

TOWN OF WINTHROP



1084
Received
7-11-06

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Office of the
Department of Public Works
100 Kennedy Drive
Winthrop, MA 02152
David J Hickey, Jr, Director
Phone: (617) 846-1341
Fax: (617) 539-1545

July 5, 2006

Mr. Jason Turgeon
US EPA, Region 1
One Congress Street
Suite 1100 (SEW)
Boston, MA 02114-2023

Re: Town of Winthrop Annual Report
EPA NPDES Permit No. MAR 041084

Dear Mr. Turgeon:

Please find attached the Town of Winthrop's Permit Year 3 Annual Report. The report documents the conditions, to the best of my knowledge and belief at this time. The Town has made much progress this year both with catch basin cleaning, nearly 100% complete in 14 months, and street sweeping. We intend to focus on updating our plans and installing semi permanent stenciling on storm drains during the upcoming permit year.

If there are any questions, please do not hesitate to contact us.

Sincerely,

David J. Hickey, Jr. PE
Director of Public Works

Cc: Thelma Murphy, MA DEP
Winthrop Conservation Commission
SAC Committee Members

Municipality/Organization: Town of Winthrop

EPA NPDES Permit Number: MAR041084

MaDEP Transmittal Number: W- 040721

Annual Report Number

& Reporting Period: No. 3: March 05-March 06

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: David J. Hickey, PE

Title: Director of Public Works

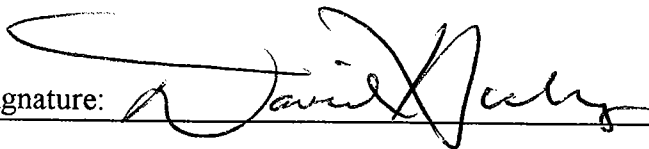
Telephone #: 617 846 1341

Email: dhickey@town.winthrop.ma.us

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:

DAVID HICKEY

Title:

DIRECTOR OF PUBLIC WORKS

Date:

JULY 5, 2006

Part II. Self-Assessment

NOI section 2c – Catch Basin Stenciling, the Town has had difficulty finding volunteer groups / agencies to participate in this task and we remain concerned with the overall cost benefit. After conducting some research we have decided to purchase seals which we intend to install on streets with high pedestrian volume and near resource areas.

NOI section 3a – Based primarily on a shortage of resources the Town has been delayed in field verifying outfall locations and conditions and updating CADD files.

NOI section 4 a thru e and 5 a thru 3 – Under a new government structure (Town Council) all bylaws and site development standards are being Adding storm water updated and re-codified. This has delayed implementation of new regulations.

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
1a Revised	Nonpoint Source Pollution Posters	DPW Director	Distribute posters	The Town distributed posters at Library, Town Hall, All Schools, Post Office, Chamber of Commerce and DPW. Winthrop cable access TV (WCAT) is rotating 4 public service announcements.	Town plans to obtain new artwork
1b Revised	Local Cable Messages	DPW Director	Obtain PSA's Air PSA's	The Town has completed these goals with the assistance of an outside vendor (Earth911) and the Winthrop Cable Access Television	Rotate messages
1c Revised	Auto Repair Shop Brochures	DPW Director	Print and mail letters	The DPW distributed letters to auto repair shops in April.	Distribute letters
1d Revised	Update Town Web Site	DPW Director And Winthrop GIS Department	Frequent update	Posted web page with dedicated storm water link.	Develop quarterly messages

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 2 (Reliance on non-municipal partners indicated, if any) The SAC has conducted two meetings and is investigating the need for ordinance/by-laws changes.	Planned Activities – Permit Year 3
2a	Form Stormwater Advisory Committee (SAC)	DPW Director	Form SAC Conduct meetings	The SAC was formed in the winter of permit year 2, inclement weather has limited the number of meetings	Convene SAC
Revised					
2b	Hazardous Waste Collection	DPW	Collect once per month years 3-5	Collected HHW from residents during the first Saturday of each month May through October and two weeknights during the summer.	Continue existing program
Revised	Household Hazardous Waste Collection	And the Winthrop Recycling Committee	DPW Director Collect once per month during non-winter months		Initiation and implementation of cell phones and mercury products
2c	Implement Catch Basin Stenciling Program	DPW Director	Design & obtain stencil Organize stencils groups –stencil 25% of catch basins	Obtain stamp samples	Stamp 50% of all catch basins Stamp 10% of all catch basins in highly visible areas

Revised					
2d	Hold Water Resource Cleanup Days	DPW Director	Collect trash and debris	Town cleaned Yirrell Beach, Donovans Beach, & the Town Landing in the fall & Spring and participated in cleanup days at Winthrop Shore Beach (DCR event), Bell Isle Marsh (Friends of Bell Isle Marsh event) and Snake Island (local volunteers)	Continue existing program
Revised		Conservation Commission			
Revised					

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
3a	Map Outfalls and Receiving Waters	DPW Director	Update Existing Maps Field verify information	Updated CADD file	Field investigate outfalls, Create Digital Maps from Existing Records Update Existing Records
Revised					
3b	Review Existing Bylaws and Regulations	Planning Department	Draft & Pass storm water Bylaws	Town hired a consultant and drafted Bylaws.	Present to Town Manager & Town Council for adoption as new Bylaws
Revised		Planning Board & DPW Director			
3c	Develop Illicit Discharge Detection & Elimination Plan	Planning Department	Draft & Pass storm water Bylaws	Town hired a consultant and drafted Bylaws.	Present to Town Manager & Town Council for adoption as new Bylaws

Revised		Planning Board & DPW Director			
3d	Develop/Modify General Illicit Discharge Bylaw	Planning Department	Draft & Pass storm water Bylaws	Town hired a consultant and drafted Bylaws.	Present to Town Manager & Town Council for adoption as new Bylaws
Revised		Planning Board & DPW Director			
3e	Present Bylaw for Town Meeting Action	Planning Department	Town Council to adopt		
Revised	<i>Present to Town Council</i>	Planning Board & DPW Director			
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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
4a	Review Existing Site Inspection Practices	Planning Department	Develop regulatory compliance analysis Develop site inspection checklists	Met with Building Inspector	Examine EPA & DEP requirements 1. Develop site plan submittal ordinances, implementing storm water checklist
Revised		Planning Board & DPW Director			
4b	Develop/Modify Site Inspection Program	Planning Department	Draft program and review with SAC		Modify checklist based on experience Estimate costs and examine applicability of fees Develop program
Revised		Planning Board & DPW Director			
4c	Review Existing Bylaws and Regulations	Planning Department	SAC adequacy report on existing practices and field controls		Document costs Document results
Revised		Planning Board & DPW Director			
4d	Develop/Modify Bylaws for Construction Site Runoff	Planning Department	Develop bylaw based on 4a thru c		Research similar bylaws Meet with local contractors Develop sample bylaw Conduct hearings
Revised		Planning Board & DPW Director			
4e	Present Bylaw to Town Council	Planning Department	Submit Town Meeting Article		Prepare cost estimate Prepare Town Meeting Article Prepare for presentation in permit year 3
Revised		Planning Board & DPW Director			

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
5a	Review Existing Site Inspection Practices	Planning Department	Develop regulatory compliance analysis Develop site inspection checklists	DPW staff attended training session and obtained sample documents	Meet with Building Inspectors and DPW staff to document practices Develop inspection checklist Conduct and document results of site inspections Examine EPA & DEP guidelines
Revised		Planning Board & DPW Director			
5b	Develop/Modify Inspection & Maintenance Practices	Planning Department	Draft program and review with SAC		Modify checklist based on experience Estimate costs and examine applicability of fees Develop program
Revised		Planning Board & DPW Director			
5c	Review Existing Bylaws and Regulations	Planning Department	SAC adequacy report on existing practices and field controls		Document costs Documents results
Revised					
5d	Develop/Modify Bylaws for Post Construction Site Runoff	Planning Department	Develop bylaw based on 4a thru c		Research similar bylaws Meet with local contractors Develop sample bylaw Conduct hearings
Revised		Planning Board & DPW Director			

4e	Present Bylaw to Town Council	Planning Department	Submit Town Meeting Article		Prepare cost estimate
Revised		Planning Board & DPW Director			Prepare Town Meeting Article
					Prepare for presentation in permit year 3
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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
6a	Maintain Street Sweeping Program	DPW	Sweep all streets twice per year	Streets swept twice * Town developed town wide once per month sweeping of all streets	Sweep all streets 9 times per year
Revised					
6b	Maintain Catch Basin Cleaning Program	DPW	Check basins quarterly Clean basins up to twice per year	Cleaned 75% of catch basins	Town wide cleaning
Revised			Check basins annually Clean basins as required		
6c	Perform Site Visits to Examine Existing Practices at Facilities	DPW Director	Target all applicable municipal facilities by year 3		Site inspections and documentation
Revised					

6d	Train Municipal Employees at Each Facility	DPW Director	Target all applicable municipal facilities by year 3	None required	Develop site specific checklist Meet with Housing Department, Police Chief, Fire Chief, School Superintendent and Custodial staff
Revised					
6e	Perform Follow-ups to ensure Required Practices are Met	DPW Director	Target all applicable municipal facilities by year 4	None required	Develop reports from field inspections and sample check lists Conduct follow-up meeting
Revised					
Revised					

6a. Additions

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
7a	Implement BMPs listed in Section 3	DPW Director	During years 2 & 3	Track street sweeping & catch basin activities	Work with consultants and Town Manager to develop bylaws and obtain approval
Revised			Quantify sweeping and catch basin volumes Submit 3 bylaw changes/modifications		
7b	Review Winthrop Bay Existing Water Quality Data	DPW Director	Determine Winthrop contribution in year 4	Worked with regional group (Mystic River Watershed Association) to conduct two rounds of testing and track results	Review test results
Revised					

7c	Review Effect of MWRA CSO on Water Quality	DPW Director	Determine MWRA CSO contribution year 4	None required	Meet with MWRA and Surrounding community DPW's to update current CSO status
Revised					
7d	Initiate Illicit Connection Detection and Elimination Plan	DPW Director	Begin plan during year 5	None required	None planned
Revised					
Revised					

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

The Mystic River Watershed Association collected stormwater samples in Boston Harbor, Bell Isle Marsh and Lewis Lake. The samples were collected on August 24, 2005 and under dry conditions and during a falling tide. Eight samples were taken along the Winthrop frontage. Enterococcus Levels, Temperature, Dissolved Oxygen, Conductivity, and salinity were measured. The Enterococcus Levels ranged from non-detect to 178. It was noted that the areas of slightly elevated bacteria levels could be associated with dense bird activities. The temperatures ranged from 17.9 to 20.9 .

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	NO
Annual program budget/expenditures – Town meeting approval for \$10K, fully utilized in catch basin repair/replacement and disposal of debris	(\$ 10,000	None*

Education, Involvement, and Training

Estimated number of residents reached by education program(s) *5-10% by WCAT, 5-10% by posters	(# or %)	10 to 20% estimated*
Stormwater management committee established	(y/n)	Yes
Stream teams established or supported	(# or y/n)	No
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	Yes
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	8 days
▪ community participation	(%)	
▪ material collected	(tons or gal)	79 tires 38 vehicles batteries 93 lbs of CRT's 31 propane tanks 75 gals of paint 108 gals of waste oil
School curricula implemented	(y/n)	No

Legal/Regulatory

	In Place Prior to Phase II	Under Review	Drafted	Adopted
Regulatory Mechanism Status (indicate with "X")				
▪ Illicit Discharge Detection & Elimination	X occasional self audits and MWRA community assistance programs		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	(%)	90%
Estimated or actual number of outfalls	(#)	106
System-Wide mapping complete	(%)	
Mapping method(s)		
▪ Paper/Mylar	(%)	100
▪ CADD	(%)	50
▪ GIS	(%)	0
Outfalls inspected/screened	(# or %)	0
Illicit discharges identified	(#)	0

Illicit connections removed	(#) (est. gpd)	0
% of population on sewer	(%)	100
% of population on septic systems	(%)	0

Construction

Number of construction starts (>1-acre)	(#)	1
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	1
Site inspections completed	(# or %)	0
Tickets/Stop work orders issued	(# or %)	0
Fines collected	(# and \$)	0
Complaints/concerns received from public	(#)	1

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100
Site inspections completed	(# or %)	0
Estimated volume of stormwater recharged	(gpy)	Approx, 70,000 gals
<i>Comment: Recharge estimate based on two new school sites (Banks and Cummings) where large infiltration structures have been constructed</i>		

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	1
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	1

Total number of structures cleaned	(#)	500
Storm drain cleaned	(LF or mi.)	180
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	55 tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Landfill
Cost of screenings disposal	(\$)	30,000 \$500 / ton

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)	8 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Landfill
Cost of sweepings disposal	(\$)	\$500 / ton
Vacuum street sweepers purchased/leased	(#)	1
Vacuum street sweepers specified in contracts	(y/n)	Y

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

Anti-/De-Icing products and ratios	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	100
Pre-wetting techniques utilized	(y/n)	Occasionally

Manual control spreaders used	(y/n)	No
Automatic or Zero-velocity spreaders used	(y/n)	No
Estimated net reduction in typical year salt application	(lbs. or %)	5%
Salt pile(s) covered in storage shed(s)	(y/n)	Yes
Storage shed(s) in design or under construction	(y/n)	