

Municipality/Organization: Town of Medway, MA
EPA NPDES Permit Number: MA041132 (expired)
MassDEP Transmittal Number: W-
Annual Report Number Year 9
& Reporting Period: April 1, 2012 – March 31, 2013

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2013)

Part I. General Information

Contact Person: Mr. David D'Amico **Title:** Deputy Director, Dept. of Public Services

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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: Thomas Holder

Title: Director, Dept. of Public Services

Date: April 12, 2013

Part II. Self-Assessment

The Town of Medway Department of Public Services continues to make improvements in operating practices and works to improve overall awareness of stormwater related issues. The Town reviewed the initial draft MS4 permit for Massachusetts. Comments were submitted stating that the overall goals of the program are laudable, however the expense and, in particular, the implementation schedule were overly aggressive. The Department hired Kleinfelder to provide consulting and overall expertise in this area in anticipation of a new permit. Although the permit continues to be delayed, the town understands that certain basic steps must be taken to improve our position and ultimately, general water quality. As reported previously, Town Meeting approved a \$500,000 loan from the State revolving fund loan program. Under the Integrated Water Resource Management Program, initial steps have begun to perform detailed GIS mapping of the stormwater sewer system. In addition, a Citizens Advisory Task Force has been formed to help guide the effort. The Town's GIS mapping company, PeopleGIS is becoming a major provider in Massachusetts of these services. The Town is leading the way in developing, with Kleinfelder and PeopleGIS, on-line real time survey forms for infrastructure documentation. This effort will trickle down to other municipalities region wide.

In the Spring of 2012, the Department of Public Services completed a survey of a major sewer trunk line to identify inflow and infiltration problems. Several problem areas were identified with an estimated flow of 50,000 gallons per day. This water flows to the Charles River Water Pollution Control District for treatment and discharge to the Charles River. Although treated, the flow should be contributing to groundwater resources instead of being directly discharged to the Charles River. Repairs are now being planned along with further trunk line studies.

Under a \$500,000 grant by the Massachusetts Emergency Management Agency, design work is nearly complete to improve drainage for an area neighborhood known as "Brentwood". The area is outlined by Main Street, Coffee Street, and Holliston Street. Portions of the construction are scheduled to begin in 2013. The project will move untreated flood waters into the stormwater sewer lines for proper processing. This will improve overall water quality ultimately flowing to the Charles River.

As planned, the Department worked with the EPA to develop a rain barrel distribution program. 80 rain barrels were issued. The program was very popular and the Department plans to revive the program in 2013. Aside from the immediate water quality benefits, the program provides another opportunity for public outreach and education.

2012 also provided the first full year of operation with our newly installed automated water meter reading program. Aside from the efficiency benefits performing water meter reads remotely, the system is capable of providing hourly read data. The Department is using this data to reach out to customers with high use and non-stopping use. Such patterns typically indicate water leaks and allow us to curtail water consumption. This is particularly important as the Town uses ground water as its source of drinking water.

The Department as usual now, participated in volunteer fundraising events with message boards, brochures, and hand-outs all

designed to raise awareness. Booths were set-up at Touch-A-Truck held at Choate Pond and at Medway Pride Day. These events are used to promote an array of conservation initiatives in water, solid waste recycling, and energy. Two separate educational brochures were developed specifically for Medway, and distributed at these events during 2012. One promoted Recycling and described how rain barrels can help decrease stormwater runoff to streams. The other brochure focused on responsible lawncare and the proper use of pesticides and fertilizers and highlighted the impact of fertilizer nutrient runoff on waterways. A Town Wide Clean-up day is scheduled for 2013 which will again provide opportunities for public participation and outreach.

The Town continues to take its obligation for clean and ample water resources very seriously. We find ourselves in a lead position in several areas and providing valuable resources to other communities. Scarce funding is an on-going concern and it is our hope that a planned and well organized approach will be the order of the day going forward. Keeping with that approach, we have been notified by MassDEP that we have been awarded a Sustainable Water Management Initiative grant in 2013. Part of this effort will look at alternative funding options for the future along with other water management practices.

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 extended (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year extended
1 Revised	NEWSPAPER ARTICLES	DPS/ DAVID D'AMICO	RAISE PUBLIC AWARENESS	Thayer House Town Meeting Presentation and contract award is focusing on Choate Pond and surrounding area. Several RT 109 public meetings have been held and include stormwater topics. Also, award of Integrated Water Resource Management Program & Medway 300 Clean Sweep have had several articles.	Friends of Choate activities and news articles, similar for Thayer House Development Committee and Medway 300. RT 109 25% design hearing scheduled as is Clean Sweep. RT 109 and Medway 300 will generate extensive articles in 2013 dealing with watershed issues.
2 Revised	PUBLIC MEETINGS	BOH/STEPHANIE BACON	CHOATE POND/CHICKEN BROOK CLEAN UP	Public meetings with Conservation Commission, Board of Health, and Parks Commissioners held at duly posted regular meetings. IWRMP Task Force Meeting #1 held publicly to discuss the MS4 Program.	Continue Board of Health meetings on water quality; increased coordination with ConCom through their agent. Additional IWRMP Task Force meetings will take place in 2013
3	SCHOOL OUTREACH	SCHOOL DEPT/DR. JUDY EVANS	SCIENCE CURRICULUM INCLUDES WATER RESOURCES TOPICS	Science curriculum includes topics on stormwater pollution and prevention; additional curriculum was planned, but dropped due to timing; working with local Boy Scout troops on awareness projects.	Work with consultant to develop new elementary programs to include demonstrations on stormwater flows and pollution prevention; work with local Boy Scout troops on resource projects. Continue to use RT 109 project as an educational opportunity.
4	TOWN WEB SITE	DPS/ THOMAS HOLDER	RAISE PUBLIC AWARENESS	Stormwater and water quality information on the Town web site. New web site up and running with additional information.	Continue web announcements.

5	CABLE TV	DPS/ DAVID D'AMICO	RAISE PUBLIC AWARENESS	Discussed topics on stormwater management during Town Meeting, Selectmen, ConCom, and FinCom meetings aired locally. Several discussions about Water Resources Management Project, Thayer House development, and RT 109 project.	Continue discussions at aired meetings.
6	CATCHBASINS STENCILING	DPS/DAVID D'AMICO	STENCIL ALL CATCHBASINS WITH DIRECT DISCHARGE TO OUTFALLS	100% complete.	Review and update information based on system mapping effort. Update and re-stencil as needed.
7	EDUCATIONAL SIGNAGE	DPS/ DAVID D'AMICO	RAISE PUBLIC AWARENESS	Sign board postings continued. Purchased two electronic signboards and began roadside messaging. Distributed 2 different brochures which discuss stormwater pollution at community events.	Continue publishing notices.
8	PUBLIC FEEDBACK	TA/ DPS/ /BOH /SELECTMEN	RAISE PUBLIC AWARENESS	Public at large responding positively to new web site, advertisements, public discussions, and CB stenciling. Increased response from Green Community designation and several grant awards. Revised parks & open space Master Plan surveys performed. PeopleForms surveys providing added feedback.	Continue to gather, analyze, and adjust to feedback. Continue to use PeopleGIS Forms capability for more surveys/public response.
9	GREEN COMMUNITY PROJECTS	TA/DPS/ BUILDING INSP	ASSORTED PROJECTS UNDER GRANT COMPLETED AND PUBLICIZED	DPS worked on several initiatives in solid waste, water, stormwater, etc. Types of programs included rain barrel installs, rigid plastic recycling, no phosphorous fertilizer use, water conservation efforts, etc.	Looking to move to include businesses in opportunities in all areas.

1a. Additions

10	RAIN BARREL POGRAM	DPS	Promote sale of rain barrels. Track the number of rain barrels sold.	DPS had a public sign-up for rain barrels and distributed 80 of them to the public. Brochures of the benefits were made available.	Repeat program.
11	Promote Responsible Yard Waste Management	DPS	Promote Sale of Composters. Track number of composters sold. Distribute brochure that propomotes yards waste receycling and composting. Promote use of the Town's recycling center for disposal of yard waste.		Implement Composter Program (2013/2014) Promote use of the Town's recycling center for disposal of yard waste via the Town's Website (2013/2014)
12	Promote Responsible Pet Waste Management	DPS	Intensify the Existing Pet Waste Management Campaign. Update the existing dog park rules brochure to include information regarding the effects of pet waste on water quality, proper pet waste disposal and what pet owners can do to reduce pollution. Distribute and track the number of brochures distributed with the Henry Garnsey Dog Park Permit Application.		Update the existing dog park rules brochure (2013/2014) Distribute and track the number of brochures distributed (2013/2014)

13	Residential Landscape and Lawn Care Education		Develop a brochure that educates on the impacts of nutrient loading in Lawn Care and provides helpful lawn care and landscaping tips to help reduce the amount of pollutants from entering the storm water collection system. Distribute brochure at pertinent events. Track events where brochure was made available.		The Town will develop the educational brochure and post on the Town's official website. (2013/2014) Brochure will be distributed at pertinent events once it has been developed.
14	General Stormwater Awareness		Develop a poster on Stormwater Pollution for display at Town Hall, Public Library, and outreach events		Develop poster and display at Medway Pride Day. Display at municipal buildings throughout the year (2013-2014)
15	Targeted outreach to Industrial / Commercial / Development audiences		Develop a plan for outreach on audience – specific message		Develop a plan for outreach on audience –specific messages during 2013-14.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year extended (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year extended
1	CROSS COMMITTEE INVOLVEMENT	TOWN ADMINISTRATOR	RAISE PUBLIC AWARENESS	Much improved coordination through single engineer consultant, ConCom Agent, and consolidated DPS. Meeting 1 to 3 times per week on issues. Public invited to participate in IWRMP Task Force. Meeting #1 held on 1/24/13 publicly to discuss the MS4 Program.	Continue regular meetings with key staff. Review permitting requirements. IWRMP Task Force will continue to meet during 2013-14
Revised					
2	HHW DAY	DPS/TOM HOLDER	PUBLIC PARTICIPATION	HHW collection advertised and held w/ 130+ residents	HHW collection day scheduled for May 18 th .
3	POND CLEAN-UPS	PARKS COMM.	HOLD ANNUAL EVENT	Clean-up day at Choate Park held early April, 2012 with Friends of Choate.	Plan similar event for 2013
4	PUBLIC EVENTS	PARKS COMM.	HOLD ONE OR MORE ANNUAL EVENTS	Earth Day celebration held at Choate Park with Friends of Choate. Air Force Band, Summer Concert, Farmers Market, and Christmas Parade end point all held at the park.	Hold similar events. Expanding to an entire Town wide clean-up. Program will be called Clean Sweep.

2a. Additions

5.	PUBLIC ACCESS	DPS/OPEN SPACE COMMITTEE	OPEN BROOK AND RIVER AREAS TO THE PUBLIC AND RAISE AWARENESS	Worked on two areas with volunteers that abut Chicken Brook and the Charles River to improve access, remove invasive species, and provide an educational resource.	Complete "Brookside" and "Charles River Amphitheatre" projects.
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6	Develop and Implement a Means for Residents to Report Stormwater Violations	DPS/IT	Establish the electronic form or web link on the Town's website. Advertise the electronic form or web link Track the number of complaints received Track the problems/incidents remedied as a result of the electronic form/link.		Establish and implement use of the electronic form or web link on the Town's website. (2013/2014)
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3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year extended (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year extended
1	WEEKLY TESTING	DPS/DAVID D'AMICO	MAINTAIN LOW ECOLI LEVELS	Swimming program at Choate suspended. Regular testing suspended.	Reviewing possible reinstatement of swimming at Choate Pond.
Revised		BOH/STEPHANIE BACON			
2	MAINTAIN STORM SEWER SYSTEM MAP W/OUTFALLS	DPS/DAVID D'AMICO	STORM SEWER SYSTEM MAP MAINTAINED	Began integration of scanned images into GIS system. Begin work on new GIS layer of stormwater drainage system. Working with PeopleGIS, Kleinfelder, and in-house staff.	During 2013/2014, the Town will begin its first phase of field verifying the NPDES outfall mapping produced by record plan data. This field work will include GPS locating MS4 outfalls and conducting detailed outfall inspections. Number of outfalls field verified and inspected will be reported in 2013/2014 report.
Revised				The Town purchased several GPS units that will be used in mapping efforts.	
3	SCREEN OUTFALLS FOR ILLICIT CONNECTIONS	DPS/DAVID D'AMICO	SCREEN ALL OUTFALLS AND REMOVE ILLICIT CONNECTIONS	Little progress no funding for system investigation or adequate staff. Began development of a database for inspections and tracking. To be implemented in 2013/2014.	Inspect all outfalls during dry season to gain understanding of the extent of the possible problem if funding permits. Limited funding secured for 2013. Also investigating possible stormwater utility. Awaiting new permit requirements.
Revised					

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year extended (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year extended
1	SILT FENCING, HAY BALES	BUILDING/JOHN EMIDY & CONCOM /KARON SKINNER-CATRONE	NO RUNOFF INTO STORMWATER SYSTEM AT CONSTRUCTION SITES	Conservation Agent and Building Inspector are both working to improve enforcement. Some new regulations proposed, however waiting new stormwater permit from EPA.	Continue enforcement of new regulations. Propose new regulations as needed.
Revised					
2	PUBLIC WAY CLEANUP	DPS/DAVID D'AMICO	INSURE NO SILT ON THE ROAD ADJACENT TO AREA	Stabilization pads at all entrance/egresses during construction; street sweeping / catch basin cleaning completed by contractors & DPS.	Continue compliance with regulations.
Revised					

4a. Additions

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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 extended (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year extended
1	REGULATE STORMWATER MGT & EROSION CONTROL	DPS/DAVID D'AMICO & THOMAS HOLDER/P&EDB	REGULATIONS PASSED	Town engineering firm working through Planning & Economic Development Board to monitor and improve regulation.	Continue to review regulations and propose changes as needed.
Revised					
2	IMPLEMENT IMPROVED ENG DESIGN FOR INFILTRATION & SEDIMENT CONTROL	PLANNING BOARD	NEW DESIGNS INSTALLED	New construction being requested to install forebays to better manage sediment and cultic units for below grade infiltration of storm water. Incorporated tree infiltration wells and gravel wetlands into RT 109 reconstruction project.	Continue progress with new engineering designs incorporating tree infiltration wells and gravel wetlands.
3	REQUIRE AS-BUILT DOCUMENTATION	PLANNING BOARD/ BUILDING INSPECTOR/ DPS	AS-BUILTS RECEIVED AND PROPERLY FILED	As-built plans for construction projects received, reviewed, and filed. Documents being filed electronically filed and cataloged.	Continue as-built plan requirements.
4	PROVIDE LONG TERM MAINTENANCE	DPS/DAVID D'AMICO	LONG TERM MAINTENANCE PERFORMED	Brentwood and Village Street culvert designs complete. Looking to perform in 2013.	Construct Brentwood area drainage work and Village Street culvert work funds permitting.
Revised					

5a. Additions

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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 extended (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year extended
1	WASH DOWN AREA	DPS/DAVID D'AMICO	NEW WASH AREA CONSTRUCTED	Wash bay operational.	Continue operation.
Revised					
2	SALT SHED	DPS/DAVID D'AMICO	COVERED & COFFER DAMED	Feasibility study for new DPS facility completed. Seeking funding for new construction in 3 years. Committee formed to review need/necessity for BOS.	Continue to press need for new DPS Facilities.
Revised					
3	CATCHBASIN SUMP CLEANING	DPS/DAVID D'AMICO	# CATCHBASINS CLEANED	Entire Town cleaned. 400+ catch basin sumps cleaned; cost over \$65,000.	Monitor basins. Funds do not permit deep cleaning on more than an annual basis.
4	PUBLIC WAY CLEANUP	DPS/DAVID D'AMICO	# ROADS SERVICED	Street sweeping / catch basin cleaning complete throughout Town.	Street sweeping / catch basin cleaning.
5	EMPLOYEE TRAINING	DPS/DAVID D'AMICO	# EMPLOYEES TRAINED	Employees trained in SWMP, new by-laws, illicit connections, etc. DPS includes highway, parks, vehicle maintenance, building maintenance, water, sewer, & solid waste under one department.	Revise program, refresher training to be performed.
6	BEAVER CONTROL POLICY	BOH/STEPHANIE BACON, CONCOM/KARON SKINNER-CATRONE	# OF BEAVER DAMS BREACHED	Dams breached rarely and only due to public safety concerns. Water levels rising and causing public concerns.	Install more water level control devices and leave beaver dams in place.
7	REDESIGN AND RECONSTRUCT RT 109 BUSINESS DISTRICT	DPS/DAVID D'AMICO	RT 109 RECONSTRUCTED	State and Federal funds have been earmarked for the design phase of the project. Greenman-Pederson has been retained to perform the design. 25% design hearing scheduled for May. Project on 2016 TIP list.	Hold 25% design public hearing and continue design.
8	TOWN WIDE CLEAN-UP	DPS/DAVID D'AMICO	ALL STREETS CANVASED AND TRASH PICKED-UP	Completed sweep of entire Town using High School students to both clean areas and raise awareness.	Continue program.

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 extended (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year extended
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7a. Additions

1	Develop a Water Quality Strategy for 303d Waters	DPS, Board of Health, Conservation Commission	Summary of pollution prevention efforts, future needs, and responsible parties		Incorporate the preliminary TMDL strategy into the SWMP Update that will be required following the permit re-issuance. Consider information available from Studies in the Charles River Watershed.
2	Outfall Inspection in Charles stormwater-sheds	DPS	Inspect at least 70 Outfalls draining to the Charles River	GIS Map updating with outfall inventory is underway.	Field inspections of at least 70 outfalls within the catchment discharging to the Charles will be completed during Spring 2013.
3	Public Education on TMDL pollutants	DPS, Board of Health, Conservation Commission	Revisit Existing Public Education BMPs to include additional messaging or target audiences to meet anticipated requirements of new MS4	Existing educational materials (septic system brochure, pet licensing materials, yard care brochure) are being revised to incorporate specific messaging related to stormwater and TMDL pollutants. See Public Education /Outreach BMPs for additional detail.	Implement revisions to educational materials for residential audience. Develop new materials for industrial/commercial/developer audiences.

7b. WLA Assessment

Two TMDLs have been finalized for the Charles River Basin; these include the Final TMDL for Nutrients in the Upper/Middle Charles River, CN272.0, May 2011 and the Final Pathogen TMDL for the Charles River Watershed January 2007, CN 0156.0. Both apply to the area of Charles River located in Medway. Concurrently, Medway is evaluating changes to its SWMP and developing its Integrated Water Resources Management Plan (IWRMP) to comply with NPDES MS4 Permit changes, TMDLs and the Massachusetts Sustainable Water Management Initiative (SWMI). Changes to the SWMP and the development of the IWRMP are being considered in the context of all these requirements so that compliance with one program does not jeopardize another. Changes to the SWMP will include actions needed to develop and implement a Phosphorous Control Plan which will be effective in supporting achievement of the WLA for both the Nutrient and Pathogen TMDLs.

Part IV. Summary of Information Collected and Analyzed

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	
Annual program budget/expenditures	(\$)	

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	
Stormwater management committee established	(y/n)	
Stream teams established or supported	(# or y/n)	
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	
▪ community participation	(%)	
▪ material collected	(tons or gal)	
School curricula implemented	(y/n)	

Legal/Regulatory

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

Mapping and Illicit Discharges

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

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)	
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	
Total number of structures cleaned	(#)	
Storm drain cleaned	(LF or mi.)	
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.)		
Cost of screenings disposal	(\$)	

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	

Qty. of sand/debris collected by sweeping	(lbs. or tons)	
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)	

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	
Pre-wetting techniques utilized	(y/n)	
Manual control spreaders used	(y/n)	
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)	
Storage shed(s) in design or under construction	(y/n)	