

5/17/11

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Municipality/Organization: Town of Auburn

EPA NPDES Permit Number: MAR041088

MaDEP Transmittal Number:

Annual Report Number

& Reporting Period: No. 8: May 1, 2010-April 30, 2011

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: William A. Coyle, P.E.

Title: Town Engineer

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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: William A. Coyle, P.E.

Printed Name: William A. Coyle, P.E.

Title: Town Engineer

Date: 5/12/2011

Part II. Self-Assessment

The Town of Auburn has completed the required assessment and determined that our municipality is in compliance with all permit conditions.

Auburn's status with respect to historic properties was assessed during year 2. Auburn has verified that the MS4 outfalls are not having any impact on the three historic properties list on the National Registry of Historic Places. This was done through visual inspections at each historic property.

In 2008, the position of Town Engineer, who also serves as the head of the Stormwater Committee, was filled by William Coyle, PE. Additionally, a newly created position of Assistant Town Engineer was filled by Joanna Paquin, PE in Permit Year 8.

Effective May 19, 2011 the Town will reorganize with various divisions (highway, sewer, engineering, and parks/recreation/cemetery) consolidated under a newly established Department of Public Works. This reorganization will facilitate stormwater management activities that historically were performed amongst the various divisions. Town is in the process of hiring a dedicated full-time stormwater employee under the newly established Department of Public Works.

The Town has considered stormwater funding alternatives over the past several years, including development/consideration of a stormwater fee as an alternative to funding through taxation. The Board of Selectmen has chosen to fund the current stormwater management compliance costs through the general fund, which was successfully approved at the Town Meeting in May 2010.

The FY 2011 Town budget provided a funding mechanism for current stormwater management activities including ongoing Phase II compliance. The Town's proposed budget for FY 2012 maintains the current funding levels for stormwater management activities.

Extensive public education and outreach was conducted over the past couple years as part of the funding alternatives project including numerous public presentations, publishing of informational sheets in the local newspaper, and direct outreach to residents and businesses. These focused education/outreach activities culminated in the approval of supplemental stormwater management funding at the Town Meeting in May 2010.

The "Stormwater Management, Erosion Control and Illicit Discharge Bylaw" was passed at a Special Town Meeting held on November 12, 2009.

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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Cycle
1A Revised	Mail Educational Information to Businesses and Residents	Planning Dept., Town Engineer, and Auburn Water District	Number of articles and copies of materials.	Education material was previously included with water bills, through an ongoing cooperative effort with the Auburn Water District.	Auburn Water District continues to have the capability to include stormwater educational materials as water bill inserts, to supplement information posted on the Town's updated website.
1B Revised	Develop Stormwater Section of Town Website	Planning Dept., Town Engineer, and MIS Dept.	Measure number of hits per quarter.	Town Staff has developed the stormwater section of the Town's website, under the Town Engineer's section, as part of an overall upgrade of the website. Educational pamphlets have been adapted for and posted on the website.	Update the stormwater section of the Town's website.
1C Revised	Develop and broadcast a stormwater presentation on local cable network	Stormwater Committee and Town Engineer	Cable TV tapes of shows.	Presentation on stormwater issues was made at the Town Meeting in May 2010, which was broadcast on local cable. EPA's "After the Storm" has been added to the local access cable lineup as of March 2009.	Provide updated information on status of stormwater issues and progress of Stormwater Master Plan implementation progress at periodic selectmen meetings, to be broadcast on local cable. Continue to make accessible EPA's "After the Storm" on local cable.
1D Revised	Publish Quarterly Article in Local Newspaper	Planning Dept., Health Dept., Town Engineer and Auburn Water District	Copies of Articles.	"Highway Happenings" continued to be published weekly in the local newspaper, with stormwater issues noted as appropriate.	Develop format for quarterly news article. Submit a quarterly article to the local newspaper regarding upcoming stormwater events and progress on the implementation of the Stormwater Master Plan.

1a. No additions at this time.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Cycle
2A	Conduct River, Stream, and Pond Cleanups	Planning Dept., Town Engineer and Conservation Commission	Cleaner streams as documented by before and after photographs	Continued Leesville Pond cleanup in cooperation with the Leesville Pond Watershed and Neighborhood Assoc., including winter “drawdown” for weed control (and assoc TMDL reduction). Continued cooperative efforts with Auburn Water District, who performed winter “drawdown” of Dark Brook Reservoir and Lower Stoneville Pond. Conducted a Town-wide cleanup on April 30, 2011 in conjunction with the Auburn Chamber of Commerce. Coordinated work effort and permitting with MassDOT to remove approximately 95 cubic yards of sediment from Eddy Pond (Route 20).	Conduct stream and pond cleanups, including the four Town-owned ponds. Foster cooperation with Auburn Water District for cleanup of the non-Town-owned ponds. Pursue implementation of winter “drawdown” for Town ponds, including Eddy Pond which had its dam reconstructed with aluminum flashboard and low level outlet control to facilitate future winter drawdown operations.
2B	Establish a Classroom Education Program	Planning Dept., Town Engineer, Sewer Dept. and Conservation Commission	The classroom education program will be implemented in the next permit cycle.	Town Staff has had initial discussions regarding stormwater curriculum for classroom education with a high school biology/ environmental science teacher.	Work with schools to establish implementation plan/schedule. Train volunteers to present the stormwater information.
2C	Help Establish Volunteer Stormwater Organization	Phase II Stormwater Committee	Document quarterly meetings.	Initial cooperative efforts ongoing with Town pond advocacy groups, such as the Leesville Pond Watershed and Neighborhood Association.	Pursue continued cooperative efforts with Town pond advocacy groups and plan projects/activities that can be completed by groups. Continue Town participation in the Upper Blackstone Coalition, as regional advocacy group.

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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Cycle
3A	Develop Town Storm Drain Outfall Map	Highway Department and Town Engineer	All outfalls mapped by year 5.	A GIS base map and database for the Auburn storm drain system was created in previous permit years. Existing GIS base map includes outfall information and receiving water information. Storm drain outfalls were located and field verified in previous permit years. Existing GIS base map includes the majority of structures (GPS located) and piping/connectivity.	Continue to work with MassDOT and the Turnpike Authority to obtain complete drainage information for highways owned/maintained by others (ie. I-90, I-290, I-395). Further enhance “connectivity” between storm drain structures, based upon field observations during routine maintenance.
Revised					
3B	Develop Illicit Discharge Prohibition Ordinance	Planning Dept., Town Engineer, and Health Dept	Obtain authorization to control inputs to the municipal drainage system. Bylaw at Town meeting in next permit cycle.	Bylaw passed in Nov 2009 entitled “Stormwater Management, Erosion Control and Illicit Discharge Bylaw” which prohibits illicit discharges. Draft regulations were developed for implementation of bylaw.	Finalize specific regulations for implementation of bylaw.
Revised					
3C	Develop Illicit Discharge Detection and Elimination Plan and Implement Activities	Planning Dept., Town Engineer, and Highway Dept	All outfalls examined by year 4. Sources traced and conclusion documented within one year of discovery.	Illicit discharge detection plan completed. Outfalls identified have been screened for illicit discharges.	No further activity planned, beyond ongoing inspections and response to new illicit discharges identified.
Revised					
3D	Incorporate Information on Illicit Discharges into Public Education and Outreach Topics	Planning Dept., Town Engineer, and Highway Dept	Copies of materials.	Illicit discharge education material included on updated Town website.	Continue public education on hazards associated with illegal discharges and improper disposal of waste.
Revised					

3E	Hold Annual Household Hazardous Waste Collections	Board of Health	Document quantity of wastes collected annually.	Most recently, a Household Hazardous Waste Collection Day was held on May 22, 2010 (Permit Year 8). The Auburn Board of Health holds these events biannually. Information on disposal of special wastes is continuously posted on the Town's updated website.	The Auburn Board of Health will sponsor/hold a Household Hazardous Waste Collection Day in May 2012.
Revised					
3F	Identify Department to Take Stormwater Calls	Highway Dept, Planning Dept., and Engineering	Log of complaints and actions taken.	Stormwater related calls are tracked by the Town Engineer, with open communication established throughout departments (i.e. Police, Highway) to ensure stormwater complaints properly identified and resolved.	Protocol for addressing and reporting dumping or other inappropriate inputs into the MS4 will be available online, as part of the development of a stormwater section of the website. Protocol for response to stormwater calls will be evaluated as part of the ongoing reorganization (DPW).
Revised					

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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Cycle
4A Revised	Develop Erosion Control Regulation	Town Engineer and Selectmen	Bylaw at Town meeting in next permit cycle.	Bylaw passed in Nov 2009 entitled “Stormwater Management, Erosion Control and Illicit Discharge Bylaw” which prohibits illicit discharges. Draft regulations were developed for implementation of bylaw.	Finalize specific regulations for implementation of bylaw.
4B Revised	Develop Guidance for Erosion Controls	Planning Dept, Highway Dept, Town Engineer and Consultant	Inspection checklist and documented inspections.	Town Engineer’s Office has coordinated stormwater management, enforcement and construction site/erosion control inspection. Town Engineer’s Office conducted inspections of erosion controls and construction sites.	Finalize guidance outlining specific erosion control requirements desired by Auburn. Finalize inspection checklist and set up a tracking program. Continue ongoing inspections of erosion controls.
4C Revised	Identify Department to Take Stormwater Calls	Highway Dept, Planning Dept., and Engineering	Log of complaints and actions taken	Stormwater related calls are tracked by Town Engineer, with open communication established throughout departments (i.e. Police, Highway) to ensure stormwater complaints properly identified and resolved. Public education has been successful, with public reporting of inappropriate discharges. Town Engineer and Conservation Commission recently responded to runoff issues from two residential construction sites. Work was stopped and these projects are temporarily on hold.	Protocol for addressing and reporting dumping or other inappropriate discharges into the MS4 will be available online, pending development of a stormwater section of the website

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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Cycle
5A Revised	Develop BMP Regulation	Town Engineer and Selectmen	Bylaw at Town meeting in next permit cycle.	Bylaw passed in Nov 2009 entitled “Stormwater Management, Erosion Control and Illicit Discharge Bylaw” which prohibits illicit discharges. Draft regulations were developed.	Finalize specific regulations for implementation of bylaw.
5B Revised	Develop BMP Design Standards	Planning Dept, Town Engineer, and Consultant	Copy of design standards.	Specific BMP requirements desired by Auburn are included in the Stormwater Bylaw and draft regulations.	Finalize design standards for developers to follow including design performance criteria, BMP examples, and maintenance requirements.
5C Revised	Develop and Implement Inspection Program	Planning Dept, Town Engineer, and Consultant	Retain copies of maintenance reports received annually, plus records of inspections completed and results.	Town Engineer’s Office performed inspections.	Setup a maintenance tracking program that requires annual maintenance reports by owner. Conduct post-construction stormwater control inspections for sites without an annual report. Require operation and maintenance plan of developers.
5D Revised	Amend Zoning Bylaws to Regulate Impervious Areas	Planning Dept., Town Engineer, and Zoning Board of Appeals	The new zoning bylaw will be implemented in the next permit cycle.	The Aquifer and Watershed Protection Overlay District boundaries were updated in 2008 (Permit Year 6). Current bylaw requires recharging via underground chambers with pretreatment to meet EPA and MassDEP stormwater quality standards.	Consider potential enhancements to the Aquifer and Watershed Protection Overlay district section of the Zoning Bylaw with focus on reducing impervious area.
5E Revised	Adopt a Tree Preservation Bylaw	Tree Warden	Adopt a Tree Preservation Bylaw in next permit cycle.	Significant new plantings conducted as part of the Route 12 Beautification Project, which included the planting of hundreds of new trees and shrubs.	Consider development of a tree preservation bylaw.

5a. No additional Post Construction Runoff Control BMPs.

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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Cycle
6A Revised	Sweep Streets in Town	Highway Department	Priority plan of sweeping. Volume of sweepings collected.	Streets and sidewalks were swept as required this year. Current priority plan based on five “precincts” and annual rotation. Additionally, provided sweeping of parking lots at Town facilities (i.e. Town Hall).	Consider implementation of new street sweeping plan that has been developed based on water quality and sediment priorities, as a supplement to the “precinct” plan. Sweep all streets based on the new prioritized street sweeping plan.
6B Revised	Clean Catch Basins	Highway Department	Records of catch basins cleaned.	Approximately 560 catch basins were cleaned this year, as facilitated by the increased stormwater funding approved at the May 2010 Town Meeting. Ongoing efforts to accelerate catch basin cleaning using extended work days and weekends. Special cleaning of catch basins and drainage pipes on Rockland Rd and Prospect St in August 2010 to restore capacity.	Continue aggressive catch basin cleaning activities. Hire full-time stormwater employee under the new DPW to focus on maintenance of stormwater system. Record sediment collected per catch basin or drainage network each cleaning.
6C Revised	Calibrate Salt Spreading Equipment	Highway Department	Prevent over-application of salt as shown with calibration records.	The Highway Department uses a 3 to 1 sand/ salt ratio on the Town’s roads. The amount of mixture applied is controlled inside the cab of the truck. The employee uses experience and best judgment to determine how much of the mixture to apply.	Continue implementation of current low salt sanding practices.
6D Revised	Continue Practice of Low Salt Ratio Application	Highway Department	Use low salt ratio throughout town.	Continued the existing practice of low salt ratio application throughout town to protect groundwater and surface water resources.	Continue implementation of current low salt sanding practices.

6E	Develop an Inspection and Maintenance Plan	Highway Department and Engineering	Records of inspections and maintenance.	O&M plan developed for stormwater system, including street sweeping, catch basin maintenance/inspection and outfall maintenance/inspection. Detention ponds were inspected and inventoried, with development of BMP maintenance plan.	Perform inspection and maintenance, modifying frequency as necessary. Implement a written yearly BMP maintenance schedule.
6F	Ensure Water Quality Improvements are Considered for Flood Projects	Highway Department and Engineering	Document flood control projects	Work was completed at Eddy Pond dam, including reconstruction to facilitate drawdown. Drainage system replacement completed for Mount View Avenue area (300 ft), to address deteriorated stormwater infrastructure, including installation of Eliminator on existing catch basin. Drainage system replacement completed for Prospect Street (250 ft), to address historical flooding associated with deteriorated stormwater infrastructure (clogged). Both stormwater improvement projects used deep sump catch basins and specialized hoods to improve performance. Design work completed for culvert replacements at three locations, using current Massachusetts Stream Crossing Standards to the maximum extent possible. Proposed improvements will minimize potential overtopping of road with associated erosion into stream.	Continue to identify opportunities for implementation of Water Quality Improvements, as part of scheduled infrastructure replacement and/or rehabilitation projects.
Revised					

6G Revised	Discontinue Outdoor Vehicle Washing	All Town Departments	Written policy.	Discontinued outdoor vehicle washing at the highway garage. Verified that all garage drains attached to a gas trap which discharges to the sanitary sewer system were cleaned once per year.	Ongoing inspection/cleaning of gas trap and adherence to policy banning outdoor vehicle washing.
6H Revised	Implement BMPs at the Highway Garage to Prevent Sedimentation to the Adjacent Waterway from Site Runoff and Road Material Storage	Highway Department	Before and after photographs. Records of sweeping and catch basin cleaning.	The sand pile and raw material piles remain contained to prevent release to the adjacent stream. The yard and catch basins were cleaned as required.	Sweep the yard and clean catch basins frequently. Document sweeping and catch basin cleaning.
6I	Cover Junk Equipment and Vehicles	All Town Departments	Cover all junk equipment and vehicles.	Additional scrap metal and junked vehicles were being removed from the Highway Garage yard (ongoing).	Vehicles to be provided with covers and drip pans, on an ongoing basis. Eliminate prolonged storage of scrap metal and junked vehicles.
6J Revised	Dispose of Hazardous Waste Drums	All Town Departments	Keep a record of drum disposal.	All drums are stored indoors until they can be disposed.	Continue practice of storing drums indoors for prompt disposal.
6K Revised	Inspect and Cover Dumpsters	Highway Department	Record inspections.	Dumpsters have been inspected. Temporary covers were provided for the dumpsters.	Develop a written inspection checklist for dumpsters. Inspect dumpsters yearly to ensure there are no leaks.
6L Revised	Document Protocols for Municipal Operations	Highway Department	Copies of policies.	Policies are available for review by Town employees, such as the new vehicle washing policy banning outdoor washing of vehicles.	Develop written policies for all municipal operations. Review policies with DPW employees.
6M Revised	Conduct Town Employee Stormwater Training	Highway Department and Engineering	Attendance sheet and copy of program.	Fire Department was previously trained for spill containment. Highway Department was previously trained on stormwater.	Conduct training for DPW personnel, on stormwater management and wetlands protection issues.

6a. No additional Good Housekeeping BMPs.

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA)

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Cycle
7A	Develop a Water Quality Strategy for 303d Waters	Town Engineer & Consultant	Summary of existing pollution prevention efforts, future needs, and responsible parties. Copy of Surface Water Quality Strategic Plan.	Completed Leesville Pond cleanup in cooperation with the Leesville Pond Watershed and Neighborhood Assoc., including winter “drawdown” for weed control (and assoc TMDL reduction). Stormwater Master Plan identifies conceptual BMPs that may be implemented to address water quality issues. Application for 604b Grant submitted in December 2010 to obtain additional water quality information and assist with prioritization of BMPs.	Foster cooperation with established and newly formed advocacy groups, such as the Leesville Pond Watershed and Neighborhood Assoc. and the Eddy Pond Watershed Assoc.
Revised					
7B	Implement BMPs from Water Quality Strategy	Town Engineer, Consultant, & Town Departments (to be determined)	Photographs, logs, and BMP descriptions for completed efforts and water quality improvements.	Photographs and logs kept for activities related to Leesville Pond cleanup and winter “drawdown” for weed control (and assoc TMDL reduction). Expanded aquatic weed control to include Leesville Pond.	Pursue implementation of winter “drawdown” for all Town ponds.
Revised					

7a. No additional BMPs at this time for compliance with TMDLs.

7b. WLA Assessment

TMDL studies have been completed for Auburn Pond, Eddy Pond, Leesville Pond, Pondville Pond, and Stoneville Pond. The BMPs in Minimum Measures 1 through 6 are being applied first. These include measures recommended by the TMDLs such as public education, fostering volunteer watershed groups, street sweeping, catch basin cleaning and mapping outfalls. The Town has developed a Stormwater Management Master Plan for its stormwater system. This plan includes recommended BMPs (conceptual locations and designs) to address the identified TMDL issues.

Part IV. Summary of Information Collected and Analyzed
Information prepared for Town Meeting (May 6, 2010)
Stormwater Management Master Plan (updated March 2010)

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	Yes (see below)
Land Use Enforcement Officer	Staffed in 2009, stormwater responsibilities presently handled by Town Engineer.	
Assistant Town Engineer	Staffed in 2010	
DPW Employee (full-time stormwater focus)	To be hired in 2011	
Annual program budget/expenditures	(\$)	\$300,000 (supplement)
	Approved for FY 2011	

Education, Involvement, and Training

Estimated number of residents reached by education program(s) (as determined by Town website) (as determined by distribution area of local newspaper, Auburn News)	(# or %)	Approx 80%
Stormwater management committee established	(y/n)	Yes
Stream teams established or supported (cooperative efforts initiated with pond/watershed advocacy groups) (watershed groups supported stormwater program/funding at May 2010 Town Meeting)	(# or y/n)	Yes
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	
Household Hazardous Waste Collection Days		
days sponsored	(#)	1 May 22, 2010
community participation	(%)	
material collected	(tons or gal)	
School curricula implemented	(y/n)	Initiated

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		(%)		100%
Estimated or actual number of outfalls		(#)		329
System-Wide mapping complete		(%)		95%
Mapping method(s)				
▪ Paper/Mylar		(%)		
▪ CADD		(%)		
▪ GIS		(%)		100%
Outfalls inspected/screened		(# or %)		100%
Illicit discharges identified		(#)		0
Illicit connections removed		(#)		0
		(est. gpd)		
% of population on sewer		(%)		85%
% of population on septic systems		(%)		15%

Construction

Number of construction starts (>1-acre)	(#)	2
- Briarcliff Estates (approx 20 acres) - Dr. Arthur and Dr. Martha Pappas Recreational Complex		
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100%
Site inspections completed	(# or %)	
Tickets/Stop work orders issued	(# or %)	None
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)	

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	
Total number of structures cleaned	(#)	560
Storm drain cleaned	(LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	See note
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		
Cost of screenings disposal	(\$)	
Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	1

Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	1
Qty. of sand/debris collected by sweeping	(lbs. or tons)	See note
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	
Cost of sweepings disposal	(\$)	
Vacuum street sweepers purchased/leased	(#)	
Vacuum street sweepers specified in contracts	(y/n)	

NOTE: Quantity of sediment collected via street sweeping and catchbasin cleaning was approximately 840 cubic yards.

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

Anti-/De-Icing products and ratios	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	3:1 Sand to Salt ratio
Pre-wetting techniques utilized	(y/n)	
Manual control spreaders used	(y/n)	Yes
Automatic or Zero-velocity spreaders used	(y/n)	
Estimated net reduction in typical year salt application	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	(y/n)	Yes
Storage shed(s) in design or under construction	(y/n)	