor drains are not connected to this storm drain system. The Engineering Department would be happy to assist the parish in conducting this dye testing.

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TOWN OF BLACKSTONE

ENGINEERING DEPARTMENT
BLACKSTONE, MASSACHUSETTS 01504

Wayne E. Bates, Ph.D., P.E.
Town Engineer
Tel. 508-883-9331
Fax 508-883-3796

February 10, 2005

TO: Planning Board

FM: Town Engineer

RE: Sample RFQ for Consultant Services to the Planning Board

Dear Board Members:

In a recent conversation with Gerry Rivet, I recommended that the Planning Board solicit proposals from consulting firms to provide your Board with on-call engineering services for subdivision reviews. Attached please find a sample Request for Proposals (RFP) from the Town of Medway. I would suggest that your Board prepare a similar advertisement in an effort to obtain consultant services. I would be happy to participate in the selection process, however I feel strongly that your Board should find a consultant that you are comfortable with and that you can trust to provide you with sound engineering input.

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1 2 2005

Memorandum

To: Planning Board and Zoning Board

C: Board of Selectmen

From: Wayne Bates

RE: Storm Water Permits for Construction Projects

Date: March 11, 2004

Attached please find information about the EPA storm water regulations as they pertain to construction activities. Please advise applicants that these regulations apply to any project that will disturb one acre or more of land, regardless of whether the Planning Board or Zoning regulations apply.

If applicants have questions about the regulations and their applicability, please provide them with the EPA storm water website address for construction activity, which is as follows: http://cfpub.epa.gov/npdes/stormwater/cgp.cfm

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