TOWN OF WESTFORD
ENGINEERING DEPARTMENT

JOHN R. LIVSEY, P.E.
Town Engineer

PAUL M. STARRATT, E.I.T.
Assistant Town Engineer

To: John R. Livsey, P.E.
From: Paul Starratt
Re: Stormwater Phase II Illicit Discharge Testing
Date: March 28, 2006

I am pleased to report that our Illicit Discharge Detection and Elimination program has taken a significant step forward. I have attached the preliminary findings of the Westford Watershed Study for 2005 prepared by the Westford Environmental News and Action Committee (WENAC). As a reminder, WENAC is a nonprofit volunteer organization of citizens that cooperated with the Organization for the Assabet River (OAR) in a study of the following watersheds in Westford:

1. Keyes
2. Blue/Gilson
3. Stony Brook
4. Boutwell
5. Tadmuck
6. Vine
7. Nonset
8. Butter
9. Nashoba Brook

As you will see from the attached findings, WENAC has sampled nine (9) streams in the above referenced watersheds and tabulated test results for Ammonia, TKN, Nitrates, Ortho-Phosphorus, Total Phosphorus and Total Nitrogen. The samples were collected under OAR's EPA-approved Quality Assurance Project Plans (QAPP) and will give us a reasonable baseline for measuring the effectiveness of illicit discharge elimination.

With your approval, I will use the WENAC test results along with the new GIS outfall map to target areas of concern for the next round of dry weather outfall sampling.

E:\NPDES\Illicit Discharge Memo PMS-JRL.doc

Engineering Department
55 Main Street • Westford, MA 01886-2597
Tel. (978) 692-5520 • (978) 692-5517 • Fax (978) 399-2726

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ENGINEERING DEPARTMENT

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Assistant Town Engineer

April 5, 2006

Westford Environmental News
and Action Committee (WENAC)
10 Snow Drive
Westford, MA 01886
ATTN: Mr. Peter Severance

Dear Mr. Severance:

Thank you for providing the Engineering Department with a copy of the WENAC water quality report for 2005. This information will be very useful in determining priorities for illicit discharge detection and elimination.

As you are aware, the Town of Westford has filed a Notice of Intent with the EPA and MDEP as a part of the National Pollution Discharge Elimination System (NPDES). One of the requirements outlined in the NPDES permit is the determination of areas for dry weather outfall testing. Your sampling and test results will help us identify upstream locations for priority testing. Instead of relying on the trial-and-error method, your empirical data allows us to make informed decisions on where outfalls should be tested by the Town.

It is especially useful that you are teamed up with the Organization of the Assabet River (OAR) who uses an EPA-approved Quality Assurance Project Plans (QAPP). That means that the test results will give us a reasonable baseline for measuring the effectiveness of illicit discharge elimination.

Please let me know if the Engineering Department can be of assistance in the implementation of future monitoring and sampling.

Sincerely,

John R. Livsey, P.E.
Town Engineer

pms/JRL

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Municipality/Organization: Town of Westford, MA

EPA NPDES Permit Number: MAR05C490

MADEP Transmittal Number: W-035577

Annual Report Number
& Reporting Period: No. 3: May 1, 2005-April 30, 2006

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Paul Starratt Title: Assistant Town Engineer

Telephone #: 978-399-2716 Email: pstarratt@westford.mec.edu

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:

Printed Name: Steven L. Ledoux

Title: Town Manager

Date: April 28, 2006

Part II. Self-Assessment

The Town of Westford has completed the required assessment and determined that our municipality is in compliance with all permit conditions, except for the following: permit eligibility with respect to endangered species and historic places. The Town has completed 85% of mapping stormwater outfalls and begun the permit process for compliance with the Natural Heritage and Endangered Species Program and the Massachusetts Historical Commission.

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
1A	Stormwater Flyer for Residents	SuAsCo & Westford DPW	Flyers distributed to 75% of residents, compiled & considered "survey" results.	Flyers were mailed in year 1 to all residents. The same flyers were placed on display at the Town Hall.	Continue displaying flyers at public places.
Revised					
1B	Lesson Plan for 5th Graders	SuAsCo & Westford DPW	Develop & distribute lesson plan, teach in one or more grade 5 classes.	The Westford Engineering Department continued to use the SuAsCo curriculum "Stormwater Matters" to teach an introductory lesson plan to all grade 5 classes during the 2006 Living Lab program.	The Westford Engineering Department has elected to continue the lesson plan on an annual basis with assistance from local schools.
Revised			Continued beyond Year 2 based on success of program.		
1C	Stormwater Flyer for Businesses	SuAsCo & Westford DPW	Flyers distributed to 50% of businesses, stormwater logo displayed by 25% of businesses.	Received Media Toolkit in April 2006. Press releases will be distributed to local media in Year 4 reporting period. Board of Selectmen will be consulted for appropriate use of "Storm Water Matters" banner supplied by SuAsCo for display in Year 4.	Press release prepared by SuAsCo Stormwater Community Assistance Program.
Revised	*Media Toolkit and Stormwater Powerpoint program*		Year 3 product changed by SuAsCo to Media Toolkit in place of business flyer.		

2B	Poster Contest for Fifth Grader	SuAsCo & Westford DPW	Poster contest is held and entries are received, judged and displayed in year 2.	The stormwater poster contest was introduced as part of the "Stormwater Matters" lesson plan that was taught to all grade 5 classes in April 2005.	NOI specified to complete this BMP in Permit Year 2. Completed in Year 3 as revised.
Revised			Beginning of year 3.		
2C	Poster Contest for High Schoolers	SuAsCo & Westford DPW	Poster contest is held and entries are received, judged and displayed in year 3.	NOI specified to begin this BMP in Permit Year 3. Eliminated from Year 3 product by SuAsCo.	No further activities are planned.
Revised		Eliminated from Year 3 product by SuAsCo.			
2D	Local Stormwater Summit Event	SuAsCo & Westford DPW	Hold local multi-community summit in year 4.	NOI specified to begin this BMP in Permit Year 4.	NOI specified to begin this BMP in Permit Year 4.
Revised					
2E	Stormwater Super Summit Event	SuAsCo & Westford DPW	Municipal participation in the Super Summit, stormwater "survey" to 75% residents, compiled & considered results.	NOI specified to begin this BMP in Permit Year 5.	NOI specified to begin this BMP in Permit Year 5.
Revised					
2F	Curbside Recycling	Department of Public Works	Continued Town service.	Curbside recycling was picked up every other week.	Continue program for permit years 3-5.
Revised					
2G	In Town HHW Drop-off	Department of Public Works	Hold at least one event per year.	A household hazardous waste collection event will be held in the Fall of 2006.	Hold one HHW event and track waste quantities received.
Revised			Every other year.		
2H	HHW Drop-off in Lexington	Department of Public Works	Advertise service on the Town website and in flyers.	This service is no longer available to residents.	No further activities are planned.
Revised					
2I	Leaf Drop-off at Laughton's Nursery	Department of Public Works	Continue service of leaf drop-off.	Leaf drop off was made available at Laughton's Nursery, but a fee was	Continue to advertise the leaf drop off service on the Town website and

Revised			Advertise on the Town website and in flyers.		
2J Revised	Brush Drop-off in Westford	Department of Public Works	Hold one collection in April and October.	Four collection events were held during different times in April and October.	Hold at least two collection events.
2K Revised	Multi-Collection Events	Dep't of Public Works/Board of Health	Hold one multi-collection event twice per year.	Two multi-collection events were held to collect small mercury-containing devices.	Hold at least two collection events.
2L Revised	Mercury Drop-off at Board of Health	Board of Health	Collect mercury devices in the Board of Health office daily.	The Board of Health office was open daily to receive mercury-containing devices.	Continue mercury drop-off program.
2M Revised	Mercury Drop-off at Multi-Collection Event	Department of Public Works	Hold one multi-collection event twice per year.	Two multi-collection events were held to collect small mercury-containing devices.	Hold at least two collection events.
2N Revised	Public Meetings	Department of Public Works	Advertise and hold at least one public meeting every year for stormwater.	The progress of the Stormwater Management Program was discussed at a Selectmen's meeting.	Hold a public meeting to inform residents of the stormwater program.
2O Revised	Stormwater Contact Procedure to Address Public Comment	Highway Department	Establish contact and include information in pamphlets and on the Town's website. Record of calls and issues addressed.	The Town Engineer was identified as the stormwater contact regarding pollution and complaints in Year 1. Information was posted on the Town's website.	Update information as needed and continue to include stormwater contact information on the Town's website. Include contact information in educational pamphlets. Track stormwater calls and issues addressed.

2a. No additions at this time.

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4

3A Revised	Storm Sewer Map	Highway Department/ GIS	Expand and field verify all outfalls by year 5.	The storm sewer map was updated to 85% in GIS based on recent aerials and planimetrics. A field mapping program was conducted to identify additional drainage structures and fill in GPS data gaps by Comprehensive Environmental Services, Inc.	The results of the field mapping program will be integrated with existing data in GIS to complete the storm sewer base map by Year 5.
3B Revised	Illicit Discharge Bylaw	Engineering/ Conservation	Present draft bylaw to public in year 4, adopt in year 5.	A kick-off meeting was held on August 9, 2004 to introduce the Phase II requirements for Illicit Discharge Prohibition to Town departments and begin the bylaw development process.	Present draft bylaw to public.
3C Revised	Detection & Elimination Plan Partner with Westford Environmental News and Action Committee (WENAC) and the Organization for the Assabet River (OAR).	Highway Department	Screen 25% of outfalls each year in 4 divided sections of Town. Prioritize areas of known water quality problems for inspections and removal of illicit discharges.	Partner with Westford Environmental News and Action Committee (WENAC) and the Organization for the Assabet River (OAR) to develop priorities for detection using results from Stream Team testing and Water Quality Report.	Complete source investigations and remove known illicit discharges. Develop a protocol and written strategy for Illicit Discharge Detection and Elimination activities. Continue inspecting outfalls for illicit discharges in high priority areas.
3D Revised	Illicit Discharge Education for Public	SuAsCo/Public Works/ Highway/ Water/ Board of Health	Continued public education under Control Measures 1 and 2.	Public education information for illicit discharges was incorporated into BMPs under Control Measures 1 and 2.	Continue existing public education efforts and update illicit discharge information as needed or as new information arises.
3E Revised	Illicit Discharge Education for Municipal Employees	Highway Department	Education for employees under BMP 6H.	Information on illicit discharge detection and elimination was discussed at the DPW training session on December 14, 2004 (see also BMP 6H).	Continue municipal employee training program.

3a. No additions at this time.

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
4A	Wetlands Bylaw	Conservation Commission	Continue to implement existing Wetlands Bylaw.	The Town of Westford Conservation Commission enforced the Westford Wetlands Bylaw and Regulations.	Continue enforcement of Wetlands Bylaw and Regulations.
Revised					
4B	Construction Site Runoff Bylaw	Engineering/ Planning/ Conservation	Present draft bylaw to public in year 4, adopt in year 5.	A kick-off meeting was held on August 9, 2004 to introduce the Phase II requirements for Construction Site Runoff to Town departments and begin the bylaw development process.	Hold progress meetings to develop a draft bylaw by the end of year 4.
Revised					
4C	Erosion, Sediment & Waste Controls	Engineering/ Planning/ Conservation	Copies of meeting minutes and memos. Improved site controls in year 4.	Methods to address erosion, sediment and waste controls at construction sites were discussed at the August 9, 2004 kick-off meeting.	Hold progress meetings, evaluate controls and incorporate into the draft bylaw for Construction Site Runoff.
Revised					
4D	Site Plan Review Procedures	Engineering/ Planning/ Conservation	Improved site plan review procedures in year 4.	Site plans are currently reviewed by the Engineering Department and Conservation Commission for erosion and construction site runoff BMPs. Additional site plan review criteria were discussed at the August 9, 2004 kick-off meeting.	Hold progress meetings, evaluate site plan review criteria and incorporate into the draft bylaw for Construction Site Runoff.
Revised					
4E	Site Inspection & Enforcement	Engineering/ Planning/ Conservation	Records of current enforcement actions, site inspection procedures for all land disturbance >1 acre.	Construction sites subject to the Wetlands Bylaw were inspected on a regular basis by the Conservation Commission. Site inspection and enforcement procedures to comply with the Phase II requirements were discussed at the August 9, 2004 kick-off meeting.	Hold progress meetings, evaluate site inspection and enforcement procedures, options, checklists and incorporate into the draft bylaw for Construction Site Runoff.
Revised					

4F	Construction Site Contact	Highway Department	Establish contact and include information in pamphlets and on the Town's website.	The Town Engineer was identified as the stormwater contact regarding pollution prevention, complaints and construction runoff in Year 1. Information was posted on the Town's website.	Update information as needed and continue to include stormwater contact information on the Town's website. Include contact information in educational pamphlets. Track stormwater calls and issues addressed.
Revised	Procedure to Address Public Comment		Record of calls and issues addressed.		

4a. No additions at this time.

5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
5A	Post-Construction Site Runoff Bylaw	Engineering/ Planning/ Conservation	Present draft bylaw to public in year 4, adopt in year 5.	A kick-off meeting was held on August 9, 2004 to introduce the Phase II requirements for Post-Construction Site Runoff to Town departments and begin the bylaw development process.	Hold progress meetings to develop a draft bylaw by the end of year 4.
Revised					
5B	Structural & Non-Structural BMPs	Engineering/ Planning/ Conservation	BMP design standards specific to the Town of Westford.	BMP design standards were introduced and discussed at the August 9, 2004 kick-off meeting.	Hold progress meetings and evaluate BMPs and design standards desirable by the Town of Westford. Incorporate results into the draft bylaw for Post-Construction Stormwater Management.
Revised	BMP Design Standards				
5C	Long-Term Operation & Maintenance	Engineering/ Planning/ Conservation	O&M Plan/template and procedures required for new and redevelopment	Methods to address BMP operation and maintenance were discussed at the August 9, 2004 kick-off meeting.	Hold progress meetings and evaluate BMP O&M Plans, templates and methods for long-term effectiveness. Incorporate results into the draft bylaw for Post-Construction Stormwater Management.
Revised					

5D	Structural BMP Implementation Procedures	Engineering/ Planning/ Conservation	Inspection and enforcement procedures to ensure BMPs are installed properly.	Methods to address BMP implementation procedures were not specifically discussed at the August 9, 2004 kick-off meeting.	Hold progress meetings and evaluate methods to inspect and enforcement BMP installation. Incorporate results into the draft bylaw for Post-Construction Stormwater Management.
Revised			Copies of meeting minutes and memos.		

5a. No additions at this time.

6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
6A	Catch Basin Schedule	Highway Department	Clean all catch basins and prioritize locations for cleaning.	All catch basins were cleaned in town at least once and twice on hills. Catch basins are visually inspected during cleaning to ensure proper function of the drainage system.	Continue catch basin cleaning and inspection program annually. Begin recording structure conditions and sediment data for future cleaning and maintenance priorities.
Revised					
6B	Regular Street Sweeping	Department of Public Works	Sweep streets a minimum of twice per year.	All streets were swept twice in town.	Continue street sweeping program annually.
Revised					
6C	Sand/Salt Covered	Highway Department	Sand and salt storage is covered.	Sand and salt storage was covered.	Continue to cover sand and salt.
Revised					
6D	Used Oil is Recycled	Highway Department	Waste oil recycling at the Highway Facility is permitted.	The Highway Department maintained permit compliance for the waste oil heater and recycling operation.	Continue existing practices for waste oil recycling to maintain permit compliance.
Revised					

6E Revised	Municipal Hazardous Material Stored Inside	Highway Department	All hazardous materials are stored indoors.	The Highway Department stored all hazardous materials indoors.	Continue to store all hazardous materials indoors.
6F Revised	Implement SWPPP at Garage Implement SWPPP BMPs at Garage	Highway Department	SWPPP implemented and maintained. SWPPP BMPs implemented.	The Highway Department implemented BMPs outlined in the Garage SWPPP.	Continue existing practices for pollution prevention and good housekeeping.
6G Revised	Increase Vehicle Fueling Cover	Highway Department	Increase cover until new facility is constructed.	No progress has been made on this task to date since the new facility will be completed in 2005.	Utilize covered fueling station at the new DPW Facility.
6H Revised	Municipal Employee Training	Highway Department	All Highway Department employees trained annually, record of attendance sheet. Copy of training program	The Highway Department was trained on December 14, 2005 for pollution prevention and good housekeeping. Informal spill prevention, control and countermeasure (SPCC) training was conducted on a monthly basis with Highway Department employees.	Continue existing training programs, incorporate new topics and expand programs as appropriate.
6I Revised	Municipal Operation/ Maintenance Plan	Highway Department	Improved operations at municipal facilities and throughout Town.	Municipal facilities are evaluated on a regular basis for pollution issues. Work began to document protocols for municipal operations. The Town began work to develop a Beneficial Use Determination (BUD) for the reuse of stormwater residuals.	Evaluate and document BMP evaluations and draft BMPs for municipal facilities and operations. Begin compiling a draft Municipal Operation and Maintenance Plan and continue to develop a BUD for stormwater residuals.

6a. Addition

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
6J	Mosquito Control Project & Drainage System Maintenance	Engineering/ Conservation	Record of improved drainage system inspection and maintenance.	Through the efforts of the Central Massachusetts Mosquito Control Project, brush and other accumulated debris was removed from culverts and	Continue mosquito control program.

Revised					

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) *<<if applicable>>*

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4

7a. No additions at this time.

7b. WLA Assessment

Stony Brook in Westford is a 303d listed water that is classified as Category 5 "Waters Requiring a TMDL". Water quality concerns associated with Stony Brook will be addressed through the implementation of BMPs under the six minimum measures for Phase II, as outlined in the Westford Stormwater Management Plan (SWMP). Stony Brook is highlighted in the Westford SWMP as a priority for implementation activities throughout the permit term. The WLA Assessment will be addressed as part of the Town's SWMP, as the TMDL study is completed for Stony Brook or those water bodies with watersheds in Westford.

Part IV. Summary of Information Collected and Analyzed

Ten outfalls were identified as a high priority due to known water quality problems at receiving waters. These outfalls were screened for illicit discharges and dry weather flow sampling at 6 outfalls indicated 3 illicit discharges were present, as indicated in the summary table below. Illegal dumping was observed at another outfall. The Town conducted source investigations at some locations, which required additional work to remove non-stormwater flows.

Water Quality Parameters	Outfall ID No.					
	1	4	7	8	9	10
Fecal Coliform (#/100ml)	**200**	**130,000**	**21,000**	<100	**20,000**	20
E. coli (#/100ml)	<10	**>20,000**	10	20	<10	10
Ammonia (mg/L)	ND	**41.1**	0.714	ND	**20.9**	0.382
Surfactants ((MBAS) mg/L)	0.095	**1.00**	0.05	< 0.05	0.2	ND

Fluoride (mg/L)	< 0.05	0.34	< 0.05	< 0.05	1.29	< 0.010
Chlorine (mg/L)	ND	ND	ND	ND	ND	ND

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	No
Annual program budget/expenditures	($)	$69,000

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	Households*
Stormwater management committee established	(y/n)	No
Stream teams established or supported	(# or y/n)	Yes**
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	N/A
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	Year 4
▪ community participation	(%)	Year 4
▪ material collected	(tons or gal)	See Below
School curricula implemented	(y/n)	Yes: 5th Grade

* Water Department mailing sent to every Westford Household.
** Westford News and Action Committee (WENAC) & Organization for the Assabet River (OAR).

Legal/Regulatory

	In Place Prior to Phase II	Under Review	Drafted	Adopted
Regulatory Mechanism Status (indicate with "**X**")				
▪ Illicit Discharge Detection & Elimination		X		
▪ Erosion & Sediment Control		X		
▪ Post-Development Stormwater Management		X		
Accompanying Regulation Status (indicate with "**X**")				
▪ Illicit Discharge Detection & Elimination		X		
▪ Erosion & Sediment Control		X		
▪ Post-Development Stormwater Management		X		

Mapping and Illicit Discharges

Outfall mapping complete	(%)	85%
Estimated or actual number of outfalls	(#)	
System-Wide mapping complete	(%)	85%
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	85%
Outfalls inspected/screened	(# or %)	10*
Illicit discharges identified	(#)	4*
Illicit connections removed	(#) (est. gpd)	0

% of population on sewer	(%)	
% of population on septic systems	(%)	100%
*The Westford DPW inspects stormwater outfalls on an annual basis for drainage and erosion problems. Future inspections will target water quality issues for stormwater management and illicit discharge detection.		

Construction

Number of construction starts (>1-acre)	(#)	
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	
Site inspections completed	(# or %)	
Tickets/Stop work orders issued	(# or %)	
Fines collected	(# and $)	
Complaints/concerns received from public	(#)	

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	
Site inspections completed	(# or %)	
Estimated volume of stormwater recharged	(gpy)	Not Assessed

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	1
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	1-2/yr[1]
Total number of structures cleaned	(#)	2,700 approx.
Storm drain cleaned	(LF or mi.)	200 LF
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	283 tons

Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Disposal
Cost of screenings disposal	($)	
1. Drainage structures in hilly areas are cleaned more frequently based on the rate of sediment accumulation.		

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	2
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	2
Qty. of sand/debris collected by sweeping	(lbs. or tons)	800 CY
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Disposal
Cost of sweepings disposal	($)	
Vacuum street sweepers purchased/leased	(#)	1 owned*
Vacuum street sweepers specified in contracts	(y/n)	Y
*The Town owns 1 vacuum/mechanical sweeper and contracted another sweeper to complete all roads in Town.		

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	0%
▪ Herbicides	(lbs. or %)	80%
▪ Pesticides	(lbs. or %)	80%

Anti-/De-Icing products and ratios *Ice-Ban ($MgCl_2$) is applied to a 90:10 sand/salt mixture with a sprayer as the materials are dispensed from trucks during de-icing activities. On some occasions, straight salt applications are used in town.*	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	
Pre-wetting techniques utilized	(y/n)	No
Manual control spreaders used	(y/n)	Yes
Automatic or Zero-velocity spreaders used	(y/n)	Zero Velocity

Estimated net reduction in typical year salt application	(lbs. or %)	Not Assessed
Salt pile(s) covered in storage shed(s)	(y/n)	Yes
Storage shed(s) in design or under construction	(y/n)	Yes