

Municipality/Organization: Town of Medway, MA

EPA NPDES Permit Number: MA041132 (expired)

MassDEP Transmittal Number: W-

Annual Report Number Year 8
& Reporting Period: April 1, 2010 – March 31, 2011

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2011)

Part I. General Information

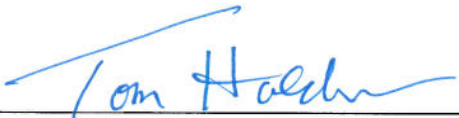
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Certification:

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: August 29, 2011

Part II. Self-Assessment

With a central DPW structure under the Department of Public Services, the Town of Medway is now able to work in a unified fashion to improve its overall stormwater management program and capabilities. The Town faces substantial shortfalls in funding affecting all public services including schools and public safety. Capital funding in the short term is almost non-existent. Even in this financial climate, the Board of Selectmen have voted to place a \$500,000 article on the annual Town Meeting warrant for a Comprehensive Water Resources Program. This highlights the Town's overall commitment to our limited water resources.

In addition to the above, 2011 is expected to bring a number of other improvements. The Town has been named a Green Community by the Commonwealth of Massachusetts. Although geared toward energy conservation, the Town is using the opportunity further water conservation and water quality awareness in our community. The Town has also been awarded an emergency management grant to correct drainage problems in an entire neighborhood area. Total of the grant and matching Town funds will exceed \$800,000 for this project. We have also moved aggressively to correct drainage related problems in three other areas at a total cost of over \$100,000.

In 2010, the Town undertook several initiatives that will further improve stormwater quality. We are attempting to move in a direction consistent with EPA's new permit requirements even though these have not been issued at this time. Along with the programs just getting underway in 2011, the Town has implemented the following in 2010:

1. The Town of Medway contracted with PeopleGIS to provide GIS services for the Town. The EPA has stated and we agree that a comprehensive GIS map is a key component of stormwater management. Currently, the Town has layers covering streets and parcels, water, sewer, and other Town services. Next steps involve mapping the storm drain system and making other technical information available to DPS staff.
2. The Town undertook a records retention project in 2009. This included digitally scanning the majority of our infrastructure maps. A catalog of the drawings by street, cross referenced by side streets has been completed.
3. Another catalog of sketches dealing with the storm drain system has been prepared. All sketches were prepared by DPS staff, scanned, and cataloged. This is a precursor to full GIS mapping of the stormwater drainage system.
4. The Town has secured funding for the redesign of Rt 109 in the business district. A design committee was created from several groups to work with an engineering firm on the design. We have identified several locations to install stormwater mitigation/treatment measures along the route which should substantially improve stormwater quality. We have stressed to our engineers that even if large mitigation areas are not available, any areas that can help attenuate "first flush" flows are desirable.

5. Plans have begun to improve drainage control on Village Street, Pond Street, and Olsen Circle. These are in design now and will be implemented in 2011.

Even under severe financial constraints, the Town is taking its obligation for a clean and ample water supply very seriously. The Town is under a host of other regulatory obligations in regards to education, safety, and health of our citizens. Increased funding through mechanisms like a stormwater discharge utility remains an unpopular option due to the economic climate.

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	New emphasis on Choate Pond as a Town center/open space is being highlighted, Charles River Pollution Control District upgrades published, hazardous waste day, and proposed new highway facility are raising awareness.	Friends of Choate activities and news articles, similar for Thayer House Development Committee and Medway 300.
2 Revised	PUBLIC MEETINGS	BOH/BILL FISHER	CHOATE POND/CHICKEN BROOK CLEAN UP	Public meetings with Conservation Commission, Board of Health, and Parks Commissioners held at duly posted regular meetings.	Continue Board of Health meetings on water quality; increased coordination with ConCom through their agent.
3	SCHOOL OUTREACH	SCHOOL DEPT./DR. JUDY EVANS	SCIENCE CURRICULUM INCLUDES WATER RESOURCES TOPICS	Science curriculum includes topics on stormwater pollution and prevention; working with local Boy Scout troops on awareness projects.	Work with elementary curriculum advisor to include demonstrations on stormwater flows and pollution prevention; work with local Boy Scout troops on resource projects.
4	TOWN WEB SITE	DPS/ THOMAS HOLDER	RAISE PUBLIC AWARENESS	Stormwater and water quality information on the Town web site	Continue web announcements. Revise web site and make more user friendly.
5	CABLE TV	DPS/ DAVID D'AMICO	RAISE PUBLIC AWARENESS	Discussed topics on stormwater management during Selectmen and FinCom meetings aired locally.	Continue discussions at aired meetings. Revamp web site with more content, better navigation.
6	CATCHBASINS STENCILING	DPS/DAVID D'AMICO	STENCIL ALL CATCHBASINS WITH DIRECT DISCHARGE TO OUTFALLS	100% complete. Working others into school demonstration and curriculum.	Update and re-stencil as needed.
7	EDUCATIONAL SIGNAGE	DPS/ DAVID D'AMICO	RAISE PUBLIC AWARENESS	Sign board at Choate Park complete and posted; signs posted at dog park on proper disposal of pet wastes.	Continue publishing notices.

8	PUBLIC FEEDBACK	TA/ DPS/ /BOH /SELECTMEN	RAISE PUBLIC AWARENESS	Public at large responding positively to web site and CB stenciling. Believe the web site needs an overall though. Increased response from Green Community designation. Revised Master Plan and open space surveys released.	Continue to gather, analyze, and adjust to feedback. Revamp web site. Use PeopleGIS Forms capability for more surveys/public response.
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1a. Additions

9	GREEN COMMUNITY PROJECTS	TA/DPS/ BUILDING INSP	ASSORTED PROJECTS UNDER GRANT COMPLETED AND PUBLICIZED	New	Assorted projects financed by DOER Grant are completed and use opportunity to further clean water awareness.
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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.	Continue regular meetings with key staff. Review permitting requirements.
2	HHW DAY	DPS/TOM HOLDER	PUBLIC PARTICIPATION	HHW collection advertised and held w/ 175+ residents	HHW collection day scheduled for May 19 th .
3	POND CLEAN-UPS	PARKS COMM.	HOLD ANNUAL EVENT	Clean-up day at Choate Park held early April, 2010 with Friends of Choate.	Plan similar event for 2011.
4	PUBLIC EVENTS	PARKS COMM.	HOLD ONE OR MORE ANNUAL EVENTS	Earth Day celebration help at Choate Park with Friends of Choate.	Held 4/23/10. Add activities Air Force Band and Summer Concert series at Choate Park.

2a. Additions

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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 Revised	WEEKLY TESTING	DPS/DAVID D'AMICO BOH/BILL FISHER	MAINTAIN LOW ECOLI LEVELS	Testing done through the season with continued improvement over past years.	Will probably discontinue due to lack of funding.
2 Revised	MAINTAIN STORM SEWER SYSTEM MAP W/OUTFALLS	DPS/DAVID D'AMICO	STORM SEWER SYSTEM MAP MAINTAINED	All paper maps scanned and cataloged. Stormwater structures sketched, scanned, and cataloged.	Integrate scanned images into GIS system. Begin work on new GIS layer of stormwater drainage system.
3 Revised	SCREEN OUTFALLS FOR ILLICIT CONNECTIONS	DPS/DAVID D'AMICO	SCREEN ALL OUTFALLS AND REMOVE ILLICIT CONNECTIONS	Little progress no funding for system mapping or adequate staff. Screening manholes as we do inspections for schematic mappings.	Inspect all outfalls during dry season to gain understanding of the extent of the possible problem if funding permits.

3a. Additions

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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.	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 culic units for below grade infiltration of storm water.	Continue progress with new engineering designs. Now looking at 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.	Continue as-built plan requirements. Catalog new drawings for easy recall.
4	PROVIDE LONG TERM MAINTENANCE	DPS/DAVID D'AMICO	LONG TERM MAINTENANCE PERFORMED	Little long term maintenance performed unless problems identified. Requires dedicated staff that is not funded.	No change; request for added staff not funded.
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 Revised	WASH DOWN AREA	DPS/DAVID D'AMICO	NEW WASH AREA CONSTRUCTED	Washbay constructed and operational.	Continue operation.
2 Revised	SALT SHED	DPS/DAVID D'AMICO	COVERED & COFFER DAMED	On-going maintenance. Reconstructed south side for improved performance.	Feasibility study for new DPS facility funded. Complete report and seek funding for new construction/new location in 5 years. Currently little support for new facility due to lack of funds.
3	CATCHBASIN SUMP CLEANING	DPS/DAVID D'AMICO	# CATCHBASINS CLEANED	Entire Town cleaned. 400+ catchbasin sumps cleaned; cost over \$33,000.	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/BILL FISHER, CONCOM/KARON SKINNER-CATRONE	# OF BEAVER DAMS BREACHED	Less than 5 dams breached and only due to public safety concerns. Much reduced from previous seasons.	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.	Hire engineering firm and begin design.

6a. Additions

8	TOWN WIDE CLEAN-UP	DPS/DAVID D'AMICO	ALL STREETS CANVASED AND TRASH PICKED- UP	New	Complete sweep of entire Town using High School students to both clean areas and raise awareness.
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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 extended (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year extended
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7a. Additions

7b. WLA Assessment

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)
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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
	% K _{ac}
	% 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)