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Municipality/Organization: Town of Auburn

EPA NPDES Permit Number: MAR041088

MaDEP Transmittal Number: W041071

Annual Report Number
& Reporting Period: No. 6: May 1, 2008-April 30, 2009

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: William Coyle

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: 

Printed Name: Robert Grossman

Title: Chairman, Board of Selectmen

Date: 4/27/09

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.

A Stormwater Utility Feasibility Study was completed in 2006 resulting in the finding that a stormwater utility was a feasible funding mechanism for stormwater management related activities. The Town successfully applied for SRF financing for a Stormwater Utility implementation project, covered under the SRF CY2007 funding program. Subsequently, the Stormwater Utility implementation project was approved at a Special Town Meeting held on November 1, 2007. The Loan Commitment through the SRF program, as issued by the Massachusetts Water Pollution Abatement Trust, was issued in January 2008. The Board of Selectmen voted to award the project to Comprehensive Environmental Inc at their meeting on April 14, 2008. The scope of work is scheduled to be completed by the end of 2009, including final recommendations for the implementation of a stormwater utility.

Implementation of the Stormwater Utility will provide a funding mechanism for current and future stormwater management activities including ongoing Phase II compliance.

The Stormwater Committee has taken a large step in the past reporting period to finalize all bylaws and regulations. Additionally, much progress has been made on the system wide mapping of the Town's stormwater system. In this process, new structures and outfalls were located and inspected. Initial steps towards a stormwater curriculum and student involvement have been completed with the focus on an environmental student group at the high school which will undertake stormwater related projects.

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 6 (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 included with water bills, through an ongoing cooperative effort with the Auburn Water District. Financial contribution (\$5K) by Sewer Dept to the Blackstone River Coalition for educational materials. Educational pamphlets have been developed for ongoing mailings.	<ul style="list-style-type: none"> Water District continues to have the capability to include educational materials as water bill inserts. Mail previously developed stormwater pamphlets on routine basis (i.e. semi-annually), dependent upon establishment of stormwater utility as funding mechanism..
1B Revised	Develop Stormwater Section of Town Website	Planning Dept., Town Engineer, and MIS Dept.	Measure number of hits per quarter.	Town Staff is in the process of developing the stormwater section of the Town’s website. Educational pamphlets have been adapted for and posted on the website.	<ul style="list-style-type: none"> Complete and update the stormwater section of the Town’s website.
1C Revised	Develop and broadcast a stormwater presentation on local cable network	Phase II Stormwater Committee and Town Engineer	Cable TV tapes of shows.	Presentations and discussions related to stormwater and the establishment of a stormwater utility were made at Selectmen’s Meetings, which were broadcast on local cable. EPA’s “After the Storm” has been added to the local access cable lineup as of March 2009.	<ul style="list-style-type: none"> Inform residents of stormwater broadcast during future selectmen meetings. Provide updated information on stormwater issues and establishment of stormwater utility at selectmen meetings, to be broadcast on local cable.
1D Revised	Publish Quarterly Article in Local Newspaper	Planning Dept., Health Dept., Town Engineer and Auburn Water District	Copies of Articles.	Periodic newspaper inserts regarding Leesville Pond Cleanup. “Highway Happenings” continued to be published weekly in the local newspaper, with stormwater issues noted as appropriate.	<ul style="list-style-type: none"> Develop format for quarterly news article. Submit a quarterly article to the local newspaper regarding upcoming stormwater events.

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 6 (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	Completed Leesville Pond cleanup in cooperation with the Leesville Pond Watershed and Neighborhood Assoc., including winter “drawdown” for weed control (and assoc TMDL reduction). A focused stream cleanup is planned for May 2, 2009 for Dunn’s Brook. The Town Engineer is in close contact with the Leesville Pond Watershed and Neighborhood Association.	<ul style="list-style-type: none"> • Conduct stream and pond cleanups, including the four Town-owned ponds. • Foster cooperation with established and newly formed advocacy groups, such as the Leesville Pond Watershed and Neighborhood Assoc. and the Eddy Pond Watershed Assoc. • Document cleanup activities • Pursue implementation of winter “drawdown” for Town ponds.
Revised					
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. Development of potential stormwater related activities that could be completed by high school students is underway.	<ul style="list-style-type: none"> • Stormwater related curriculum will be developed for the classroom, including review of EPA educational materials. • Work with schools to establish implementation plan/schedule. • Train volunteers to present the stormwater information.
Revised					
2C	Help Establish Volunteer Stormwater Organization	Phase II Stormwater Committee	Document quarterly meetings.	Initial cooperative efforts achieved with Town pond advocacy groups, such as the Leesville Pond Watershed and Neighborhood Association. Initial discussion were held with faculty advisor for volunteer student group at the high school “Students for the Environment” that plans to help with water quality monitoring and public outreach regarding stormwater.	<ul style="list-style-type: none"> • Pursue continued cooperative efforts with Town pond advocacy groups and plan regular projects and activities that can be completed by such groups. • Identify stakeholders and coordinators as part of the Stormwater Utility project. • Continue Town participation in the Upper Blackstone Coalition, as regional advocacy group.
Revised					

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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Cycle
3A Revised	Develop Town Storm Drain Outfall Map	Highway Department and Town Engineer	All outfalls mapped by year 5.	<ul style="list-style-type: none"> • A GIS base map and database for the Auburn storm drain system was created in previous permit years, with assessor’s information added in permit year 5. • Existing GIS base map includes outfall information and receiving water information. Storm drain outfalls were located and field verified in previous permit years. • Limited drainage information has been obtained for portions of State highways/ turnpike. • GIS base map was updated to reflect the majority of structures (field located via GPS) and piping/connectivity. 	<ul style="list-style-type: none"> • Work with MassHighway 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.
3B Revised	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.	<ul style="list-style-type: none"> • The Illicit Discharge Prohibition Bylaw has been finalized. • The Board of Health previously adopted Illicit Discharge Prohibitions in the Title V regs. 	<ul style="list-style-type: none"> • Submit bylaw for the 2009 Fall Town Meeting, in conjunction with implementation of the Stormwater Utility.
3C Revised	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.	Additional outfalls identified in Year 6 have been screened for illicit discharges.	<ul style="list-style-type: none"> • Illicit discharge detection plan completed. No further activity planned, beyond ongoing inspections and response to any new illicit discharges identified.

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 with water bills .	Incorporate public education materials on hazards associated with illegal discharges and improper disposal of waste with public education program.
Revised					
3E	Hold Annual Household Hazardous Waste Collections	Board of Health	Document quantity of wastes collected annually.	A Hazardous Waste Collection Day was held on May 3, 2008. Recently the town of Auburn Board of Health has held these events biannually.	<ul style="list-style-type: none"> • Organize collection events and advertise with public education materials, emphasizing the need to collect wastes to avoid improper disposal and the resulting pollution. • Conduct a Hazardous Waste Collection Day in 2009 and annually.
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 Land Use Enforcement Officer, with open communication established throughout departments (i.e. Police, Highway) to ensure stormwater complaints properly identified and resolved.	<ul style="list-style-type: none"> • Protocol for addressing and reporting dumping or other inappropriate inputs into the MS4 will be available online, pending development of a stormwater section of the website
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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Cycle
4A	Develop Erosion Control Regulation	Town Engineer and Selectmen	Bylaw at Town meeting in next permit cycle.	The Erosion Control Bylaw has been finalized. This bylaw combines erosion and sedimentation controls and post-construction stormwater controls.	<ul style="list-style-type: none"> • Submit the bylaw for the 2009 Fall Town Meeting, in conjunction with implementation of the Stormwater Utility. • Implement DEP regulations as recently established (310 CMR and 314 CMR).
Revised					
4B	Develop Guidance for Erosion Controls	Planning Dept, Highway Dept, Town Engineer and Consultant	Inspection checklist and documented inspections.	Town's Land Use Enforcement Officer has coordinated stormwater management, enforcement and construction site/erosion control inspection. Land Use Enforcement Officer conducted inspections of erosion controls and construction sites.	<ul style="list-style-type: none"> • Finalize guidance outlining specific erosion control requirements desired by Auburn. • Finalize inspection checklist. • Set up a tracking program. • Ongoing inspections of erosion controls.
Revised					
4C	Identify Department to Take Stormwater Calls	Highway Dept, Planning Dept., and Engineering	Log of complaints and actions taken	Stormwater related calls are tracked by Land Use Enforcement Officer, 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.	<ul style="list-style-type: none"> • 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
Revised					

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 6 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Cycle
5A	Develop BMP Regulation	Town Engineer and Selectmen	Bylaw at Town meeting in next permit cycle.	A Post-Construction Stormwater Control Bylaw has been finalized. This bylaw combines erosion and sedimentation controls and post-construction stormwater controls.	<ul style="list-style-type: none"> • Submit the bylaw for the 2009 Fall Town Meeting, in conjunction with implementation of the Stormwater Utility.
Revised					
5B	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 regulations. Developed draft design standards for developers to follow including design performance criteria, BMP examples, and maintenance requirements, which are incorporated by reference in bylaws.	Finalize design standards for developers to follow including design performance criteria, BMP examples, and maintenance requirements.
Revised					
5C	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.	The Land Use Enforcement Officer performed inspections. O&M requirements are included in the finalized Stormwater Regulations	<ul style="list-style-type: none"> • Setup a permit program and maintenance tracking program that requires annual submittal of maintenance reports by owner, in conjunction with Town’s MUNIS software package. • Conduct post-construction stormwater control inspections for sites where no annual report is submitted. • Require operation and maintenance plan of developers.
Revised					

5D	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 to reflect recent wells installed by the Auburn Water District. Map changes were accepted at Annual Town Meeting in 2008.	<ul style="list-style-type: none"> • Complete the rewrite of the Aquifer and Watershed Protection Overlay district section of the Zoning Bylaw with improvements in reducing impervious area. • Enact the modifications to the Aquifer and Watershed Overlay District boundaries at the Annual Town Meeting in 2008.
Revised					
5E	Adopt a Tree Preservation Bylaw	Tree Warden	Adopt a Tree Preservation Bylaw in next permit cycle.	Scheduled for next permit cycle.	<ul style="list-style-type: none"> • Develop a tree preservation bylaw. • Submit bylaw for Town Meeting.
Revised					

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 6 (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. A new street sweeping plan has been developed based on water quality and sediment priorities, as a supplement to the “precinct” plan.	<ul style="list-style-type: none"> • Sweep all streets based on the new prioritized street sweeping plan. • Record sediment collected.
6B Revised	Clean Catch Basins	Highway Department	Records of catch basins cleaned.	Catch basins were cleaned this year on need-based prioritization determined by the Town’s Highway Dept. Future cleaning will be prioritized towards basins with known water quality and sediment issues, as identified through the past year’s location/inspection of most structures.	<ul style="list-style-type: none"> • With the implementation of a Stormwater Utility, clean all catch basins in Town within first year or two, followed by prioritized cleaning each following year. • 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.	Same as Year 5.
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.	Same as Year 5.

6E	Develop an Inspection and Maintenance Plan	Highway Department and Engineering	Records of inspections and maintenance.	An in-house policy for disposing of maintenance generated wastes (i.e. catch basin cleanings, street sweepings, and sediment from detention ponds) was previously implemented. Detention ponds were inspected/inventoried, as first step towards development of BMP maintenance plan.	<ul style="list-style-type: none"> • 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 initiated at several Town-owned dams (Auburn Pond and Leesville Pond). Drainage system replacement designed for Barbara Avenue area, to address historical localized flooding associated with deteriorated stormwater infrastructure.	Barbara Avenue stormwater system replacement project to be completed by Town personnel.
Revised					
6G	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. The Town has complied with federal and state regulations pertaining to vehicle washing and rinsing.	Ongoing inspection/cleaning of gas trap and adherence to policy banning outdoor vehicle washing.
Revised					

6H	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.	<ul style="list-style-type: none"> The sand pile and raw material piles have been contained to prevent release to the adjacent stream. The yard and catch basins were cleaned as required. 	<ul style="list-style-type: none"> Sweep the yard and clean catch basins frequently. Document sweeping and catch basin cleaning.
Revised					
6I	Cover Junk Equipment and Vehicles	All Town Departments	Cover all junk equipment and vehicles.	Junk equipment and vehicles have been removed from the Highway Garage yard.	Vehicles to be provided with covers and drip pans, on an ongoing basis.
6J	Dispose of Hazardous Waste Drums	All Town Departments	Keep a record of drum disposal.	All drums are stored indoors until they can be disposed.	Same as Year 5.
Revised					
6K	Inspect and Cover Dumpsters	Highway Department	Record inspections.	<ul style="list-style-type: none"> Dumpsters have been inspected. Temporary covers were provided for the dumpsters. 	<ul style="list-style-type: none"> Develop a written inspection checklist for dumpsters. Inspect dumpsters yearly to ensure there are no leaks.
Revised					
6L	Document Protocols for Municipal Operations	Highway Department	Copies of policies.	New policies were sent to Town employees, such as the new vehicle washing policy banning outdoor washing of vehicles.	<ul style="list-style-type: none"> Develop written policies for all municipal operations. Send policies to all town employees.
Revised					
6M	Conduct Town Employee Stormwater Training	Highway Department and Engineering	Attendance sheet and copy of program.	<ul style="list-style-type: none"> Fire Department was previously trained for spill containment. Highway Department was previously trained on stormwater. 	<ul style="list-style-type: none"> The Stormwater Committee will coordinate annual stormwater training for Town Departments, in conjunction with implementation of the Stormwater Utility.
Revised					

6a. No additional Good Housekeeping BMPs.

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 6 (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).	<ul style="list-style-type: none"> • Foster cooperation with established and newly formed advocacy groups, such as the Leesville Pond Watershed and Neighborhood Assoc. and the Eddy Pond Watershed Assoc. • Pursue implementation of winter “drawdown” for all Town ponds.
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).	Planned for next permit cycle.
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. Once these basic BMPs are functioning it will be possible to assess their effect. Concurrently, the Town is developing a Capital Improvement Plan for its stormwater system, as part of the ongoing development of the Stormwater Utility. This plan will include recommended BMPs (conceptual locations and designs) to address the identified TMDL issues.

Part IV. Summary of Information Collected and Analyzed

Educational brochures from water billings
 Newspaper clippings for Leesville Pond Cleanup
 “Highway Happenings” newspaper clippings.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed (Land Use Enforcement Officer)	(y/n)	Yes
Annual program budget/expenditures	(\$)	

Education, Involvement, and Training

Estimated number of residents reached by education program(s) (as determined by Auburn Water District service area with associated mailings)	(# or %)	Approx 80%
Stormwater management committee established	(y/n)	Yes
Stream teams established or supported (cooperative efforts initiated with pond/watershed advocacy groups)	(# 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
▪ 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	(%)	90%
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	100%
Outfalls inspected/screened	(# or %)	100%
Illicit discharges identified	(#)	0
Illicit connections removed	(#) (est. gpd)	0
% of population on sewer	(%)	85%
% of population on septic systems	(%)	15%

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)	

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	Every other year, or as needed
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	Every other year, or as needed
Total number of structures cleaned	(#)	
Storm drain cleaned	(LF or mi.)	>500 l.f.
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs.or tons)	
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Landfill
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)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Landfill
Cost of sweepings disposal	(\$)	
Vacuum street sweepers purchased/leased	(#)	0
Vacuum street sweepers specified in contracts	(y/n)	

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)	