

Municipality/Organization:	Southwick
EPA NPDES Permit Number:	MAR041022
MassDEP Transmittal Number:	W-045481
Annual Report Number & Reporting Period:	Year 10 April 1, 2012 – March 31, 2013

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

Part I. General Information

Contact Person: Karl Stinehart	Title: Chief Administrative Officer
Telephone #: (413) 569-5995	Email: kstinehart@southwickma.net
Mailing Address: 454 College Highway, Southwick, MA 01077	

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: _____

Title: _____

Date: _____

Part II. Self-Assessment

The Town of Southwick has completed the required self-assessment and has determined that our municipality is in compliance with our Stormwater Management Program and permit conditions. The Town has aggressively mapped outfall locations throughout the Town as well as implemented Cartographic mapping for the Town. In 2012, the Town purchased and is implementing VUEWorks web-based work and asset management software as part of the effort to improve work order assignment, prioritization, tracking and documentation of Southwick's infrastructure. Southwick continues to publicize stormwater-related issues and encourages active participation by townspeople in addressing pollution and stormwater issues. The Town adopted by-laws that address the NPDES requirements while considering the existing regulations and procedures that address stormwater management at the March 15, 2008 and March 16, 2009 Town Meetings. The Southwick Stormwater and Floor Drain Bylaws and the Illicit Connection Bylaw were approved by Town voters at the March 15, 2008 Town Meeting. The Public Sewer Connections Bylaw was adopted May 12, 2003. The Sanitary Sewer Regulations were adopted on January 15, 2009, which also include specific stormwater prohibition provisions. The Town actively enforces these by-laws.

Acronyms Used in the Following Pages:

BOS = Board of Selectmen

Con Com = Conservation Commission

CRC = Citizens Restoring Congamond

DPW = Department of Public Works

LMC = Lake Management Committee

PB = Planning Board

PRC = Parks & Recreation Commission

PVPC = Pioneer Valley Planning 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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities
1A	Classroom Education	School District	Incorporate Water Quality into curriculum	Program dropped due to school funding cuts.	Continue to seek support for funding to restore school program.
Revised					
1B	Westfield Evening News	Con Com / BOS	Publish stormwater / water quality information 1x/year	Drinking water results are published annually	Publish stormwater / water quality information once per year
Revised					
1C	Newspaper Press Releases	BOS	Publish stormwater / water quality information 2x/year	Newspaper articles published on Town Clean-up Day, Drug Take Back Day, Annual Lake Clean-up, sewer system expansion and installation progress, along with on-going drainage projects.	Publish stormwater / water quality information twice per year
Revised					
1D	Local Cable Access	BOS	Post stormwater / water quality information 2x/year	Taped and televised re-runs of “Town Cleanup” and “Annual Lake Cleanup” Please refer to BMP 2C.	Post stormwater / water quality information twice per year.
Revised					
1E	Lakeside Kiosks	LMC	Post stormwater / water quality information 2x / year	Handout information on exotic species to boaters launching at two State Boat Ramps. Also, “No Weeds In / No	Post stormwater / water quality information twice per year.

Revised				Weeds Out” and “Do not feed waterfowl” signs posted at boat ramps. A Visitor Information Center is also present to provide information to the general public. Applicable Town Bylaw and CMR information is also posted on a kiosk at the North Boat Ramp.	
1F	Community Website	BOS	Post stormwater / water quality information 2x / year	CRC and Commonwealth of Massachusetts websites are linked through the Town’s website; LMC, Con Com and Community Preservation Committee also have pages on the Town website. The DPW webpage also includes information on Highway Division activities including catch basin repairs and cleaning, street sweeping and roadside cleanup. Town Cleanup Day was publicized on the Town website. These pages will continue to be expanded to include more stormwater information as the program develops.	Post stormwater / water quality information twice per year.
Revised					

1a. Additions

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities
2A	Wetland Cleanup	Southwick Rotary / Con Com	Support interested groups with trash pickup.	During 2012, the Southwick Rotary sponsored seven highway clean-ups along College Highway, averaging 15 to 20 bags per cleanup. Con Com sponsored a major cleanup that resulted in ~15 cubic yards of trash picked up. All trash collected was disposed of at the transfer station.	Continue to support interested groups by collecting trash bagged by participants
Revised					
2B	Student Water Quality Monitoring	School Department	Conduct water quality sampling and analysis	The schools were unable to continue lake water sampling program due to budget cuts.	Continue to seek support for funding to restore school program.
Revised					
2C	Annual Lake Clean-Up	CRC	Conduct Clean-Up Day	The CRC and LMC annual clean-up of Lake Congamond occurred on June 2, 2012 in which 14 volunteers removed downed trees and debris from Canal Brook (lake outlet). 1 trailer load of logs and 4 truckloads of debris were removed.	Hold lake clean-up day in Summer 2013.
Revised					
2D	Lakeside Maintenance	LMC	Maintain trash receptacles at Lake Congamond	LMC continued to maintain ~25 trash receptacles at public access points to Lake Congamond	Continue to maintain trash receptacles at public access points to Lake Congamond
Revised					
2E	Volunteer Water Quality Monitoring	CRC	Conduct water quality sampling and analysis	Water quality sampling & analysis was conducted monthly at Lake	Continue water quality sampling and analysis. A consultant has been

Revised				Congamond. Analyses include: temperature, pH, dissolved oxygen, conductivity, phosphorus, and chlorophyll. The Town's consultant prepared a detailed report summarizing the findings and recommendations. The Canal Restoration Subcommittee is in the process of developing a lake monitoring and action plan for long-term lake improvements.	retained by the Town to perform a detailed study of lake conditions and to make long term recommendations. In addition, the LMC spawned a Canal Restoration Subcommittee that was approved by the BOS on 3/22/11 to address long term canal and lake water quality improvements.
Revised					

2a. Additions

	Town-Wide Clean-Up	CRC / Con Com / DPW	Conduct Town-Wide Clean-up Day	The Rotary Club sponsored 7 clean-ups of 1 mile of College Highway in 2012.	The Rotary Club plans to continue its work on College Highway via the "Adopt a Highway" program. A 2013 town-wide cleanup is currently being planned.
	Plantings for Erosion Control	Scouts	Plant trees to control erosion	The Scout's primary project for 2011 and 2012 is creating a raised walk access to Great Brook behind Southwick Town Hall.	Continue to encourage Scouts to continue plantings in this area as well as other areas in Town in need of erosion control.
	Household Hazardous Waste Day			The Board of Health typically hosts a household hazardous waste disposal once per year. The 2012 Household Hazardous Waste Collection day was canceled due to a lack of funds. The Health Department sponsored a Drug Take Back Day on April 28, 2012. Four large boxes of prescription drugs were collected.	Continue to seek funds to hold household hazardous waste disposal event for residents.

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities
3A Revised	Mapping Stormwater Outfalls	DPW	Develop map of outfalls	The Town/DPW contracted the services of Cartographic, who mapped the Town for the Assessor's Office, mapped the catch basins and outfalls in the Town, along with the entire water and sewer system. This system, along with GPS and data system were made fully operational in 2008. The DPW received FY2012 funding for Asset Management Software that will greatly enhance the ability to map and track stormwater system components, work orders and actions.	Continue to update system as necessary and map additional outfalls as found. Continue to implement asset management software.
3B Revised	Develop Illicit Discharge Program	DPW	Draft Plan	DPW has an existing Curtain Drain/ Foundation Drain Policy allowing connection to catch basin and another bylaw that prohibits discharging of sump pumps into the street or catch basins. Periodic inspections are conducted by DPW for presence of gray water or bacteria, which would result in disconnection from the system. Through storm drain outfall mapping process, potential illicit connections (sump pumps) continue to be identified and addressed. Townspeople voted to approve the new Illicit Discharge and Floor Drain Bylaws at the March 15, 2008 Special Town Meeting	Revise procedures/ plan as necessary in future.
3C	Non-Stormwater By-Law	BOS/DPW	Draft by-law.	During the March 2008 Town Meeting, the Town adopted an Illicit Connection	Enforce existing by-law.

Revised				By-Law regulating illicit connections and discharges to the storm drain system.	
3D	Illegal Dumping	DPW	Perform regular patrols/cleanup	DPW performed regular patrols and cleaned up illegal dumped trash. Police have ticketed those found responsible for illegal dumping. The DPW continues to pull Transfer Station Permits for violating Transfer Station policies and/or dumping trash along the road.	Continue to perform regular patrols/cleanup.
Revised					
3E	Water Quality Monitoring	BOH	Regular sampling at beach sites in summer	BOH performed weekly sampling at Town Beach when open from June through August 2012. No closures were reported.	Continue to perform weekly water quality monitoring at beaches during summer months.
Revised					
Revised					

3a. Additions

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities
4A Revised	Construction Run-Off By-Law	PB / Con Com / DPW	Draft By-Law	The Town, with the assistance of PVPC, drafted a by-law which was approved by Town voters at the March 16, 2009 Special Town Meeting. Building Department is distributing information packages on NPDES construction and requiring builders to sign off on receipt of package. Planning Board and DPW are also informing developers of NPDES requirements and have incorporated proof of NPDES NOI submittal and development of SWPPP as permitting requirement	Continue to work with developers to incorporate BMPs during construction activities.
4B Revised	Plan Review	PB / Con Com / DPW	Enforcement under by-law	Continued plan review per new by-laws.	Continued inspection / reporting under new by-law.
4C	Inspection / Reporting	DPW / PB / Con Com	Enforcement under by-law	Continued inspection / reporting under new by-laws. Town officials have worked with developers to ensure compliance with required BMPs during construction. A consultant was hired to oversee stormwater management, etc on a new development. The developer has been cited and fined by Con Com for violations and the violations continue to be corrected when identified. DPW cited 3 property owners for illegal discharges that have been corrected. Con Com issued 3	Continued inspection / reporting under new by-law.

Revised				citations/fines for stormwater violations.	
Revised					

4a. Additions

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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities
5A Revised	Post-Construction Runoff By-Law	PB / Con Com / DPW	Draft By-Law	The Town, with the assistance of PVPC, drafted a by-law which was approved by Town voters at the March 16, 2009 Special Town Meeting.	Continue to monitor need for updating bylaws.
5B Revised	Construction Site Plan Review	PB / Con Com / DPW	Enforcement under By-Law	Continued plan review per new by-law.	Continued inspection / reporting under new by-law.
5C Revised	Stormwater System Maintenance Plan	PB / Con Com / DPW	Enforcement under By-Law	Continued inspection / reporting under new by-law.	Continued inspection / reporting under new by-law.
Revised					

5a. Additions

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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities
6A Revised	Municipal Maintenance Activity Program	DPW / PRC	Evaluate and draft additional policies	All roads swept as part of spring cleanup. Some are swept 2x/year. All catch basins are vacuumed 1x/year after sweeping, some 2x/year (by lakes).	Continue with annual sweeping and catch basin cleaning program. Draft new policies as necessary.
6B Revised	Training of all Municipal Activities	DPW	Initial good housekeeping training	In-house training is done for new hires or anyone transferring within DPW. Good housekeeping training attended by Town Officials, maintenance and DPW staff on April 26, 2012.	Conduct good housekeeping training. Training session for Town Officials, maintenance and DPW staff is scheduled for April 4, 2013.
6C Revised	Catch Basin Cleaning Program	DPW	Clean 90% of catch basins annually	Town purchased its own vacuum/jet rodder truck in 2005 and now performs catch basin maintenance with DPW employees. 100% of town catch basins within the entire town were cleaned in the months of May through October, 2012.	Clean at least 90% of catch basins in 2013.
6D Revised	Street Sweeping & Cleaning	DPW	Sweep 90% of the streets annually	100% of paved town streets within the entire town were swept in the months of April, May and June, 2012. Approximately 25% of streets within urbanized area were swept twice.	Sweep at least 90% of streets in 2013.
	Prescription & Pill Collection	SPD	Try to host one collection day per year	New prescription collection day program initiated in 2012 sponsored by	Sponsor event during 2013

Revised				Southwick Police Department & Board of Health	
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6a. Additions

	Exotic Aquatics Bylaw	LMC		Townpeople voted 11/30/99 to accept LMC proposed “No Weeds In/No Weeds Out” Town bylaw that addresses boats launching on Congamond Lakes – Ramp Attendants inspect boats entering/leaving ramps. DCR summer employee helped pass out info and educate boaters during summer 2011. New Visitor Center has lots more information available to public.	Continue reminding public, boat inspection process & giving out handouts on preventing spread of nuisance aquatics. Depending on FY2014 budget, DCR plans to supply summer employees in 2013 to assist in monitoring boats in/out of ramps and educate users.
	Stormwater Management	LMC/DPW		LMC began seeking Town Funds & matching grants in 1995 to address erosion, sedimentation, etc. LMC received grants in 1995, 1997, 1999, 2001 & 2008 for various catch basin, erosion control, sedimentation chambers, etc. New 65-space public parking area designed & built in 1998 adjacent to boat ramp with 100% of stormwater sheet flowing onto grassy area where it percs naturally into ground. The Town & PVPC obtained S319 and municipal funding to implement stormwater quality improvements along Congamond Ponds. This work included 16 BaySeparators, 2 detention/infiltration ponds, and 9 grassed swales that address 16 major stormwater outfalls on the Congamond Ponds.	Continue seeking funding for projects in watershed. Work with PVPC (S319 project manager), consulting engineering company, and contractor to implement BMPs.

	Stormwater Management (cont.)	DPW		Banks of infiltrators with emergency overflow were added to an outfall by the Rail Trail that served a small development and another local street. Two business expansion projects, a large park project and one new development have installed separators and infiltrators as recommended by the Town. In 2012, the DPW added a new deep sump catch basin, a deep sump DMH and rip-rap swale to help clean stormwater and reduce erosion on an existing outfall on Depot Street. A major DPW stormwater management project followed by paving on Nicholson Hill Road was completed. The project included 18 deep sump catch basins, 3 StormCeptors, infiltrators, plunge pools & curtain drains.	Continue to seek opportunities to upgrade stormwater infrastructure to improve water quality. The LMC & DPW are working with PVPC to seek another S319 Grant to help address additional stormwater systems that outfall into Congamond.
	Waterfowl Bylaw	LMC		Townpeople voted 3/14/02 to accept LMC proposed "Do Not Feed Waterfowl" Town bylaw that setup fines for feeding waterfowl. Ramp Attendants hand out literature on "why" not to feed waterfowl & LMC installed "Do Not Feed Waterfowl" signs at ramps & public areas. Compliance is nearly 100% without having to issue fines.	Continue reminding ramp users & public on benefits of not feeding waterfowl (besides fines).
	Nutrient Reduction	LMC/DPW		The LMC/DPW sponsored an "Organic Landscapes Workshop" held at Town Hall on 3/23/10. The 22 attendees heard information presented by PVPC on how to have green lawns without nasty chemicals.	Depending on funding availability, PVPC is planning an Organic Lawn Care Workshop for 2013 to coincide with the normal lawn treatment times.

	Waste Oil and Antifreeze	DPW		Added waste oil & antifreeze collection depot for recycling at the Transfer Station. Residents may bring in motor oil, hydraulic oil, and antifreeze.	Continue to collect waste oil and antifreeze from residents.
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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 10 (Reliance on non-municipal partners indicated, if any)	Planned Activities
7A	No TMDL for waters in Southwick				
Revised					
Revised					

7a. Additions

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7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

- The Town notes the high involvement of its citizens and various community and lake organizations in improving town-wide environmental conditions.
- Twelve weekly water samples were collected and analyzed for coliform at the Town Beach located in South Pond during the 2012 beach season. One E. coli sample was 400 and the beach was closed for one week. The Town Beach on South Pond was closed for one day in July for treatment of a cyanobacteria algae bloom during 2012.
- Extensive water analysis by a consultant during 2009 showed the mean levels of total phosphorus ranging from 24 ppb to 103 ppb depending on depth and which (of the three) ponds. Phosphorus levels greater than 50 ppb are indicative of eutrophic conditions and can be indicative that the Congamond lakes are being affected by stormwater runoff from roads and/or waterfront properties. Extensive water testing was performed by volunteers during 2012 and that data is being used by the Canal Restoration Subcommittee as part of their long-term planning efforts.

Part V. Program Outputs & Accomplishments (OPTIONAL)

(Since beginning of permit coverage unless specified otherwise by a **, which indicates response is for period covering April 1, 2012 through March 31, 2013)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed – Currently being covered by DPW, Con Com & Board of Health – Long range staffing and necessary funding being assessed. Con Com hired an outside consultant under MGL 44§ 53G to perform peer reviews of new subdivision stormwater management plans. DPW secured \$30K funding in FY2012 for Asset Management software that will aid in identifying, categorizing tracking and servicing parts of the stormwater utility. The system was procured. Training and customizing of the VueWorks product to reflect Southwick’s needs continues on an ongoing basis.	(y/n)	Y & N (See note left)
Annual program budget/expenditures **	(\$)	25,000
Total program expenditures since beginning of permit coverage	(\$)	Unknown
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		General Fund +S319 Grants

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %)	20%
Stormwater management committee established	(y/n)	Y
Stream teams established or supported – LMC Canal Brook Restoration Subcommittee was formed in March 2012.	(# or y/n)	Y
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	5-6 miles/ yr
Shoreline cleaned since beginning of permit coverage	(mi.)	30 – 40 miles
Household Hazardous Waste Collection Days		Normally 1x / year
▪ days sponsored **	(#)	

▪ community participation ** (Waste oil/antifreeze and latex paint taken at Transfer Station)	(# or %)	
▪ material collected **	(tons or gal)	
School curricula implemented May be restored pending funding restoration by regional school district	(y/n)	NA

Legal/Regulatory

	<i>In Place Prior to Phase II</i>	<i>Reviewing Existing Authorities</i>	<i>Drafted</i>	<i>Draft in Review</i>	<i>Adopted</i>
Regulatory Mechanism Status (indicate with “X”)					
▪ Illicit Discharge Detection & Elimination					3/15/2008
▪ Erosion & Sediment Control					3/16/2009
▪ Post-Development Stormwater Management					3/16/2009
Accompanying Regulation Status (indicate with “X”)					
▪ Illicit Discharge Detection & Elimination					3/15/2008
▪ Erosion & Sediment Control					3/16/2009
▪ Post-Development Stormwater Management					3/16/2009

Mapping and Illicit Discharges

	(Preferred Units)	Response
Outfall mapping complete	(%)	100%
Estimated or actual number of outfalls	(#)	~225
System-Wide mapping complete (complete storm sewer infrastructure) Structure locations GPS'd, flows paths not completed – New Asset Management system should be installed in June 2012 and stormwater data collected will repose in this new system.	(%)	100%
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	100%

Outfalls inspected/screened **	(# or %)	~200
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	100%
Illicit discharges identified **	(#)	2
Illicit discharges identified (Since beginning of permit coverage)	(#)	~40
Illicit connections removed ** Owner notified 2x; Fines to follow if not corrected.	(#); and (est. gpd)	0
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	~32
% of population on sewer	(%)	25
% of population on septic systems	(%)	75

Construction

(Preferred Units) Response

Number of construction starts (>1-acre) ** (Adjacent ANR lots total >1 acre are not covered by regs)	(#)	7
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	80
Site inspections completed ** (3 rd party weekly site reviews for TOS + DPW & Con Com reviews	(# or %)	~15
Tickets/Stop work orders issued ** Con Com issued STOP WORK at site	(# or %)	~5
Fines assessed/collected ** Fines issued by Con Com	(# and \$)	0/\$0
Complaints/concerns received from public **	(#)	~6

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	75
Site inspections (for proper BMP installation & operation) completed **	(# or %)	~30
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	Y
Low-impact development (LID) practices permitted and encouraged	(y/n)	Y

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	1x / year
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	1x / year
Qty of structures cleaned **	(#)	~1,100
Qty. of storm drain cleaned **	(%, LF or mi.)	~200'
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	700-800 tons (dry weight)
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Town landfill / compost

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)** Part of DPW overall tasks/budget	(\$)	~\$60,000
• Hourly or per basin contract rate ** Performed in-house since 2005; Estimate is for 2 DPW workers and vac truck	(\$/hr or \$ per basin)	~\$125/hr
• Disposal cost** (Performed in-house since 2005, estimated vac cost if contracted out)	(\$)	~\$30,000
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	0
• Vacuum truck(s) owned/leased	(#)	1
• Vacuum trucks specified in contracts	(y/n)	0
• % Structures cleaned with clam shells **	(%)	0
• % Structures cleaned with AquaTech B10 **	(%)	100

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	1x / year
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	1x / year
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	1,200 – 1,300 tons

Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Town landfill / compost
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)** Contracted cost including in-house trucking)	(\$)	\$60,000
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.)	\$110/hr
• Disposal cost**	(\$)	
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	0
• Vacuum street sweepers owned/leased	(#)	0
• Vacuum street sweepers specified in contracts	(y/n)	Y
• % Roads swept with rotary brush sweepers **	%	100
• % Roads swept with vacuum sweepers **	%	0

Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	NA
▪ Herbicides	(lbs. or %)	NA
▪ Pesticides	(lbs. or %)	NA
Integrated Pest Management (IPM) Practices Implemented	(y/n)	

	(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	15% NaCl 5% CaCl₂ 0% MgCl₂ 0% CMA 0% Kac 0% KCl 80% Sand
Pre-wetting techniques utilized **	(y/n or %)	Y
Manual control spreaders used **	(y/n or %)	Y
Zero-velocity spreaders used **	(y/n or %)	N
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/l _n mi. or %)	N/C
Estimated net reduction or increase in typical year sand application rate **	(±lbs/l _n mi. or %)	N/C
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100
Storage shed(s) in design or under construction	(y/n or #)	N
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Y

Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	N/A
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	N/A
• Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	N/A